WAVE 4 ATTRITION APPENDIX

A unique consideration for panel surveys such as the Kaiser Family Foundation California Longitudinal Panel Survey is whether those who participate in subsequent waves are different in terms of their attitudes or demographics than those who refuse to participate again or were unable to be re-contacted. Of the total 2,001 respondents who completed Wave 1, 1,219 participated in Wave 2, 1,105 completed Wave 3, and 1,001 completed Wave 4. These completion rates are within an expected range given that the uninsured are already a difficult to reach population since many are lower income, younger, undocumented immigrants, and members of racial/ethnic minority groups, and may change phone numbers or move more often than the public at large. After data collection was complete, data from Wave 1 and Wave 4 were compared to evaluate the impact of some respondents not completing Wave 4, referred to as attrition. Wave 4 respondents included those who completed all four waves (n=764) as well as those who completed Waves 1 and 4 only (n=52), those who completed Waves 1, 2, and 4 (n=87), and those who completed Waves 1, 3, and 4 (n=98). The analysis was designed to assess whether: (1) The makeup of respondents differed systematically between the waves; and (2) whether these differences correspond with bias as far as the study's substantive questions.

As detailed below in Table A1, we compared Wave 1 question responses for the total Wave 1 and Wave 4 samples to assess whether Wave 4 consists of respondents who answered Wave 1 differently than the full Wave 1 sample. The table also includes comparisons for the subsample of Wave 4 respondents who have completed all four waves. The weighted columns indicate whether any differences in sample characteristics and substantive responses were minimized through Wave 4 weighting. The comparison indicates that the greatest difference between the complete Wave 1 sample and the Wave 4 sample centers on respondents with lower educational attainment (8 percentage points less in Wave 4), Spanish speaking (7 percentage points less in Wave 4), undocumented respondents (6 percentage points less in Wave 4), male respondents (5 percentage points less in Wave 4), cell phone respondents (6 percentage points less in Wave 4), and respondents under age 30 (4 percentage points less in Wave 4), along with an increase in the share of white respondents as well as a decrease in the share of Hispanic respondents (6 and 7 percentage points, respectively). This seems to indicate that the harder-to-reach (namely undocumented), more transient (cell phone), and younger respondents were slightly less likely to be reached and to complete the Wave 4 interview. These differences are similar to the differences among those who completed all four waves of the survey. However, these demographic differences between the samples did not translate into meaningful differences on the questions of self-reported party identification, self-reported health status, or whether respondents reported having a usual source of care at Wave 1. Furthermore, once the sample was weighted as it would be in any case, only slight demographic differences remained. The variables not included in the weighting were hardly affected by weighting, or became more similar to Wave 1 (Table A2). Overall, this analysis finds fairly small observable differences between Wave 4 respondents and the full Wave 1 sample as far as Wave 1 responses. Attrition does not appear to introduce significant bias, and most differences are addressed by weighting (that was specifically designed to match the Wave 1 sample, adding parameters such as language of interview and income relative to the federal poverty level (FPL)).

Table A2: Wave 1 To Wave 4 Sample Comparisons For Wave 1 Questions (Weighted And Unweighted)								
	Unweighted				Weighted			
	Wave 1 (n= 2001)	Completed Wave 4 (n=1001)	Completed all 4 Waves (n=764)	Percentage Point Difference (W1 – W4 Total)	Wave 1	Completed Wave 4	Completed all 4 Waves	Percentage Point Difference (W1 – W4 Total)
Gender								
Male	48%	43%	41%	5	54%	53%	50%	1
Female	52%	57%	59%	-5	46%	47%	50%	-1
Race/ Ethnicity								
White	27%	33%	36%	-6	26%	27%	28%	-1
Black	7%	8%	8%	-1	5%	5%	5%	0
Hispanic	58%	51%	48%	7	56%	55%	54%	1
Other Race	8%	8%	8%	0	13%	12%	13%	1
Age								
19 to 29	23%	19%	17%	4	33%	31%	28%	2
30 to 39	21%	19%	19%	2	24%	23%	24%	1
40 to 49	22%	20%	19%	2	21%	22%	23%	-1
50 to 64	35%	43%	45%	-8	22%	24%	25%	-2
Education								
HS or less	57%	49%	47%	8	58%	57%	57%	1
Some college	28%	33%	34%	-5	29%	29%	29%	0
College Grad+	15%	17%	18%	-2	12%	13%	14%	-1
Phone status								
Landline	49%	55%	56%	-6	42%	45%	48%	-3
Cell	51%	45%	44%	6	58%	55%	52%	3
Marital status								
Married	33%	34%	33%	-1	37%	38%	37%	-1
Not Married	67%	65%	67%	2	62%	62%	63%	0
Family income								
<138% FPL	60%	57%	57%	3	52%	53%	55%	-1
138%-400% FPL	30%	33%	33%	-3	36%	34%	33%	2
400%+ FPL	5%	6%	6%	-1	7%	7%	6%	0
Language of interview								
English	63%	70%	72%	-7	65%	66%	64%	-1
Spanish	37%	30%	28%	7	35%	34%	34%	1

Table A3: Wave 1 And Wave 4 Sample Comparisons For Wave 1 Questions Not Used In Weighting (Weighted And Unweighted)								
	Unweighted				Weighted			
	Wave 1 (n= 2001)	Completed Wave 4 (n=1001)	Completed all 4 Waves (n=764)	Percentage Point Difference (W1 – W4 Total)	Wave 1	Completed Wave 4	Completed all 4 Waves	Percentage Point Difference (W1 – W4 Total)
Resident Status								
Citizen/ legal immigrant	79%	85%	86%	-6	78%	81%	81%	-3
Undocumented immigrant	20%	14%	13%	6	21%	18%	18%	3
Party Identification								
Republican	11%	13%	13%	-2	11%	11%	12%	0
Democrat	35%	39%	39%	-4	32%	34%	34%	-2
Independent	35%	32%	32%	3	37%	36%	35%	1
Other	9%	8%	8%	1	9%	9%	9%	0
Length of time uninsured prior to ACA								
2 months to less than a year	12%	11%	11%	1	13%	11%	11%	2
1 year to less than 2 years	12%	12%	13%	0	14%	13%	15%	1
2 years or more	48%	53%	55%	-5	44%	45%	45%	-1
Never insured	28%	23%	21%	5	29%	30%	30%	-1
Self-reported health status								
Excellent/Very good/Good	59%	60%	60%	-1	62%	62%	64%	0
Fair/Poor	41%	40%	40%	1	38%	37%	36%	-1
Debilitating Chronic Condition								
Yes	16%	19%	21%	-3	13%	15%	15%	-2
No	84%	81%	79%	3	87%	84%	85%	3
Usual place for care								
Yes	61%	63%	63%	-2	56%	57%	57%	-1
No	39%	36%	37%	3	43%	42%	43%	1

An indicator consistent with this observation is the mean Wave 1 Weight of the Wave 4 sample. This value, 0.979 (SE=0.031), indicates that the measure to which Wave 4 respondents further accentuated Wave 1 non-response patterns (corresponding with smaller weights) was relatively small, about 2%. For those who responded to all four waves, this value was slightly smaller (0.973; SE=0.036), but still indicative of overall similarity between responders and non-responders.

We also compared the unweighted demographics for those who completed Wave 4 with those who didn't (a typical nonresponse analysis) and there are some differences between these two groups. Those who did not participate in Wave 4 were somewhat more likely to be younger, male, Hispanic, undocumented, have lower levels of education, report never having had health insurance, or prefer taking the survey in Spanish. In order to further isolate the demographic factors associated with completing the Wave 4 survey or not, we conducted a logistic regression analysis. After controlling for demographic characteristics such as income, race/ethnicity, and party identification, the factors associated with completing Wave 4 include being interviewed on a landline telephone, being older, having a disability, and having higher levels of education. The factors associated with not completing Wave 4 are being male and being Hispanic as well as being undocumented. This pattern is similar when looking at those who completed all 4 waves as well as those who have not participated since taking the initial baseline survey. As noted above, weighting corrects for some of these differences.