

Volume 40 Issue 2 *June*

Article 2

2013

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Robert G. Mogull California State University, Sacramento

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Mogull, Robert G. (2013) "A Half-Century of California Poverty," *The Journal of Sociology & Social Welfare*: Vol. 40: Iss. 2, Article 2. DOI: https://doi.org/10.15453/0191-5096.3730 Available at: https://scholarworks.wmich.edu/jssw/vol40/iss2/2

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A Half-Century of California Poverty

ROBERT G. MOGULL

California State University at Sacramento

In this article, poverty statistics are examined over the past 50 years for insights on trends. Data were tabulated by Decennial Censuses for the state of California and categorized by demographic group. Trends are revealed by evidence from unique calculations of Poverty Indexes, that is, of "fair shares" of poverty. By examining 5 decades of evidence, it is found that some groups have clearly progressed—specifically Asians & Pacific Islanders, Blacks, and Hispanics, while others have found their recent poverty status deteriorate—especially the elderly, Native Americans, and Whites.

Key words: California, demographics, minorities, poverty, poverty index, racial groups

The primary goal of this paper is to examine paths of poverty over the past half-century for a variety of groups. The paths are examined with the intent of deriving insights into demographic patterns within the state of California. The 50-year analysis begins with the U.S. Census Bureau's earliest collection of poverty statistics, follows the data at 10-year intervals, and concludes with the most recent decennial snapshot. Thus, the poverty data run from the year 1959 through 2009. The Bureau's Decennial Census poverty estimates are the most comprehensive available and the only data in the early years for separate demographic groups at sub-national levels. Poverty Indexes are also developed and presented here to measure a demographic group's "fair share" of state poverty.

The year 2000 Census was the last decennial census that was employed for the collection of income and poverty data. The task of estimating annual poverty is now assigned to the American Community Survey (ACS) which, after a decade of testing, was officially launched in 2006. The ACS supplies Journal of Sociology & Social Welfare, June 2013, Volume XL, Number 2 monthly profiles for communities with populations of at least 65,000 and is sent nationwide to between 250,000 and 300,000 or roughly three million households a year. It is designed to provide a continuous profile of the nation's economic, social, and housing characteristics. As might be expected from their smaller sample sizes, however, the ACS has been evaluated as yielding "less precise measures of common variables than Census 2000 sample data" (Esri, 2011, p. 3). Similarly, the sampling error associated with the Decennial Census long form was "much lower" than that of the ACS (Blodgett, 2009, p. 3). And, in a comparison of the two data sources, there is "disproportionate underrepresentation" of racial and ethnic minorities and of children in the ACS (Lowenthal, 2006, p. 11).

The definition of poverty is a relative concept in macro terms, but it is gauged by absolute thresholds. The official definition was originally designated in 1963-64 by Mollie Orshansky of the Social Security Administration (Orshansky, 1969). Both the definition and the thresholds have provided a consistent measure of poverty since 1959 and were formally adopted in 1969 for use by all federal agencies. Poverty indexes are based upon pre-taxed earned money income and they vary according to family size. Prior to 1982, the index cut-off levels also considered the gender of the household head and whether the family resided on a farm. Changes in annual living costs are factored into the poverty thresholds using the nationwide Consumer Price Index for All Urban Dwellers. Over the years, the thresholds have grown for a representative family of four, for example, from \$2,973 in 1959 to \$23,201 in 2011. Yet, there are no adjustments for regional variations in basic living expenses. Consequently, since the typical cost of living in California exceeds the national average, poverty is substantially underestimated for the state (Bureau of the Census, 2000. p. 490).

The official poverty measures have been criticized on a wide variety of grounds. The major criticisms include: that regional differences in living costs, noncash benefits, deferred benefits, assets, and intra-household transfers are all not accounted for; money income is underreported; inter-household transfers are unreliably estimated; either median income or disposable income would be a more appropriate gauge of poverty; frequent movers and the homeless are undercounted; and the component weights within a minimally adequate diet need updating.

These numerous criticisms of the data and of the poverty definition are provided here for reasons of more than just "full disclosure." The criticisms are all meritorious and deserve the considerations that they have received in the literature. However, the criticisms are mentioned and enumerated here primarily to remind the reader that the constructions of both the concepts and measures of poverty are imperfect and embody shortcomings. Consequently, the statistics upon which inferences and conclusions are derived rest on multiple presumptions, judgments, and even (unintentional) errors.

The Evidence

Table 1 indicates an uneven growth path of poverty for individuals in California over the past half century. After a small decline of 2.1% in the 1960s, the total number of impoverished persons more than doubled by over 138% between 1969 and 2009. The most recent decade reveals a modest increase of 9% in poor persons statewide. The largest percentage increase occurred during the decade of the 1980s at 38.1%. The principal groups responsible for the 1980s rise were Hispanics (an 87.1% jump) and children (a 41.1% increase). But, since the 1980s, these two groups have experienced increasing poverty at much diminished rates. Although the upward trends in impoverished Hispanics and children continued through 2009, Hispanics have shown striking drops in incremental poverty numbers over the past two decades—from 87% to 49% and then by only 17%.

In contrast, the number of impoverished Whites leaped by 39.2% during the most recent decade. While the period from 1959 through 1979 indicates declines in the number of poor Whites, substantial increases began in the 1980s. This categorical increase is responsible for most of the rise in state total poverty numbers since year 2000. Several other demographic groups also experienced rising poverty since 1999, but their numbers are relatively small. Even if overlaps in demographic categories are ignored, the White decade increase (of 806,821) exceeds the combined total increase for all other groups (of 717,705).

Group	1959	1969	1979	1989	1999	2009
All Persons	2,199,376	2,152,716	2,626,580	3,627,585	4,706,130	5,128,708
		-2.1%	22.0%	38.1%	29.7%	9.0%
Asians & Pacific Islanders	na	na	159,626	402,161	483,915	490,265
				151.9%	20.3%	1.3%
Asians Alone	na	na	na	na	466,431	473,512
						1.5%
Pacific	na	na	na	na	17,484	16,753
Islanders Alone						-4.2%
Blacks	367,640ª	331,760	393,478	437,201	470,155	446,332
		-9.8%	18.6%	11.1%	7.5%	-5.1%
Children	na	827,915	946,576	1,335,512	1,705,797	1,808,741
			14.3%	41.1%	27.7%	6.0%
Elderly	422,280	312,776	188,618	228,441	280,411	352,097
,		-25.9%	-39.7%	21.1%	22.7%	25.6%
Female Family Heads	132,339	171,563	230,486	304,579	350,138	397,704
		29.6%	34.3%	32.1%	15.0%	13.6%
Hispanics	na	498,677	854,358	1,598,213	2,377,589	2,772,597
			71.3%	87.1%	48.8%	16.6%
Native Americans	na	na	40,348	44,746	66,635	65,258
				10.9%	48.9%	-2.1%
Whites	1,831,736	1,728,451	1,575,757	1,821,146	2,059,640	2,866,461
		-5.6%	-8.8%	15.6%	13.1%	39.2%
Non-	na	na	1,192,462	1,189,101	1,209,577	1,302,997
Hispanic Whites				-0.3%	1.7%	7.7%

Table 1. Persons in Poverty & Decade Percentage Changes

Note: na = data not available, a = African Americans and other Non-White races.

The Asians & Pacific Islanders category saw a striking rise of 152% in poverty individuals during the 1980s, a much more modest 20% rise during the 1990s, and only a 1.3% increase since year 2000. The Census Bureau did not disaggregate this combined demographic category until the 2000 Census, but it is likely that the leap during 1980s was due to the substantial increase in immigration into California from Southeast Asia.

Black poverty jumped by 18.6% in the 1970s, but has grown by decreasing percentage increments since then. The decade of the 2000s has seen a decline in the number of impoverished Black individuals by over 5%.

As mentioned, the 1980s saw a striking 41.1% increase in impoverished children (related and under age 18) but by very much smaller increments afterwards. Their path parallels the declining percentage increments exhibited by Hispanics over the decades.

The elderly (age 65 and over) saw strong declines in poverty numbers through both the 1960s and the 1970s, but then substantial numeric increases beginning with the 1980s. In each succeeding decade their poverty increase has grown by larger and larger percentages. More will be said of this.

Female family heads (FFH) have experienced continuously declining percentage increments in their numbers of poor since the 1970s, from 34% to 14%. Native Americans saw a particularly large 49% jump during the 1990s, but then a slight decline of 2% in the 2000s. There have been increasing rates of rising poverty individuals over the past 30 years for Non-Hispanic Whites.

In brief: as shown in Table 1, the growth in impoverished individuals within the state of California has fluctuated greatly over the past five decades, with the largest numeric increases occurring from the 1970s through the 1990s. Some groups have seen rising rates of increase at the same time that others have seen either declines or a much more modest increase. Thus, there is no overall uniformity in the percentage growth patterns of numeric changes among the diverse demographic groups.

Whereas the evidence from Table 1 primarily implicates the impact of poverty numbers upon state social services, Table 2 focuses upon the impact of poverty within the specific demographic groups. That is, Table 2 indicates the relative hardships or needs of the individual groups. Among all persons, the incidence (i.e., rate) of poverty declined significantly for two decades after 1959, but then rose continuously until 1999 when it leveled off at 14.2%.

The incidence of statewide poverty was particularly high in the 1950s and then again in the 1990s and 2000s. The highest rates of poverty within the state have been consistent over the decades for certain demographic groups, such as among FFH,

Group	1959	1969	1979	1989	1999	2009
All Persons	14.4	11.1	11.4	12.5	14.2	14.2
		-22.9	2.7	9.6	13.6	0.0
Asians & Pacific	na	na	12.4	14.3	12.9	10.5
Islanders				15.3	-9.8	-18.6
Asians Alone	na	na	na	na	12.8	10.4
						-18.8
Pacific Islanders	na	na	na	na	15.7	12.5
Alone						-20.4
Blacks	30.7ª	24.6	22.5	21.1	22.4	20.8
		-19.9	-8.5	-6.2	6.2	-7.1
Children	na	12.7	15.2	17.8	19.0	19.6
			19.7	17.1	6.7	3.2
Elderly	31.1	17.4	8.3	7.6	8.1	8.7
		-44.1	-52.3	-8.4	6.6	7.4
Female Family	36.0	29.8	26.1	26.2	25.0	25.0
Heads		-17.2	-12.4	0.4	-4.6	0.0
Hispanics	na	16.3	19.1	21.6	22.1	20.6
			17.2	13.1	2.3	-6.8
Native Americans	na	na	17.9	18.6	21.9	22.9
				3.9	17.7	4.6
Whites	13.1	9.9	8.9	9.1	10.5	12.6
		-24.4	-10.1	2.2	15.4	20.0
Non-Hispanic	na	na	7.7	7.3	7.8	8.7
Whites				-5.2	6.8	11.5

Table 2. Poverty Rates & Decade Changes (All in percentages.)

Note: na = data not available, ^a = African Americans and other Non-White races.

Blacks, Hispanics, Native Americans, and children. Yet, there have been notable declines in rates for several groups—such as for Blacks and Hispanics. In addition, the rate of increase has also declined for children—from 19.7% in the 1970s to 3.2% in the 2000s. Nevertheless, the lowest incidences of poverty among all groups are consistently those for Non-Hispanic Whites and the elderly.

Several groups have found their rates markedly decline in recent decades—particularly Asians, Pacific Islanders, and Blacks. However, from the perspective of the multiple census snapshots, we see that Whites in general, as well as Non-Hispanic Whites more narrowly, have experienced their largest percentage increases in recent years, with 20% and 11.5% respectively since year 2000. No other group approaches these current decade percentage increments. Whereas the statewide overall rate of poverty remained static in 1999 and 2009, this stability has been achieved by a balance between the strongly declining incidences of several groups contrasted with the significant growth of the White incidence.

Table 3 provides valuable additional dimensions to the examination of state poverty over the past half-century. Consider the Asians Alone demographic category as an example. In 1999, impoverished Asians accounted for 9.9% of all California impoverished residents, 10.9% of the entire state resident population and, consequently, a ratio between its share of total poor to share of total population of 90.8%. If exactly proportionate, this ratio would be 100%. That is, when a group's share of the entire state poor matches its share of the total state population, then a ratio of 100% is "fair" and mathematically justifiable. A Poverty Index (PI) is developed and reported here to represent the degree of "fair share" poverty that is attributable to a demographic group. A PI above 100% would indicate an excessive share of overall state poverty by a group. And, a PI under 100% would identify a group's underrepresentation within state total poverty.

Asians & Pacific Islanders (A&PI) have both seen large declines in their poverty to population ratios in recent decades. The Asians Alone PI_A fell 20% between 1999 and 2009, while the Pacific Islanders Alone PI_p plummeted 44% within the same short time period (the only Decennial Census data periods available for the separated groups). When classified into a single racial category (since 1979), the number of impoverished (A&PI) individuals leaped 207% (Table 1) while their poverty rate dropped by 15% (Table 2). Noting their shares both of total poverty and of total population (in Table 3), we find a strong decline in the combined group PI_{AP} to just 74% by year 2009.

Population	15,717,204	19,953,134	23,667,902	9,760,021	33,871,648	36,202,780
Group	1959	1969	1979	1989	1999	2009
Asians & Pacific Islanders	na	na	6.1	11.1	10.3	9.6
			5.3	9.6	11.3	13.0
			115.1	115.6	91.2	73.8
Asians Alone	na	na	na	na	9.9	9.2
	2.3	3.1	5.0	9.2	10.9	12.6
					90.8	73.0
Pacific Islanders Alone	na	na	na	na	0.4	0.3
			0.3	0.4	0.3	0.4
					133.3	75.0
Blacks	16.7	15.4	15.0	12.1	10.0	8.7
	5.6	7.0	7.7	7.4	6.7	5.9
	298.2	220.0	194.8	163.5	149.3	147.5
Children	na	38.5	36.0	36.8	36.2	35.3
	34.7	33.3	26.2	26.0	26.7	25.5
		115.6	137.4	141.5	135.6	138.4
Elderly	19.2	14.5	7.2	6.3	6.0	6.9
	8.8	9.0	10.2	10.5	10.6	11.1
	218.2	161.1	70.6	60.0	56.6	62.2
Female Family Heads	6.0	8.0	8.8	8.4	7.4	7.8
		2.9	3.8	4.0	4.3	4.4
		275.9	231.6	210.0	172.1	177.3
Hispanics	na	23.2	32.5	44.1	50.5	54.1
	9.3	15.3	19.2	25.8	32.4	37.1
		151.6	169.3	170.9	155.9	145.8
Native Americans	na	na	1.5	1.2	1.4	1.3
			0.9	0.8	1.0	0.8
			166.7	150.0	140.0	162.5
Whites	83.3	80.3	60.0	50.2	43.8	55.9
	92.0	89.0	76.2	69.0	59.5	62.8
	90.5	90.2	78.7	72.8	73.6	89.0
Non- Hispanic Whites	na	na	45.4	32.8	25.7	25.4
			66.6	57.2	46.7	41.5
			68.2	57.3	55.0	61.2

Table 3. Share of Poverty / Share of Population = Poverty Index (All numbers are percentages, except populations.)

Note: na = data not available.

Blacks stand out among the demographic categories. They exhibit consistently high yet remarkably diminishing ratios over the half-century. This decline in their ratios has been exceptional. In 1959 their PI_{B} ratio was 298% and by 2009 it had more than halved to 148%. Although still comparatively and disproportionately high, this long-term decline over the decades has been unique among all demographic groups.

Children have been a consistent poverty problem over the years. Their ratio peaked in the 1980s and has never been low—averaging a disproportionate $PI_c = 134\%$ across the measured years. Further, the proportion ratios of children have risen continuously in relation to FFH proportion ratios—from $PI_c / PI_F = 42\%$ in 1969 to 78% in 2009. Hence, the linkage over the years between the poverty of children and that of husbandless female household heads has grown even closer.

The elderly have had disproportionately low ratios since the 1970s which have consistently declined since measurement began in 1959. The most recent decade has been an exception. Since 1999, their share of total state poverty rose from 6% to 6.9% and, in addition, their share of the state's population has consistently increased from decade to decade. However, the increase in their poverty share has exceeded by 319% the increase in their population share during the most recent decade. Consequently, their ratio during the last recent decade has jumped from $PI_E = 57\%$ to 62%, and this increase in the proportion ratio contrasts with the previously measured four decades of decline.

Female family heads are notable for exhibiting consistently high ratios. No other demographic group comes close to matching their disproportionately high Poverty Index ratios from one decade to another. It is not their share either of total state poverty or of total state population that is remarkable. Rather, it has been the ratio of the two shares. Over the preceding 50 years, their Index ratios have surpassed every other demographic group in disproportionate magnitudes. Yet, their disproportionate shares have also been declining over the years—although the most recent decade was a comparatively minor exception.

Hispanics represent another group with a particularly notable path. Their share of total state poverty has more than

doubled, from 23% in 1969 to 54% in 2009. This increase was due primarily to their exploding share of the state overall population—from 9% in 1959 to 37% in 2009. However, their proportion ratio peaked during the 1980s at $PI_{H} = 171\%$ and has since dropped to "only" 146% in 2009. Thus, their most current Poverty Index lies below several other groups—including those of Blacks, FFH, and Native Americans.

Native Americans are a small share both of state overall poverty and of the state total population. However, their Index is currently exceeded by that of FFH only. This was not always the case. After declining from the 1970s through 1990s, it rebounded by 2009. This abrupt jump may have been due to the maturity of and/or the developing competition from within the gaming industry—which had been set aside exclusively for this group in the 1980s and 1990s by the California legislature. Perhaps the rebound was also caused by the general economic contraction. In any event, their current disproportionate Index of 163% almost matches their 167% status before the development of the gaming industry.

Whites are numerically the largest racial group, representing 63% of all state residents (for whom poverty status is determined) in year 2009. Generally, this group has had low proportion ratios over the decades—averaging around 82%. From 1959 through 1989 their ratio of poverty to population shares declined (to $PI_w = 73\%$). However, it climbed thereafter—especially after 1999—to 89%. Although the White share of state poverty declined continuously through 1999 (to 44%), it escalated sharply (to 56%) by 2009. The White poverty leap after 1999 is also reflected by the unprecedented 39% decade increase of individuals (Table 1) and by the 20% decade increase of incidence (Table 2). Thus, the evidence from the three tables are reinforcing.

Among the demographic groups with low Poverty Indexes, Non-Hispanic Whites are consistently the lowest. Their "fair share" ratios fall below all other groups and have remained in a narrow range of around 60%. These low ratio proportions are comprised of both falling poverty and population shares. During the most recent decade, however, their proportion of the state overall population has dropped more rapidly than their share of state total poverty and has resulted in a ratio increase from $PI_{NH} = 55\%$ (in 1999) to 61% (in 2009). This demographic categorical evidence is additionally confirmed by the 7.7% increase in impoverished individuals (Table 1) and by the 11.5% increase in their poverty rate (Table 2) by year 2009. The surprising jump in the Non-Hispanic White poverty proportion index is likely due to their contracting share of the state population and to its comparative aging over recent decades. In other words, the aging of the shrinking White population share can explain the recent leap in the White poverty index. This linkage of evidence has support from all three tables.

Summary & Highlights

The goal of this paper has been to trace poverty statistics for the state of California over the past half-century. Data provided by the U.S. Census Bureau permitted decade-spaced snapshots since 1960 (for poverty since 1959). After the Decennial Census of 2000, the American Community Survey furnished the state poverty data (for year 2009). An additional goal was to infer patterns and directions of state impoverishment both for individual demographic groups as well as an overall perspective. Three tables of data and author calculations allowed for the analyses. A unique Poverty Index was developed to indicate each demographic group's "fair share" of overall state poverty.

Table 1 indicated that the number of impoverished individuals in California more than doubled between 1959 and 2009, with the largest percentage increase taking place during the 1980s. The 1980s growth was fueled primarily by the numerically large and expanding populations of Hispanics and children. Since that decade, the two groups have still experienced increasing poverty but at much reduced rates. In recent years, the number of impoverished Whites has leaped, where the increase also began during the 1980s. Further, there has been an increase in the percentage growth of poverty individuals for Whites and Non-Hispanic Whites since 1989.

Table 2 presented evidence of increasing rates of overall state poverty until 1999, when the incidence leveled off at 14.2%. Again, as similarly revealed by Table 1, Whites and Non-Hispanic Whites experienced their greatest growth in poverty rates within the most recent decade. Since 1999, Whites have experienced a unique 20% rise in their poverty incidence. Declining poverty rates among several other demographic groups and reduced increases for others counterbalanced the exploding White rate, thus allowing the overall state poverty incidence to level off. Especially notable in the last decade were the fall in rates among Blacks and the populous Hispanics and the abrupt drops for Asians and Pacific Islanders. After decades of declines, the elderly are experiencing growing poverty rates.

Table 3's unique calculations provided valuable additional dimensions to the analysis. FFH stand out in their disproportionate shares of state poverty which, although typically declining, exceed those of all other demographic groups. The Black demographic category is also prominent for exhibiting consistently high and impressively diminishing ratios over the half-century-declining a remarkable 50%. Due to their growth in population, the Hispanic influence on overall state poverty has been great. Yet, the Poverty Index ratios for this group have markedly fallen over the most recent two decades. Non-Hispanic Whites have consistently exhibited the lowest "fair share" ratios, although there was an increase during the preceding last decade. Reinforcing the evidence from both Tables 1 and 2, the Poverty Indexes for Whites have grown since the 1980s, but particularly during the most recent decade of analysis. All three tables appear to confirm a correlation between the shrinking White share of the state population with an aging of Whites in explaining the growth of poverty indexes for both Non-Hispanic Whites and Whites in general.

In brief: we have seen both progress and retrogression among the trends. Long-term progress has been especially notable for certain demographic groups—such as for Asians & Pacific Islanders, Blacks, female family heads, and Hispanics. However, on the negative side of the ledger, in recent years certain groups have especially stood out—such as Native Americans and the populous White demographic group.

References

Blodgett, J. (2009). The American Community Survey vs. the Decennial Census Long Form. Missouri Census Data Center, June 2009.

- Bureau of the Census. (1961, May). Characteristics of the Population. U.S. Census of Population: 1960 [Vol. 1, Part 1, U.S. Summary, Table 56].
- Bureau of the Census. (1961, May). Persons of Spanish surname. U.S. Census of Population 1960 [Subject Reports, Final Report, PC(2)-1B, Table A-2].
- Bureau of the Census. (1975, December). Poverty status in 1969 and 1959 of persons and families, for states, SMSA's, central cities, and counties: 1970 and 1960. 1970 Census of Population [Supplementary Report, PC(S1)-105, Tables 1,2,3,4].
- Bureau of the Census. (1973, April). Characteristics of the population. 1970 Census of Population [Vol. 1, Part 6, California, Sections 1 and 2, Tables 2, 16, 17, 20, 22, 58, 69, 139, 209].
- Bureau of the Census. (1983, July). General social and economic characteristics. *1980 Census of Population, California* [Vol. 1, Part 6, Chapter C, PC80-1-C6, Tables 59, 62, 72, 82, 83, 92, 104].
- Bureau of the Census. (n.d.). Profile of general demographic characteristics: 2000. American FactFinder, California, DP-1, Summary File 1, 100-Percent Data. Retrieved from http:// factfinder2.census.gov/faces/tableservices/jsf/pages/ productview.xhtml?src=bkmk
- Bureau of the Census. (2003, July). U.S. Summary: 2000. 2000 Census of Population and Housing [Summary Social, Economic, and Housing Characteristics, PHC-2-1/PT.1, Table 8]. Retrieved from http://www.census.gov/prod/cen2000/phc-2-1-pt1.pdf
- Bureau of the Census. (n.d.). Statistical abstract of the United States: 2000 [Table 771, p. 490]. Washington, DC.
- Bureau of the Census. (n.d.). Poverty status in the past 12 months by household type by age of householder. California, 2009 American Community Survey 1-Year Estimates [Table B17017]. Washington, DC.
- Bureau of the Census. (n.d.). Poverty status in the past 12 months. California, 2009 American Community Survey 1-Year Estimates [Table S1701]. Washington, DC.
- California State Census Data Center. (1983, July). Summary tape file one. 1980 Decennial Census [File 1].
- Dept. of Finance, California State Census Data Center. (1991, February). Population and percent distribution by race. 1990 Census [Report C90-PL-1, Tables 1, 3].
- Dept. of Finance, California State Census Data Center. (1991, May). 1990 Census Summary [Tape File 1A]. Census of Population and Housing, 1990 [Tables P1-P16].
- Esri. (2011, April). *The American Community Survey* [An Esri White Paper].Redlands, CA: Esri. Retrieved from http://www.esri. com/library/whitepapers/pdfs/the-american-communitysurvey.pdf

- Lowenthal, T. A. (2006, August). *American Community Survey: Evaluating accuracy.* Baltimore, MD: Population Reference Bureau. Retrieved from http://www.aecf.org/upload/publicationfiles/ da3622h1266.pdf
- Orshansky, M. (1969). How poverty is measured. Monthly Labor Review, XCII, February, 37-41.