# Health Insurance and Income Inequality

#### **Robert Kaestner and Darren Lubotsky**

Journal of Economic Perspectives
Volume 30, Number 2—Spring 2016—Pages 53–7

James J. Heckman



Econ 350, Winter 2021

## An Overview of Government Transfers and Tax Expenditures for Health Care

Table 1
Medicare and Medicaid Participation Rates by Decile of Adjusted
Family Income

| Decile of adjusted family income | Medicare | participation | n rate (%) | $Medicaid\ participation\ rate\ (\%)$ |      |      |  |
|----------------------------------|----------|---------------|------------|---------------------------------------|------|------|--|
|                                  | 1995     | 2004          | 2012       | 1995                                  | 2004 | 2012 |  |
| Bottom decile                    | 7.2      | 9.8           | 8.4        | 44.8                                  | 35.7 | 41.6 |  |
| 2                                | 23.3     | 23.8          | 21.6       | 22.7                                  | 23.4 | 31.6 |  |
| 3                                | 21.4     | 23.1          | 24.8       | 9.2                                   | 13.2 | 17.7 |  |
| 4                                | 18.5     | 18.4          | 22.0       | 4.6                                   | 7.6  | 11.0 |  |
| 5                                | 14.5     | 13.8          | 16.9       | 2.8                                   | 3.9  | 6.5  |  |
| 6                                | 10.7     | 10.1          | 13.7       | 1.5                                   | 2.6  | 3.8  |  |
| 7                                | 8.7      | 8.7           | 12.5       | 0.8                                   | 1.5  | 2.2  |  |
| 8                                | 7.3      | 6.9           | 10.5       | 0.6                                   | 1.0  | 1.5  |  |
| 9                                | 6.2      | 6.8           | 9.3        | 0.6                                   | 0.6  | 0.8  |  |
| Top decile                       | 6.6      | 6.5           | 9.3        | 0.5                                   | 0.4  | 0.8  |  |

*Source:* Data are from the 1996, 2005, and 2013 Annual Social and Economic Supplement to the Current Population Survey in which respondents report sources of health insurance coverage in the prior year.

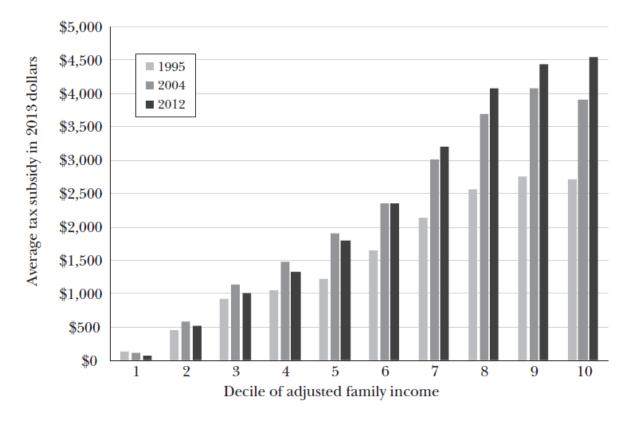
*Notes:* The table shows the fraction of families in each decile in which at least one member participates in Medicare or Medicaid. Adjusted family income is total family income divided by the square root of family size.

Table 2
Health Insurance Coverage Rates of the Nonelderly in 2012 and 2014 by Decile of Adjusted Family Income

|                    | Fraction uninsured |        | Fraction on<br>Medicaid |       |        | Fraction with private insurance |       |       |               |
|--------------------|--------------------|--------|-------------------------|-------|--------|---------------------------------|-------|-------|---------------|
| Decile of adjusted |                    | Δ2014- |                         |       | Δ2014- |                                 |       |       | $\Delta 2014$ |
| family income      | 2012               | 2014   | 2012                    | 2012  | 2014   | 2012                            | 2012  | 2014  | 2012          |
| Bottom decile      | 39.3%              | 31.1%  | -8.2                    | 43.1% | 47.6%  | 4.5                             | 22.7% | 26.5% | 3.8           |
| 2                  | 37.8               | 28.3   | -9.5                    | 34.4  | 38.9   | 4.5                             | 34.3  | 40.0  | 5.7           |
| 3                  | 30.9               | 23.3   | -7.6                    | 21.6  | 23.9   | 2.3                             | 54.8  | 60.4  | 5.6           |
| 4                  | 22.5               | 16.5   | -6.0                    | 15.3  | 17.1   | 1.8                             | 69.2  | 73.6  | 4.4           |
| 5                  | 15.5               | 11.8   | -3.7                    | 12.3  | 13.1   | 0.8                             | 79.1  | 81.8  | 2.7           |
| 6                  | 11.1               | 8.4    | -2.7                    | 9.9   | 11.1   | 1.2                             | 85.3  | 87.0  | 1.7           |
| 7                  | 7.8                | 6.1    | -1.7                    | 8.7   | 8.9    | 0.2                             | 89.7  | 90.8  | 1.1           |
| 8                  | 5.6                | 4.3    | -1.3                    | 7.4   | 7.7    | 0.3                             | 92.6  | 93.4  | 0.8           |
| 9                  | 4.1                | 3.3    | -0.8                    | 6.5   | 6.7    | 0.2                             | 94.8  | 95.1  | 0.3           |
| Top decile         | 2.8                | 2.3    | -0.5                    | 5.1   | 5.2    | 0.1                             | 96.4  | 96.6  | 0.2           |

*Source*: Data are from the 2012 and 2014 one percent samples of the American Community Survey in which respondents report their current sources of insurance coverage. The sample is adults ages 22 to 64. *Notes*: Medicaid category includes all public insurance programs. Adjusted family income is total family income divided by the square root of family size. Row totals do not add to 100 percent because people report more than one type of health insurance coverage. Figures in Tables 1 and 2 differ because of differences in survey design and sample.

Figure 1
Average Tax Subsidy for Employer-Provided Health Insurance by Decile of Adjusted Family Income



*Source*: Authors' calculations from the 1996, 2005, and 2013 Annual Social and Economic Supplement to the Current Population Survey.

*Notes:* Adjusted family income is total family income divided by the square root of family size. The calculation of the subsidy is described in the text. Calculations include zeros for families not covered by employer-provided insurance. Insurance coverage, family income, and the tax subsidy refer to the year prior to each survey.

## Accounting for Taxes and Transfers in Measured Inequality

Table 3 Measures of Points in the Distribution of Family Income and Income Inequality in  $1996,\,2005,\,2012$ 

(in 2013 dollars)

|  | 10th<br>percentile | 50th<br>pecentile | 90th<br>percentile | 90/10 | 50/10 | 90/50 |
|--|--------------------|-------------------|--------------------|-------|-------|-------|
| Panel A: 1995  |                    |                   |                    |       |       |       |
| 1. Pre-tax family income   | \$8,369            | \$32,654          | \$80,976           | 9.7   | 3.9   | 2.5   |
| 2. After-tax family income   | \$8,219            | \$25,364          | \$54,492           | 6.6   | 3.1   | 2.1   |
| 3. After-tax income plus imputed value of Medicare and Medicaid                | \$11,078           | \$27,179          | \$55,894           | 5.0   | 2.5   | 2.1   |
| After-tax family income plus employer-prohealth insurance (EPHI) premiums      | vided              |                   |                    |       |       |       |
| 4. where EPHI is not taxed   | \$8,472            | \$27,545          | \$57,807           | 6.8   | 3.3   | 2.1   |
| 5. where EPHI is taxed   | \$8,399            | \$26,490          | \$55,904           | 6.7   | 3.2   | 2.1   |
| After-tax family income plus EPHI premiu and imputed value of Medicaid and Med |                    |                   |                    |       |       |       |
| 6. where EPHI is not taxed   | \$11,637           | \$29,354          | \$59,121           | 5.1   | 2.5   | 2.0   |
| 7. where EPHI is taxed   | \$11,341           | \$28,337          | \$57,162           | 5.0   | 2.5   | 2.0   |

Table 3 Measures of Points in the Distribution of Family Income and Income Inequality in 1996, 2005, and 2012  $\,$ 

(in 2013 dollars)

| 10th<br>percentile | 50th<br>pecentile   | 90th<br>percentile  | 90/10  | 50/10   | 90/50   |
|--------------------|---|---|--|---|---|
| T                  | T   | P   |  |   | ,   |
|                    |   |   |  |   |   |
| \$8,829            | \$35,222  | \$90,726  | 10.3   | 4.0   | 2.6   |
| \$8,879            | \$28,297  | \$63,339  | 7.1  | 3.2   | 2.2   |
| \$12,082           | \$30,682  | \$65,092  | 5.4  | 2.5   | 2.1   |
| vided              |   |   |  |   |   |
| \$9,366            | \$31,748  | \$68,262  | 7.3  | 3.4   | 2.2   |
| \$9,293            | \$30,127  | \$65,625  | 7.1  | 3.2   | 2.2   |
| ms<br>licare       |   |   |  |   |   |
| \$13,071           | \$33,879  | \$69,709  | 5.3  | 2.6   | 2.1   |
| \$12,814           | \$32,332  | \$67,234  | 5.2  | 2.5   | 2.1   |
|                    | \$8,829<br>\$8,879<br>\$12,082<br>vided<br>\$9,366<br>\$9,293<br>ms<br>licare<br>\$13,071 | \$8,829 \$35,222<br>\$8,879 \$28,297<br>\$12,082 \$30,682<br>vided<br>\$9,366 \$31,748<br>\$9,293 \$30,127<br>ms<br>licare<br>\$13,071 \$33,879 | \$8,829 \$35,222 \$90,726 \$8,879 \$28,297 \$63,339 \$12,082 \$30,682 \$65,092 vided  \$9,366 \$31,748 \$68,262 \$9,293 \$30,127 \$65,625 ms licare \$13,071 \$33,879 \$69,709 | \$8,829 \$35,222 \$90,726 10.3 \$8,879 \$28,297 \$63,339 7.1 \$12,082 \$30,682 \$65,092 5.4 wided  \$9,366 \$31,748 \$68,262 7.3 \$9,293 \$30,127 \$65,625 7.1 ms licare \$13,071 \$33,879 \$69,709 5.3 | \$8,829 \$35,222 \$90,726 10.3 4.0 \$8,879 \$28,297 \$63,339 7.1 3.2 \$12,082 \$30,682 \$65,092 5.4 2.5 wided  \$9,366 \$31,748 \$68,262 7.3 3.4 \$9,293 \$30,127 \$65,625 7.1 3.2 ms licare \$13,071 \$33,879 \$69,709 5.3 2.6 |

Table 3 Measures of Points in the Distribution of Family Income and Income Inequality in 1996, 2005, and 2012  $\,$ 

(in 2013 dollars)

|  | 10th<br>percentile | 50th<br>pecentile | 90th<br>percentile | 90/10 | 50/10 | 90/50 |
|--|--------------------|-------------------|--------------------|-------|-------|-------|
| Panel C: 2012  |                    |                   |                    |       |       |       |
| 1. Pre-tax family income   | \$7,610            | \$33,122          | \$89,401           | 11.7  | 4.4   | 2.7   |
| 2. After-tax family income   | \$8,100            | \$27,549          | \$64,189           | 7.9   | 3.4   | 2.3   |
| 3. After-tax income plus imputed value of Medicare and Medicaid                    | \$11,941           | \$30,973          | \$66,911           | 5.6   | 2.6   | 2.2   |
| After-tax family income plus employer-probability health insurance (EPHI) premiums | rovided            |                   |                    |       |       |       |
| 4. where EPHI is not taxed   | \$8,502            | \$31,169          | \$70,101           | 8.2   | 3.7   | 2.2   |
| 5. where EPHI is taxed   | \$8,460            | \$29,560          | \$66,919           | 7.9   | 3.5   | 2.3   |
| After-tax family income plus EPHI premand imputed value of Medicaid and Me         |                    |                   |                    |       |       |       |
| 6. where EPHI is not taxed   | \$12,624           | \$34,478          | \$72,307           | 5.7   | 2.7   | 2.1   |
| 7. where EPHI is taxed   | \$12,478           | \$32,849          | \$69,354           | 5.6   | 2.6   | 2.1   |

#### **Conceptual and Empirical Issues**

Table 4
Fungible and Imputed Values of Medicare and Medicaid, by Decile of Family Income, 2012

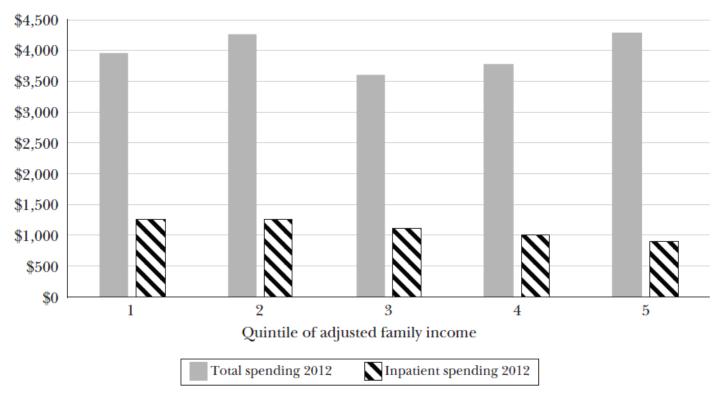
| Decile of adjusted family income | Med            | icare         | Medicaid       |               |  |  |
|----------------------------------|----------------|---------------|----------------|---------------|--|--|
|                                  | Fungible value | Imputed value | Fungible value | Imputed value |  |  |
| Bottom decile                    | <b>\$</b> 25   | \$2,054       | \$70           | \$3,560       |  |  |
| 2                                | \$624          | \$4,846       | \$785          | \$3,049       |  |  |
| 3                                | \$2,750        | \$5,569       | \$1,099        | \$1,638       |  |  |
| 4                                | \$4,191        | \$5,019       | \$893          | \$1,026       |  |  |
| 5                                | \$3,713        | \$4,010       | \$633          | \$683         |  |  |
| 6                                | \$3,150        | \$3,355       | \$358          | \$424         |  |  |
| 7                                | \$2,896        | \$3,083       | \$217          | \$269         |  |  |
| 8                                | \$2,551        | \$2,705       | \$157          | \$195         |  |  |
| 9                                | \$2,212        | \$2,363       | \$81           | \$107         |  |  |
| Top decile                       | \$2,174        | \$2,335       | \$71           | \$107         |  |  |

*Source*: Authors' calculations from the 2013 Annual Social and Economic Supplement of the Current Population Survey.

*Notes*: Adjusted family income is total family income divided by the square root of family size. Average values include zeros for nonparticipants and are expressed in 2012 dollars. The US Census Bureau determines fungible values. For our imputed values of Medicare or Medicaid, we assign to each recipient average Medicare expenditures by year and state and average Medicaid expenditures by age, year, and state. See footnote 11 for further details.

### Including the Value of Health

 ${\it Figure~2} \\ {\it Total~and~Inpatient~Spending~on~Medical~Care~in~2012~by~Family~Income}$ 



*Source:* Authors' calculations from the 2012 Medical Expenditure Panel Survey. *Notes:* Adjusted family income is total family income divided by the square root of family size. Calculations include zeros for families with no medical care spending.