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Appendix: Assignment of household income, use of alternative samples, and changes in the NHIS survey over time.

There are two annual family income questions asked by NHIS throughout the study years. The first question asks whether family income is less than \$20,000 or \$20,000 or more, while the second question asks participants to categorize their annual family incomes into income categories. From 1986 to 1996, the NHIS reports total household income for 27 income categories, in \$1,000 intervals up to \$20,000 and then \$5,000 intervals up to \$50,000. All household incomes above \$50,000 are top coded. From 1997 to 2005, the NHIS reports total household income for 11 categories, in \$5,000 intervals up to \$25,000, and then in \$10,000 intervals up to \$75,000. All household incomes above \$75,000 are top coded.

Although Case, Lubotsky, and Paxson (2002) – henceforth CLP - exclude children who were missing income from their analysis, this is a potential concern as children missing income information in the NHIS may not be a random sample of children. This is of particular concern since the fraction of children missing income information increases over time in the NHIS. As can be seen in Appendix Table 1, the percent of children missing the dichotomous family income variable increases from 3.2% in 1986 to 5.7% in 2005. The percent of children missing information from the more detailed income category question increased from 11.3% in 1986 to 19.8% in 2005.

We therefore depart from CLP, and include in our analyses imputed income in cases where income is missing. For 1990 to 2005, we use income imputations provided by NCHS. For 1990 to 1996, NCHS applies the hot deck imputation method to impute income<sup>1</sup>. For 1997 to 2005, NCHS uses multiple imputation methods resulting in five imputed income files<sup>2</sup>. For 1997 to 2005, we use the first of these five imputed income files for our analysis.<sup>3</sup>

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<sup>1</sup> For more detail, please see [http://www.cdc.gov/nchs/products/elec\\_prods/subject/impute.htm](http://www.cdc.gov/nchs/products/elec_prods/subject/impute.htm)

<sup>2</sup> For more detail, please see <http://www.cdc.gov/nchs/about/major/nhis/2005imputedincome.htm>

<sup>3</sup> Analyses relying on multiple-imputation methods would result in higher standard errors on income compared to single-imputation methods that do not account for the extra uncertainty due to imputation. In an analysis using NHIS 2001, for example, Schenker et al. (2006) find that standard errors for the percentage of persons

For data prior to 1990, there is no imputed income file published by NCHS. For 1986 to 1989, we impute income using sequential regression multivariate imputation (SRMI) (Raghunathan et al. 2001), as implemented by the ICE command in STATA. Variables used to impute income include whether the mother (father) was present in the household, marital status of household head, parental education, parental employment status, age, family size, region, segment income<sup>4</sup> and overall health status.

Following the algorithm used by NCHS to impute income for 1990 to 1996, we first impute the dichotomous family income variable (less than \$20,000, \$20,000 and over) and then, based on the imputed dichotomous income variable, we impute the detailed 27-category family income variable. The imputations for both the dichotomous and detailed annual family income variables were performed separately for the following three groups based on the age of the family's reference person: (1) 18-24 years of age, (2) 25-64 years of age, and (3) 65 years of age and over.

Appendix Table 2 shows the distribution of children across the 27 income categories income by imputation status for 1986 to 1989. We can see that observations with missing family income are disproportionately from lower income families, an observation that is also found in the 1990-1996 imputed income files<sup>5</sup>.

Finally, and again following CLP, we assign precise incomes to income brackets using information from the 1986 to 2005 March Current Population Survey (CPS) data.

Specifically, for each income category in each year, we calculate the mean total household income in the CPS for households whose head's education matches that of the reference

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aged 45-64 in fair or poor health by category of poverty ratio are underestimated by up to 15 percent using a single imputation compared to a multiple imputation method for observations missing income. None of the findings in our paper would, however, be affected if standard errors on income were multiplied by 20 or even 50 percent.

<sup>4</sup> Segment income refers to the mean annual family income for residents of a sample segment. Families from the same segment are neighbors and hence tend to have similar family incomes.

<sup>5</sup> See Tables 6 to Table 12 from the NCHS publication "METHODS USED TO IMPUTE ANNUAL FAMILY INCOME IN THE NATIONAL HEALTH INTERVIEW SURVEY, 1990-96" (available for download at [http://www.cdc.gov/nchs/products/elec\\_prods/subject/impute.htm](http://www.cdc.gov/nchs/products/elec_prods/subject/impute.htm))

person in the household and whose income falls into that category. For households containing both a reference person and a spouse, we used the education of the male (whether he was the reference person or not) to match income information across the datasets.

The resulting mean income by year closely tracks that found in the CPS, as shown in Appendix Figure 1a. Since we were concerned about possible underreporting of income, we also compared NHIS and CPS income for those with incomes less than \$35,000. As shown in Figure 1b, incomes in the lower part of the income distribution also track closely.

#### Estimates Using Consistent Income Imputations

We prefer the estimates using the official NCHS income imputations. However, we have also re-estimated all of the models using a consistent set of income imputations generated using the same method that we used for the 1986 to 1989 data (i.e. as described above). These estimates are shown in Appendix Tables 3 to 8. This makes little difference to our conclusions.

#### Estimates Using an Alternative Sample

As discussed in the text, we start with all children under the age of 18, and drop children who were not living with at least one of their parents, were not children of a reference person or spouse, or were living in a household containing more than one family. These sample restrictions result in dropping about 9 percent (48,621) of the original sample of 542,176 children with non-missing information on family income. Because the children in our sample may not be a random sample of the NHIS children, we have, however, performed all of the analyses in this paper including these children. For these analyses, we excluded independent variables measuring attributes of parents (age, education, and employment status). As expected, the omission of these independent variables resulted in a stronger estimated relationship between income and children's health and use of health services. But the patterns of changes in the effect of income over time and by child age, and the estimated impact of Medicaid/SCHIP eligibility on these patterns, were not materially affected. These

results are shown in Appendix Tables 8 through 12.

#### Changes in the NHIS Survey over Time

One of the difficulties in conducting an analysis of changes over time using the NHIS, is that the survey was substantially changed in 1997. We have verified that the increase in mean income over time discussed in the text does not stem from changes in survey design. It is easy to see that income trends upwards in the CPS as well (Appendix Figure 1a). Also, the income numbers are very similar in the two data sets. Similarly, Appendix Figure 2 shows that there was very little change in the maternal reports of child health over time.

The changes in the reporting of parental education, one of our control variables, are potentially more problematic. Up until 1997, education was reported in completed years, whereas beginning in 1997, respondents were asked about completed educational credentials. This change in the wording of the question produced an increase in the number of mothers with more than 12 years of education, and a decrease in the number of mothers with exactly 12 years of education. Nevertheless, as Appendix Figure 3 shows, most of the mean differences in education levels that appear in Table 2 are the result in trends towards more education over time, and are not the result of changes in the NHIS survey questions.

Appendix Table 1: Percent of Children with Missing Values for the  
Dichotomous and Detailed Annual Family Income Questions

	Percent of children with missing values for the dichotomous income variable	Percent of children with missing values for the detailed family income category
1986	3.17%	11.31%
1987	2.33%	11.12%
1988	2.34%	12.63%
1989	2.59%	13.51%
1990	2.09%	13.52%
1991	2.24%	14.92%
1992	2.47%	15.40%
1993	2.61%	13.71%
1994	2.86%	14.81%
1995	3.25%	13.53%
1996	3.26%	14.29%
1997	3.56%	14.27%
1998	3.93%	17.07%
1999	4.68%	19.76%
2000	4.96%	20.96%
2001	4.98%	20.19%
2002	5.74%	20.43%
2003	5.99%	22.20%
2004	7.39%	20.83%
2005	5.65%	19.78%

Universe: All children in the NHIS under age 18.

Appendix Table 2: Percent Distribution of 1986-1989 Annual Family Income  
By Income Imputation Status

Income Category	Reported		Imputed	
	Num. of Obs.	Percent	Num. of Obs.	Percent
Less than \$1,000	668	0.65%	80	0.55%
\$ 1,000 - \$ 1,999	966	0.94%	140	0.96%
2,000 - 2,999	1,367	1.33%	206	1.41%
3,000 - 3,999	1,540	1.50%	249	1.71%
4,000 - 4,999	1,856	1.81%	314	2.16%
5,000 - 5,999	2,001	1.95%	375	2.57%
6,000 - 6,999	2,086	2.03%	391	2.68%
7,000 - 7,999	2,049	2.00%	321	2.20%
8,000 - 8,999	1,904	1.85%	338	2.32%
9,000 - 9,999	1,907	1.86%	358	2.46%
10,000 - 10,999	2,501	2.44%	461	3.16%
11,000 - 11,999	1,564	1.52%	273	1.87%
12,000 - 12,999	2,430	2.37%	419	2.88%
13,000 - 13,999	1,656	1.61%	277	1.90%
14,000 - 14,999	1,633	1.59%	306	2.10%
15,000 - 15,999	2,551	2.48%	458	3.14%
16,000 - 16,999	1,748	1.70%	308	2.11%
17,000 - 17,999	1,844	1.80%	301	2.07%
18,000 - 18,999	2,437	2.37%	467	3.21%
19,000 - 19,999	2,691	2.62%	491	3.37%
20,000 - 24,999	10,229	9.96%	1,239	8.51%
25,000 - 29,999	10,232	9.96%	1,245	8.55%
30,000 - 34,999	10,138	9.87%	1,240	8.51%
35,000 - 39,999	7,494	7.30%	967	6.64%
40,000 - 44,999	6,749	6.57%	866	5.94%
45,000 - 49,999	5,138	5.00%	649	4.46%
\$50,000 and over	15,320	14.92%	1,828	12.55%

Among all children in the 1986-1989 NHIS, the table reports the distribution of observations by income range both for children whose family income was reported, and for children whose family income was imputed.

Appendix Table 3: Mean Characteristics of the NHIS Sample by Child Age Group and Time Period  
Consistent Income Imputation Method

1986-1995	All	Ages 0-3	Ages 4-8	Ages 9-12	Ages 13-17
<b>Child Characteristics</b>					
Parent-Assessed Health (Excellent = 1 to Poor =5)	1.69	1.66	1.68	1.68	1.72
Parent-Assessed Health for Children Under Poverty	2.03	1.97	2.00	2.04	2.15
Less Than Excellent Health	0.47	0.45	0.47	0.46	0.48
Less Than Excellent Health for Children Under Poverty	0.62	0.59	0.61	0.63	0.66
No Doctor Visit in the Past Year	0.20	0.07	0.17	0.28	0.27
No Doctor Visit in the Past Year for Children Under Poverty	0.25	0.10	0.22	0.34	0.36
Family Income (1986 Dollars)	29,352	27,245	28,660	29,872	31,371
Family Size	4.4	4.1	4.4	4.5	4.4
No Mom Present	0.01	0.01	0.01	0.02	0.02
No Dad Present	0.20	0.17	0.20	0.21	0.22
Male	0.51	0.51	0.51	0.51	0.52
Non-Hispanic Black	0.14	0.13	0.14	0.14	0.14
Hispanic	0.12	0.13	0.12	0.12	0.11
Non-Hispanic Other Race	0.04	0.04	0.04	0.04	0.04
<b>Parent Characteristics (If Parent Present)</b>					
Mom's Age (Years)	35.0	29.4	32.9	36.5	40.5
Dad's Age (Years)	37.8	32.2	35.7	39.3	43.4
Mom Has Less Than 12 Years of Education	0.18	0.17	0.17	0.18	0.19
Mom Has 12 Years of Education	0.41	0.39	0.41	0.42	0.43
Dad Has Less Than 12 Years of Education	0.16	0.15	0.15	0.17	0.18
Dad Has 12 Years of Education	0.36	0.37	0.37	0.36	0.36
Dad Unemployed	0.03	0.04	0.03	0.03	0.03
Mom Unemployed	0.04	0.05	0.04	0.04	0.03
<i>Observations</i>	<i>265,611</i>	<i>57,206</i>	<i>76,687</i>	<i>60,329</i>	<i>71,389</i>
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1996-2005					
<b>Child Characteristics</b>					
Parent-Assessed Health (Excellent = 1 to Poor =5)	1.62	1.54	1.60	1.63	1.67
Parent-Assessed Health for Children Under Poverty	1.93	1.82	1.91	1.98	2.04
Less Than Excellent Health	0.44	0.40	0.43	0.45	0.47
Less Than Excellent Health for Children Under Poverty	0.59	0.50	0.57	0.61	0.63
No Doctor Visit in the Past Year*	0.13	0.06	0.11	0.17	0.17
No Doctor Visit in the Past Year for Children Under Poverty	0.17	0.08	0.15	0.42	0.25
Family Income (1986 Dollars)	37,974	35,715	37,108	38,661	40,015
Family Size	4.3	4.1	4.4	4.5	4.3
No Mom Present	0.03	0.01	0.02	0.03	0.04
No Dad Present	0.20	0.17	0.20	0.22	0.23
Male	0.51	0.51	0.51	0.51	0.52
Non-Hispanic Black	0.13	0.12	0.13	0.14	0.13
Hispanic	0.16	0.18	0.16	0.15	0.14
Non-Hispanic Other Race	0.05	0.06	0.05	0.05	0.05
<b>Parent Characteristics (If Parent Present)</b>					
Mom's Age (Years)	36.0	30.1	33.8	37.6	41.4
Dad's Age (Years)	38.6	32.9	36.7	40.3	44.0
Mom Has Less Than 12 Years of Education	0.14	0.14	0.14	0.13	0.13
Mom Has 12 Years of Education	0.31	0.28	0.30	0.31	0.33
Dad Has Less Than 12 Years of Education	0.13	0.13	0.13	0.13	0.13
Dad Has 12 Years of Education	0.31	0.29	0.30	0.31	0.32
Mom Unemployed	0.03	0.03	0.03	0.03	0.02
Dad Unemployed	0.02	0.02	0.02	0.02	0.02
<i>Observations</i>	<i>208,553</i>	<i>43,699</i>	<i>59,598</i>	<i>48,475</i>	<i>56,781</i>

\* For 1996-2005, the number of observations for this variable is 111,278 for all ages and 25,451, 29,722, 23,973 and 32,132 for ages 0-3, 4-8, 9-12 and 13-17 respectively. The survey question about doctor visits was asked only of some (sample) children beginning in 1997.

Appendix Table 4: The Effect of Income on Child Health  
Consistent Income Imputation Method

	Ages 0-3	Ages 4-8	Ages 9-12	Ages 13-17
Log Family Income (\$1986)	-0.044 [0.004]***	-0.051 [0.004]***	-0.066 [0.004]***	-0.072 [0.004]***
* 1991-1995 Time Period	-0.003 [0.005]	-0.005 [0.005]	0.002 [0.005]	0.003 [0.006]
* 1996-2000 Time Period	-0.005 [0.006]	-0.01 [0.005]*	0.002 [0.005]	0.014 [0.006]**
* 2000-2005 Time Period	0.006 [0.006]	0.008 [0.005]	0.013 [0.006]**	0.015 [0.006]***
Log of Family Size	0.069 [0.008]***	0.01 [0.007]	-0.001 [0.007]	-0.001 [0.007]
No Mom Present	0.045 [0.021]**	0.033 [0.018]*	0.03 [0.018]	0.048 [0.019]**
No Dad Present	0.059 [0.014]***	0.05 [0.014]***	0.028 [0.015]*	0.04 [0.016]**
Male	0.018 [0.003]***	0.013 [0.003]***	0.008 [0.003]**	-0.03 [0.003]***
Non-Hispanic Black	0.041 [0.007]***	0.057 [0.006]***	0.08 [0.006]***	0.085 [0.006]***
Hispanic	0.056 [0.006]***	0.058 [0.006]***	0.058 [0.006]***	0.044 [0.006]***
Non-Hispanic Other Race	0.058 [0.009]***	0.079 [0.008]***	0.063 [0.010]***	0.049 [0.009]***
Mom's Age	0 [0.000]	0 [0.000]	0 [0.000]	0 [0.000]
Mom Has Less Than 12 Years of Education	-0.001 [0.000]*	0 [0.000]	-0.001 [0.000]*	-0.001 [0.000]*
Mom Has 12 Years of Education	0.077 [0.007]***	0.105 [0.007]***	0.112 [0.007]***	0.101 [0.006]***
Mom Unemployed	0.043 [0.005]***	0.061 [0.004]***	0.059 [0.005]***	0.062 [0.004]***
Dad's Age	0.099 [0.007]***	0.105 [0.007]***	0.098 [0.007]***	0.117 [0.007]***
Dad Has Less Than 12 Years of Education	0.051 [0.005]***	0.059 [0.005]***	0.056 [0.005]***	0.066 [0.005]***
Dad Has 12 Years of Education	-0.01 [0.010]	0.017 [0.010]*	-0.014 [0.010]	0.007 [0.011]
Dad Unemployed	0.009 [0.013]	0 [0.011]	-0.015 [0.013]	0.011 [0.013]
<i>Observations</i>	100,905	136,285	108,804	128,170
R-squared	0.051	0.055	0.058	0.061

The table reports coefficients and standard errors (in brackets) from linear probability models estimating the probability that a child is in less than excellent health. Although not reported, controls include year, age and state effects. \* significant at 10%, \*\* significant at 5%, \*\*\*significant at 1%.



Appendix Table 5: The Effect of Income on Children's Access to Health Care  
 Linear Probability (Dependent Variable: No Doctor Visit in the Past Year)  
 Consistent Income Imputation Method

	Ages 0-3	Ages 4-8	Ages 9-12	Ages 13-17
Log Family Income (\$1986 Dollars)	-0.015 [0.003]***	-0.035 [0.003]***	-0.042 [0.004]***	-0.035 [0.004]***
* 1991-1995 Time Period	0.007 [0.003]**	0.015 [0.004]***	0.013 [0.005]***	-0.001 [0.005]
* 1996-2000 Time Period	0.007 [0.004]**	0.016 [0.005]***	0.012 [0.006]*	0.002 [0.006]
* 2000-2005 Time Period	0.007 [0.003]**	0.023 [0.005]***	0.021 [0.006]***	0.011 [0.006]**
Log of Family Size	0.037 [0.005]***	0.092 [0.006]***	0.094 [0.008]***	0.062 [0.007]***
No Mom Present	0.04 [0.014]***	0.083 [0.015]***	0.084 [0.020]***	0.1 [0.018]***
No Dad Present	-0.002 [0.009]	-0.018 [0.011]	-0.044 [0.016]***	-0.011 [0.015]
Male	-0.003 [0.002]	0.003 [0.002]	0.002 [0.004]	0.017 [0.003]***
Non-Hispanic Black	0.014 [0.004]***	0.026 [0.005]***	0.031 [0.006]***	0.038 [0.006]***
Hispanic	0.014 [0.004]***	0.024 [0.005]***	0.045 [0.006]***	0.071 [0.005]***
Non-Hispanic Other Race	0.018 [0.006]***	0.035 [0.008]***	0.051 [0.011]***	0.09 [0.009]***
Mom's Age	0 [0.000]	0 [0.000]*	0 [0.000]	0 [0.000]
Mom Has Less Than 12 Years of Education	0 [0.000]	-0.001 [0.000]*	-0.001 [0.000]**	0 [0.000]
Mom Has 12 Years of Education	0.029 [0.004]***	0.047 [0.006]***	0.057 [0.007]***	0.08 [0.006]***
Mom Unemployed	0.014 [0.003]***	0.023 [0.004]***	0.028 [0.004]***	0.038 [0.004]***
Dad's Age	0.036 [0.006]***	0.054 [0.006]***	0.065 [0.007]***	0.07 [0.006]***
Dad Has Less Than 12 Years of Education	0.013 [0.003]***	0.024 [0.004]***	0.037 [0.005]***	0.033 [0.004]***
Dad Has 12 Years of Education	0.013 [0.006]**	-0.012 [0.008]	-0.013 [0.010]	-0.01 [0.009]
Dad Unemployed	-0.01 [0.006]*	-0.009 [0.010]	-0.015 [0.014]	0.016 [0.012]
<i>Observations</i>	82,657	106,409	84,302	103,521
R-squared	0.026	0.045	0.048	0.055

The table reports coefficients and standard errors (in brackets) from linear probability models estimating the probability that a child has had no doctor visit in the past year. Although not reported, controls include year, age and state effects. \* significant at 10%, \*\* significant at 5%, \*\*\*significant at 1%.

Appendix Table 6: The Effect of Medicaid/SCHIP Eligibility on Child Health and Access to Health Care  
 Linear Probability Models - Consistent Income Imputation Method

Dependent Variable:	Less Than Excellent Health			No Doctor Visit in the Past Year		
	OLS	OLS	TOLS	OLS	OLS	TOLS
Medicaid/SCHIP Eligible		0.021 [0.004]***	-0.006 [0.020]		-0.026 [0.003]***	-0.067 [0.014]***
Log Family Income (\$1986)	-0.046 [0.002]***	-0.039 [0.003]***	-0.048 [0.007]***	-0.011 [0.002]***	-0.019 [0.002]***	-0.033 [0.005]***
Log Family Income (\$1986) * Ages 9-17	-0.022 [0.003]***	-0.023 [0.003]***	-0.021 [0.003]***	-0.026 [0.002]***	-0.024 [0.002]***	-0.021 [0.002]***
Log Family Income (\$1986) * 1996-2005	0.002 [0.003]	0.003 [0.003]	0.002 [0.003]	0.007 [0.002]***	0.006 [0.002]***	0.005 [0.002]**
Ages 9-17 * 1996-2005	-0.044 [0.040]	-0.058 [0.040]	-0.04 [0.042]	-0.067 [0.035]*	-0.05 [0.035]	-0.023 [0.036]
Log Family Income (\$1986) * Ages 9-17 * 1996-2005	0.008 [0.004]**	0.009 [0.004]**	0.008 [0.004]*	0.001 [0.003]	-0.001 [0.003]	-0.003 [0.004]
First Stage F-statistic			4,602			4,202
P-value for first stage F-statistic			0.000			0.000
R-squared	0.059	0.059	0.059	0.081	0.081	0.08

The table reports coefficients and standard errors (in brackets) from linear probability models estimated using ordinary least squares (OLS) and two staged least squares (TOLS). Other than those indicated in the table, control variables include year effects, age effect, state effects, state effects interacted with age group, and (log of) family size, whether mother and father present, race (white, black), mother's age, father's age, mother's education (less than 12 or 12 years), father's education (less than 12 or 12 years), and whether the mother or father is unemployed. The sample size is 474,164 for less than excellent health and 376,889 for no doctor visit in the past year. \* significant at 10%, \*\* significant at 5%, \*\*\*significant at 1%.

Appendix Table 7: The Effect of Medicaid/SCHIP Eligibility and Lagged Medicaid/SCHIP Eligibility on Health and Access to Health Care of Children Aged 9-17  
 Linear Probability Models - Consistent Income Imputation Method

*Reduced Form Models*

	Age 0	Age 1	Age 2	Age 3	Age 4	Age 5	Age 6	Age 7	Age 8
<b>Dependent Variable: Less Than Excellent Health</b>									
Lagged Simulated Eligible	-0.022 [0.021]	-0.033 [0.023]	-0.033 [0.023]	-0.056 [0.024]**	-0.039 [0.023]*	-0.034 [0.021]	-0.029 [0.021]	-0.024 [0.019]	-0.014 [0.020]
Log Family Income (\$1986)	-0.066 [0.003]***	-0.066 [0.003]***	-0.066 [0.003]***	-0.066 [0.003]***	-0.066 [0.003]***	-0.066 [0.003]***	-0.066 [0.003]***	-0.066 [0.003]***	-0.066 [0.003]***
Log Family Income (\$1986) * 1996-2005	0.01 [0.003]***	0.01 [0.003]***	0.01 [0.003]***	0.01 [0.003]***	0.01 [0.003]***	0.01 [0.003]***	0.01 [0.003]***	0.01 [0.003]***	0.01 [0.003]***
R Squared	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
<b>Dependent Variable: No Doctor Visit in the Past Year</b>									
Lagged Simulated Eligible	-0.064 [0.019]***	-0.084 [0.022]***	-0.088 [0.023]***	-0.07 [0.022]***	-0.058 [0.023]**	-0.049 [0.021]**	-0.054 [0.020]***	-0.039 [0.019]**	-0.051 [0.019]***
Log Family Income (\$1986)	-0.031 [0.002]***	-0.031 [0.002]***	-0.031 [0.002]***	-0.031 [0.002]***	-0.031 [0.002]***	-0.031 [0.002]***	-0.031 [0.002]***	-0.031 [0.002]***	-0.031 [0.002]***
Log Family Income (\$1986) * 1996-2005	0.008 [0.003]**	0.008 [0.003]**	0.008 [0.003]**	0.008 [0.003]**	0.008 [0.003]**	0.008 [0.003]**	0.008 [0.003]**	0.008 [0.003]**	0.008 [0.003]**
R Squared	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064

The table reports coefficients and standard errors (in brackets) from linear probability models. Other than those indicated in the table, control variables include state, age and year effects, and (log of) family size, whether mother and father present, race (white, black), mother's age, father's age, mother's education (less than 12 or 12 years), father's education (less than 12 or 12 years), and whether the mother or father is unemployed. The sample size is 236,974 for less than excellent health and 187,823 for no doctor visit in the past year. \* significant at 10%, \*\* significant at 5%, \*\*\*significant at 1%.

Appendix Table 8: Mean Characteristics of the NHIS Sample by Child Age Group and Time Period  
Estimates for Alternative Sample

1986-1995	All	Ages 0-3	Ages 4-8	Ages 9-12	Ages 13-17
Parent-Assessed Health (Excellent = 1 to Poor =5)	1.71	1.69	1.70	1.69	1.74
Parent-Assessed Health for Children Under Poverty	2.04	1.99	2.01	2.05	2.15
Less Than Excellent Health	0.47	0.46	0.47	0.47	0.49
Less Than Excellent Health for Children Under Poverty	0.62	0.59	0.62	0.63	0.66
No Doctor Visit in the Past Year	0.20	0.07	0.17	0.28	0.27
No Doctor Visit in the Past Year for Children Under Poverty	0.25	0.10	0.23	0.34	0.35
Family Income (1986 Dollars)	29,112	26,995	28,558	29,749	30,990
Family Size	4.2	4.3	4.5	4.6	4.4
No Mom Present	0.07	0.07	0.06	0.06	0.08
No Dad Present	0.26	0.25	0.25	0.25	0.27
Male	0.51	0.51	0.51	0.51	0.51
Non-Hispanic Black	0.15	0.15	0.15	0.15	0.15
Hispanic	0.13	0.14	0.13	0.12	0.11
Non-Hispanic Other Race	0.04	0.05	0.04	0.04	0.04
<i>Observations</i>	<i>291,664</i>	<i>65,595</i>	<i>83,741</i>	<i>64,708</i>	<i>77,620</i>
<hr/>					
1996-2005					
Parent-Assessed Health (Excellent = 1 to Poor =5)	0.16	1.57	1.62	1.65	1.69
Parent-Assessed Health for Children Under Poverty	1.95	1.85	1.93	2.00	2.05
Less Than Excellent Health	0.45	0.41	0.44	0.45	0.48
Less Than Excellent Health for Children Under Poverty	0.59	0.55	0.58	0.62	0.64
No Doctor Visit in the Past Year*	0.13	0.06	0.12	0.17	0.17
No Doctor Visit in the Past Year for Children Under Poverty	0.18	0.08	0.15	0.24	0.25
Family Income (1986 Dollars)	37,411	35,194	36,718	38,235	39,195
Family Size	4.4	4.3	4.5	4.5	4.3
No Mom Present	0.07	0.05	0.06	0.07	0.09
No Dad Present	0.26	0.24	0.25	0.26	0.28
Male	0.51	0.51	0.51	0.51	0.51
Non-Hispanic Black	0.15	0.14	0.15	0.15	0.15
Hispanic	0.16	0.19	0.17	0.15	0.14
Non-Hispanic Other Race	0.06	0.06	0.06	0.05	0.05
<i>Observations</i>	<i>231,121</i>	<i>50,170</i>	<i>65,618</i>	<i>52,738</i>	<i>62,595</i>

\* For 1996-2005, the number of observations for this variable is 124,465 for all ages and 29,289, 33,185, 26,390 and 35,601 for ages 0-3, 4-8, 9-12 and 13-17 respectively. The survey question about doctor visits was asked only of some (sample) children beginning in 1997.

Appendix Table 9: The Effect of Income on Child Health  
 Linear Probability (Dependent Variable: Less Than Excellent Health)  
 Estimates for Alternative Sample

	Ages 0-3	Ages 4-8	Ages 9-12	Ages 13-17
Log Family Income (\$1986)	-0.07 [0.004]***	-0.083 [0.004]***	-0.097 [0.004]***	-0.104 [0.004]***
* 1991-1995 Time Period	-0.001 [0.005]	-0.001 [0.005]	0.002 [0.005]	0.005 [0.006]
* 1996-2000 Time Period	-0.002 [0.006]	-0.004 [0.005]	0.005 [0.005]	0.013 [0.006]**
* 2000-2005 Time Period	0.008 [0.005]	0.011 [0.005]**	0.018 [0.005]***	0.019 [0.005]***
Log of Family Size	0.102 [0.006]***	0.052 [0.006]***	0.037 [0.006]***	0.029 [0.006]***
No Mom Present	0.029 [0.008]***	0.031 [0.007]***	0.026 [0.007]***	0.025 [0.006]***
No Dad Present	0.045 [0.005]***	0.028 [0.004]***	0.012 [0.005]**	0.013 [0.004]***
Male	0.017 [0.003]***	0.012 [0.003]***	0.009 [0.003]***	-0.031 [0.003]***
Non-Hispanic Black	0.043 [0.006]***	0.058 [0.005]***	0.083 [0.006]***	0.083 [0.006]***
Hispanic	0.086 [0.005]***	0.093 [0.005]***	0.092 [0.005]***	0.076 [0.006]***
Non-Hispanic Other Race	0.057 [0.009]***	0.075 [0.008]***	0.059 [0.010]***	0.037 [0.009]***
<i>Observations</i>	<i>115,765</i>	<i>149,359</i>	<i>117,446</i>	<i>140,215</i>
R-squared	0.046	0.045	0.048	0.049

The table reports coefficients and standard errors (in brackets) from linear probability models estimating the probability that a child is in less than excellent health. Although not reported, controls include year, age and state effects. \* significant at 10%, \*\* significant at 5%, \*\*\*significant at 1%.

Appendix Table 10: The Effect of Income on Children's Access to Health Care  
 Linear Probability (Dependent Variable: No Doctor Visit in the Past Year)  
 Estimates for Alternative Sample

	Ages 0-3	Ages 4-8	Ages 9-12	Ages 13-17
Log Family Income (\$1986 Dollars)	-0.023 [0.002]***	-0.05 [0.003]***	-0.06 [0.004]***	-0.054 [0.004]***
* 1991-1995 Time Period	0.006 [0.003]**	0.014 [0.003]***	0.012 [0.005]**	-0.002 [0.004]
* 1996-2000 Time Period	0.008 [0.003]**	0.017 [0.004]***	0.008 [0.006]	0.003 [0.005]
* 2000-2005 Time Period	0.009 [0.003]***	0.026 [0.004]***	0.022 [0.006]***	0.007 [0.005]
Log of Family Size	0.049 [0.004]***	0.098 [0.005]***	0.102 [0.007]***	0.078 [0.006]***
No Mom Present	0.025 [0.005]***	0.03 [0.006]***	0.04 [0.008]***	0.058 [0.006]***
No Dad Present	-0.01 [0.003]***	-0.027 [0.004]***	-0.044 [0.005]***	-0.037 [0.004]***
Male	-0.004 [0.002]*	0.002 [0.002]	0.002 [0.004]	0.018 [0.003]***
Non-Hispanic Black	0.012 [0.003]***	0.023 [0.005]***	0.029 [0.006]***	0.042 [0.005]***
Hispanic	0.028 [0.003]***	0.043 [0.004]***	0.067 [0.006]***	0.103 [0.005]***
Non-Hispanic Other Race	0.019 [0.006]***	0.035 [0.007]***	0.043 [0.011]***	0.087 [0.009]***
<i>Observations</i>	<i>94,514</i>	<i>116,579</i>	<i>90,861</i>	<i>112,916</i>
R-squared	0.023	0.04	0.041	0.047

The table reports coefficients and standard errors (in brackets) from linear probability models estimating the probability that a child has had no doctor visit in the past year. Although not reported, controls include year, age and state effects. \* significant at 10%, \*\* significant at 5%, \*\*\*significant at 1%.

Appendix Table 11: The Effect of Medicaid/SCHIP Eligibility on Child Health and Access to Health Care  
 Linear Probability Models-Estimates for Alternative Sample

Dependent Variable:	Less Than Excellent Health			No Doctor Visit in the Past Year		
	OLS	OLS	TOLS	OLS	OLS	TOLS
Medicaid/SCHIP Eligible		0.027 [0.004]***	-0.013 [0.019]		-0.022 [0.003]***	-0.07 [0.013]***
Log Family Income (\$1986)	-0.075 [0.002]***	-0.066 [0.003]***	-0.079 [0.007]***	-0.027 [0.002]***	-0.034 [0.002]***	-0.051 [0.005]***
Log Family Income (\$1986) * Ages 9-17	-0.021 [0.003]***	-0.023 [0.003]***	-0.021 [0.003]***	-0.024 [0.002]***	-0.023 [0.002]***	-0.02 [0.002]***
Log Family Income (\$1986) * 1996-2005	0.004 [0.003]	0.004 [0.003]	0.004 [0.003]	0.008 [0.002]***	0.008 [0.002]***	0.007 [0.002]***
Ages 9-17 * 1996-2005	-0.056 [0.038]	-0.073 [0.038]*	-0.047 [0.040]	-0.04 [0.032]	-0.025 [0.033]	0.008 [0.034]
Log Family Income (\$1986) * Ages 9-17 * 1996-2005	0.009 [0.004]**	0.011 [0.004]***	0.008 [0.004]**	-0.002 [0.003]	-0.003 [0.003]	-0.006 [0.003]*
First Stage F-statistic			4,669			4,251
P-value for first stage F-statistic			0.000			0.000
R-squared	0.049	0.05	0.049	0.076	0.076	0.074

The table reports coefficients and standard errors (in brackets) from linear probability models estimated using ordinary least squares (OLS) and two staged least squares (TOLS). Other than those indicated in the table, control variables include year effects, age effect, state effects, state effects interacted with age group, and (log of) family size, whether mother and father present, race (white, black), mother's age, father's age, mother's education (less than 12 or 12 years), father's education (less than 12 or 12 years), and whether the mother or father is unemployed. The sample size is 522,785 for less than excellent health and 414,870 for no doctor visit in the past year. \* significant at 10%, \*\* significant at 5%, \*\*\*significant at 1%.

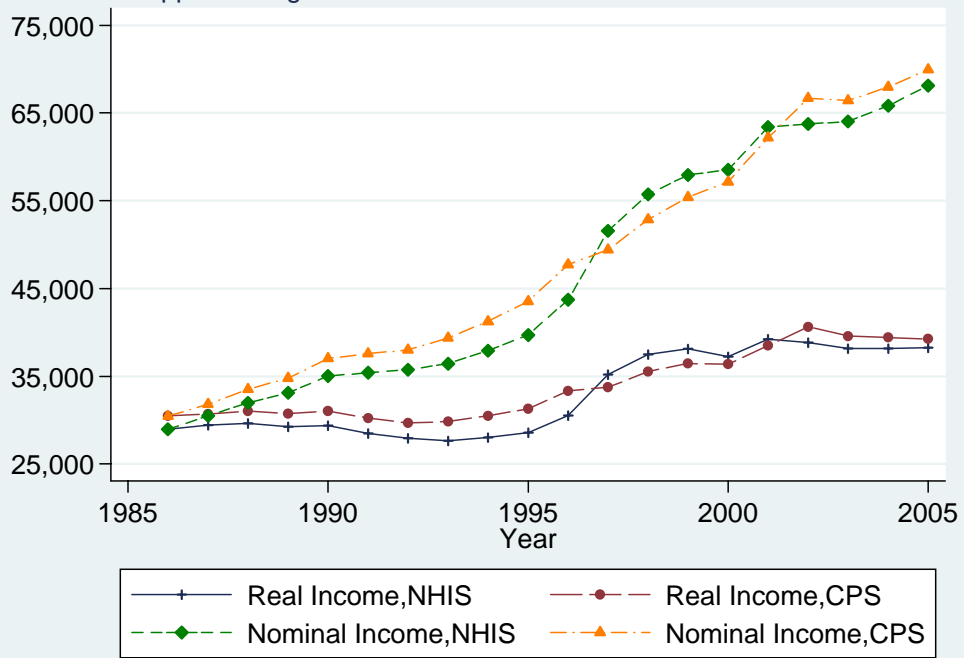
Appendix Table 12: The Effect of Medicaid/SCHIP Eligibility and Lagged Medicaid/SCHIP Eligibility on Health and Access to Health Care of Children Aged 9-17  
 Linear Probability Models-Estimates for Alternative Sample

<i>Reduced Form Models</i>									
	Age 0	Age 1	Age 2	Age 3	Age 4	Age 5	Age 6	Age 7	Age 8
<b>Dependent Variable: Less Than Excellent Health</b>									
Lagged Simulated Eligible	-0.009 [0.022]	-0.023 [0.022]	-0.041 [0.025]*	-0.048 [0.023]**	-0.039 [0.021]*	-0.037 [0.022]*	-0.028 [0.021]	-0.019 [0.019]	-0.011 [0.020]
Log Family Income (\$1986)	-0.097 [0.003]***	-0.097 [0.003]***	-0.097 [0.003]***	-0.097 [0.003]***	-0.097 [0.003]***	-0.097 [0.003]***	-0.097 [0.003]***	-0.097 [0.003]***	-0.097 [0.003]***
Log Family Income (\$1986) * 1996-2005	0.012 [0.003]***	0.012 [0.003]***	0.012 [0.003]***	0.012 [0.003]***	0.012 [0.003]***	0.012 [0.003]***	0.012 [0.003]***	0.012 [0.003]***	0.012 [0.003]***
R Squared	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051
<b>Dependent Variable: No Doctor Visit in the Past Year</b>									
Lagged Simulated Eligible	-0.074 [0.019]***	-0.067 [0.021]***	-0.09 [0.024]***	-0.064 [0.022]***	-0.057 [0.020]***	-0.062 [0.022]***	-0.072 [0.020]***	-0.045 [0.018]**	-0.068 [0.018]***
Log Family Income (\$1986)	-0.049 [0.002]***	-0.049 [0.002]***	-0.049 [0.002]***	-0.049 [0.002]***	-0.049 [0.002]***	-0.049 [0.002]***	-0.049 [0.002]***	-0.049 [0.002]***	-0.049 [0.002]***
Log Family Income (\$1986) * 1996-2005	0.007 [0.003]**	0.007 [0.003]**	0.007 [0.003]**	0.007 [0.003]**	0.007 [0.003]**	0.007 [0.003]**	0.007 [0.003]**	0.007 [0.003]**	0.007 [0.003]**
R Squared	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.056

The table reports coefficients and standard errors (in brackets) from linear probability models. Other than those indicated in the table, control variables include state, age and year effects, and (log of) family size, whether mother and father present, race (white, black), mother's age, father's age, mother's education (less than 12 or 12 years), father's education (less than 12 or 12 years), and whether the mother or father is unemployed. The sample size is 257,661 for less than excellent health and 203,777 for no doctor visit in the past year. \* significant at 10%, \*\* significant at 5%, \*\*\*significant at 1%.

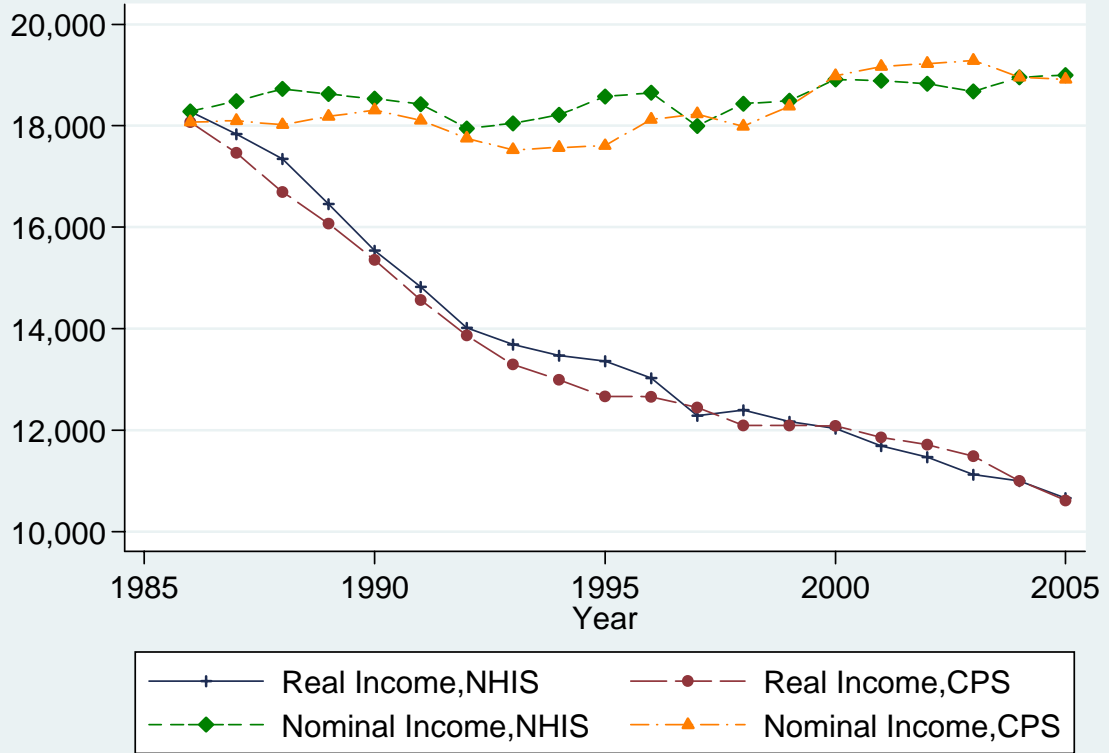


Appendix Figure 1A: Mean NHIS Income vs. Mean CPS Income

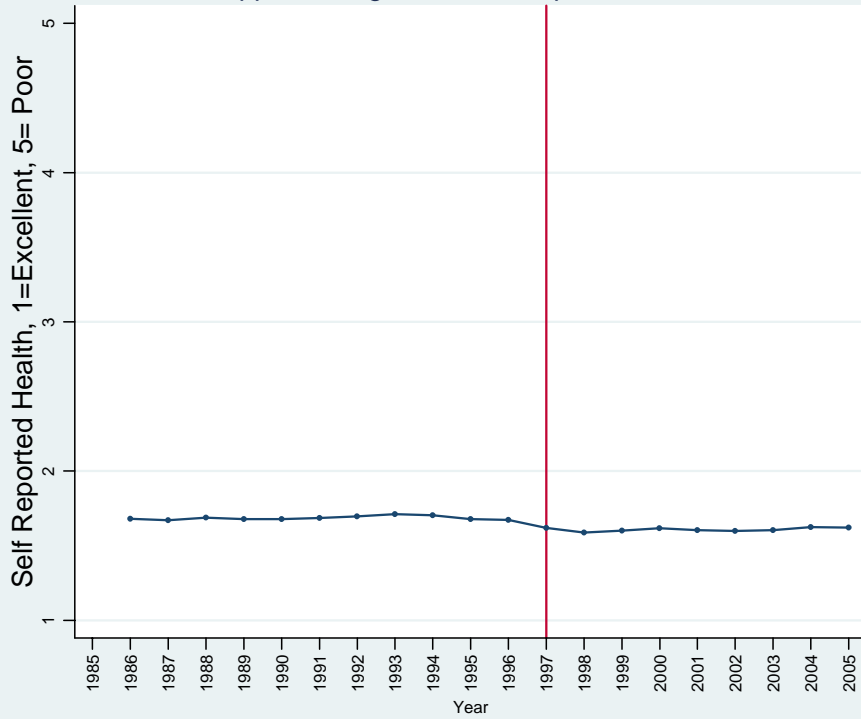


Universe: All Children age <18

Appendix Figure 1B: Mean NHIS Income vs. Mean CPS Income  
Restrict Sample to those with Nominal Annual Family Income < 35,000

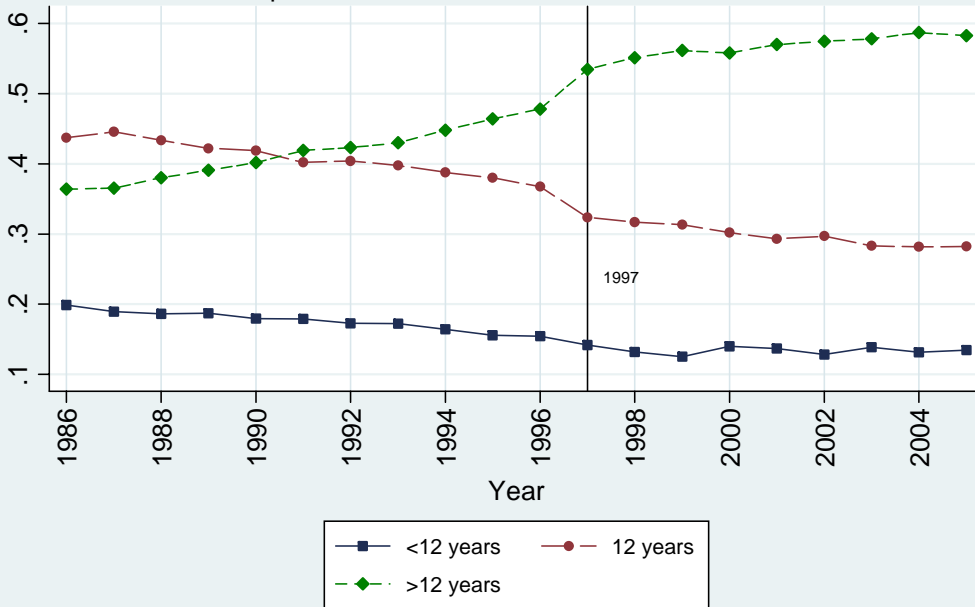


Appendix Figure 2: Self Reported Health



Calculated from the final NHIS sample used in this paper.

Appendix Figure 3: Mother's Education in the NHIS  
For Sample Children with Mother Present in the Household



Calculated from the final NHIS sample used in this paper.