



# The elusive wage-benefit trade-off: The case of employer-provided health insurance<sup>☆</sup>



Jed DeVaro<sup>a,b,\*</sup>, Nan L. Maxwell<sup>c</sup>

<sup>a</sup> Department of Management, College of Business and Economics, California State University, East Bay, Hayward, CA 94542, United States

<sup>b</sup> Department of Economics, College of Business and Economics, California State University, East Bay, Hayward, CA 94542, United States

<sup>c</sup> Mathematica Policy Research, 505 14th Street, Suite 800, Oakland, CA 94612, United States

## ARTICLE INFO

### Article history:

Received 21 December 2013

Received in revised form 2 May 2014

Accepted 16 July 2014

Available online 24 July 2014

### JEL classification:

J33

M52

### Keywords:

Employer-provided health insurance

Wage-benefit trade-off

## ABSTRACT

This study shows that standard regressions estimated to measure a trade-off between wages and health insurance are misspecified by insufficiently accounting for establishment and firm size; an interactive, size-corrected specification is more likely to reveal a trade-off. Furthermore, because insurance decisions are typically made by firms, and wages set by establishments, the insurance constraint on establishments in multi-establishment firms weakens the trade-off. We use model-generated data to show that both factors contribute to the failure in previous research to identify a trade-off, and data from a cross section of Northern Californian establishments to test for a trade-off in multi-establishment and single-establishment firms.

© 2014 Elsevier B.V. All rights reserved.

## 1. Introduction

Benefits represent nonpecuniary components of compensation; to the extent that their offerings are more generous, firms can reduce wages while holding worker utility constant, which implies a “wage-benefit trade-off” (Rosen, 1986). Empirical work has failed to consistently identify this trade-off; the estimated coefficient of the benefits variable in a wage regression is frequently positive and/or statistically insignificant. Brown (1980) showed that the inconclusive empirical evidence of a trade-off is not due only to unmeasured dimensions of worker quality. Even when a statistical analysis carefully accounts

for worker quality, the estimated coefficient is still often either positive or insignificant.<sup>1</sup>

For employer-provided health insurance, empirical researchers have sought a negative estimate of  $\beta_1$  in the following regression:

$$W_i = \beta_0 + \beta_1 H_i + \mathbf{X}_i \delta + \varepsilon_i \quad (1)$$

where  $W$  denotes wage compensation (or the log of wages),  $H$  is health insurance (either the availability of insurance or the employer's

<sup>☆</sup> We gratefully acknowledge helpful comments from two anonymous referees and from Jay Bhattacharya, Martin Farnham, Paul Oyer, and seminar participants at the 2012 WEAI conference and California State University, East Bay. For partial funding of this project, we thank the W.E. Upjohn Institute for Employment Research and the University of California's California Program on Access to Care. The views expressed and any remaining errors are those of the authors and should not be attributed to others.

\* Corresponding author.

E-mail addresses: [jed.devaro@csueastbay.edu](mailto:jed.devaro@csueastbay.edu) (J. DeVaro), [nmaxwell@mathematica-mpr.com](mailto:nmaxwell@mathematica-mpr.com) (N.L. Maxwell).

<sup>1</sup> Brown concluded by offering the following five potential explanations for this failure of the evidence to match the theory, though admitting that none of the explanations is entirely convincing: (1) “Labor markets are simply not as competitive as the theory of equalizing differences assumes.” (2) “The marginal worker's tastes may be different from those assumed in the a priori signing of the coefficients.” (3) “The job characteristics are not well measured.” (4) “Omitted variables – both individual characteristics that change over time and job characteristics – may be biasing the results.” (5) “Testing the hypothesis on a sample [of workers] in their early and mid-twenties is inappropriate.” Focusing on earnings inequality that includes nonwage compensation like workplace amenities, Hamermesh (1999) finds evidence that demand for workplace safety is highly income elastic, which has the potential to explain a positive wage-benefit relationship during periods of increasing earnings. In a related study of compensation inequality, Pierce (2001) found that employer costs due to paid leave, pensions, and health insurance fell for low-wage labor and rose for high-wage labor during 1981–1997, suggesting that income effects contributed to the relative decline of fringe benefits among low-wage workers.

**Table 1**  
Empirical literature on trade-off between wages and health insurance.

Study	Data	Dependent variable	Measure of health insurance	Control for firm or establishment size	Result of trade-off
<i>Establishment level</i>					
NONE					
<i>Firm level</i>					
Goldman et al. (2005)	Sample of single employees who signed up for health plan in a single firm (1989–1991) with a flexible benefits package such that employees choose allocation of wages and other benefits.	Wages, other benefits, health insurance expenditures.	Health insurance expenditures.	Single firm.	About 70% increase in health insurance expenditures were due to the increase in premiums and financed by wage reductions (i.e., 100% increase in price of health insurance equals a 50% increase in health insurance expenditures, 1% decrease in take home wages, and 28% decrease in other benefits).
MaCurdy and Rapoport (2003)	Robert Wood Johnson Foundation (RWJF) Employer Health Insurance Survey 1997 and Survey of Income and Program Participation (SIPP) 1996.	Wage change level.	Typically binary variables for access, enrollment, takeup in SIPP; monthly premiums, coinsurance, family coverage in RWJF survey.	Firm size of fewer than 25; 25–100, > 100; no establishment.	Argues that high school dropouts are willing to make trade-off, but the trade-off varies across regions; argues that the implicit trade-off is 83 cents in foregone wages, but the size depends on skills and region.
Royalty (2008)	RWJF Employer Health Insurance Survey 1993.	Willingness-to-pay.	Plan characteristics (HMO, PPO, annual deductible, co-pay, annual out-of-pocket dummy, out-of-plan coverage dummy, exclusion for health dummy, prenatal, maternity, prescription drug, mental health and alcohol treatment dummies).	Firm-level data.	Implicitly supports trade-off with insured workers valuing the health dollar significantly less than the wage dollar at margin. If dollars are defined as generosity, workers value the additional health dollar significantly more than wage dollar.
Woodbury (1983)	Employee Compensation Survey (66–74) and school districts in 1977 Census of Governments.	Share of compensation received as wages.	Two samples: one with fringe benefits defined as employer contributions to health and life insurance; the other also includes pension contributions.	Binary for fewer than 100, 100–499, and 499+; enrollment in the school district.	Substitutes with point estimates exceeding 1; retirement income plans are a far better substitute for current wages than health and life.
<i>Worker level</i>					
Baicker and Chandra (2006)	1996–2002 Current Population Surveys (CPS); Kaiser/Health Retirement Education & Trust (HRET) for health insurance premiums; National Practitioner Data Bank for malpractice payments.	Annual wage and salary income (and other labor market outcomes); employment.	Premiums, and binary on employment-based health insurance, any H, and employer offers; malpractice payments as instrument for health insurance premiums.	None (although firm size was used to help assign premiums in KFF/HRET).	Negative coefficient, but not significant in OLS, instrumental variable, or interactions.
Cutler and Madrian (1998)	CPS (1980–93) and SIPP (1984–92).	Hours worked (argues fixed cost of health insurance has substitution effect with employment – increasing hours and reducing total workers).	Binary variable for covered by employer-provided health insurance through own employer during previous year and average employer of spending for health insurance in each industry computed from 1972–92 U.S. Department of Commerce; interacted with time to see impact through rising cost years.	None.	Trade-off is with hours worked: rising health insurance costs during 1980s increased hours worked (those with health insurance) by 1.5–3%.
Eberts and Stone (1985)	Schoolteachers in New York Department of Education for school years 1972–73 and 1976–77.	Change in annual salary.	Change in the (log) cost of health benefits.	Only one district (i.e., one “firm”) but includes variables to capture its characteristics.	Supports compensating differentials with a dollar increase in health benefits and a 83 cent reduction in salary; BUT results are sensitive to inclusion of firm-specific information.
Gruber (1994)	CPS.	Individual wage in a particular job at each time.	0,1 if respondent lives in a state covered by mandated maternity benefits. Premiums are calculated for anonymous carrier calculated for a two-person firm in Maryland.	None.	Full shifting of mandated change in health benefits to wages (stronger trade-off for women than men).

Download English Version:

<https://daneshyari.com/en/article/5077964>

Download Persian Version:

<https://daneshyari.com/article/5077964>

[Daneshyari.com](https://daneshyari.com)