



The Association Between Getting Health Care and Personal Earnings in Your Household

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Fall 2017, Statistical Methods 615, CSU, Chico

Introduction

- It is widely accepted the knowledge that people enjoy the right to get health care is in direct proportion to personal earnings. That is, the more you earn, the better well-being in getting health care you will have, but for the lower class, they can also get the guarantee in getting health care.
- Most articles agree that personal earnings is a contributing factor besides any mortgage, but I want to know whether getting health care is derived from the support of personal earnings to follow suit and related to this connection as well. Because the literature has established that there is a definite relationship between getting health care and personal earnings in a person's daily life.
- However, there is not enough research about a direct acting factor of personal earnings. Studies have varied regarding what kinds of measures they have been using to assess health insurance. So, the real relationship between getting health care and personal earnings in the household is still being debated. Thus, the purpose of the current study is to investigate these gaps in the literature further.

Methods

- Data was collected from 2008 to 2009, via 90 minute in-home interviews, recorded in **Add Health Public Use File**.
- Respondents were selected to be a nationally representative sample; and responded to several questions addressing health, lifestyle, personal relationships and social demographic.
- Data was analyzed using IBM Statistical Package for the Social Science **[SPSS] version 24**.
- Results were considered statistically significant if the **p-value** obtained was less than **0.5**.

Table 1: Sample Characteristics

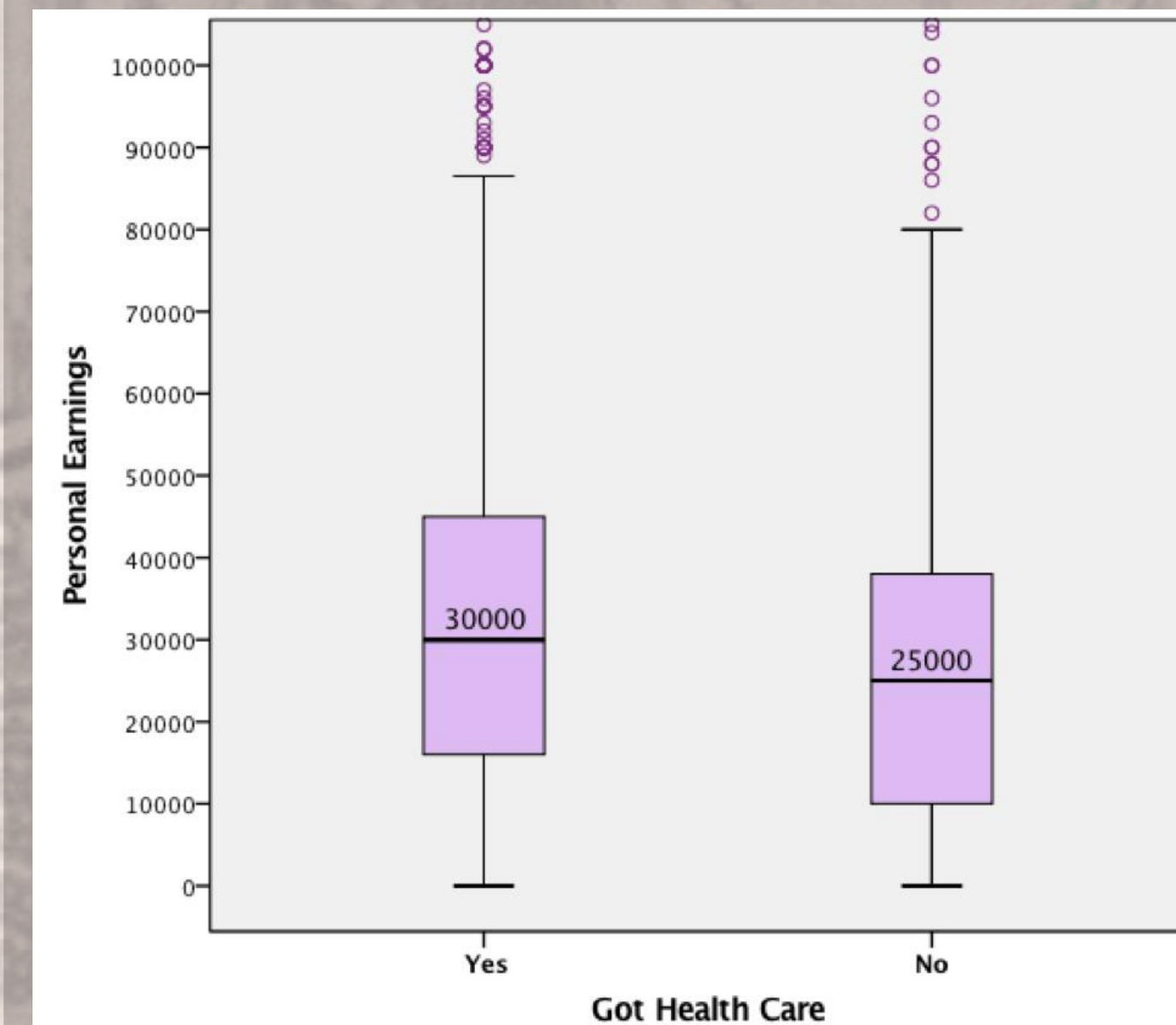
Participant Demographic n= 6504			
Categorical Variables	n	%	
Gender			
Male	3147	44.8	
Female	3356	51.6	
Age (25~34)			
25	7	0.1	
26	464	7.1	
27	724	11.1	
28	884	13.6	
29	914	14.1	
30	887	13.6	
31	875	13.5	
32	307	4.7	
33	45	0.7	
34	7	0.1	
Got Health Care			
Yes	3325	59.4	
No	1091	19.5	
Month Coverage of Health Insurance			
"Never"	3121	55.8	
1~3 Month	190	3.4	
4~6 Month	207	3.7	
7~9 Month	184	3.3	
10~12 Month	704	12.6	
Personal Earnings			
In Poverty	<\$10,210	856	15.3
Not In Poverty	≥\$10,210	3561	63.6
Continuous Variables			
Personal Earnings	Median	Mean	SD
Personal Earnings	\$30,000	\$34,655	40611
Age (25~34)	29	28.9	1.7

Hypotheses

- People who have higher personal earnings will get a better health care situation;
- As the personal earnings increase, females will get more health care than males in household;
- With increasing age, personal earnings will go up and people will get more health care as well.

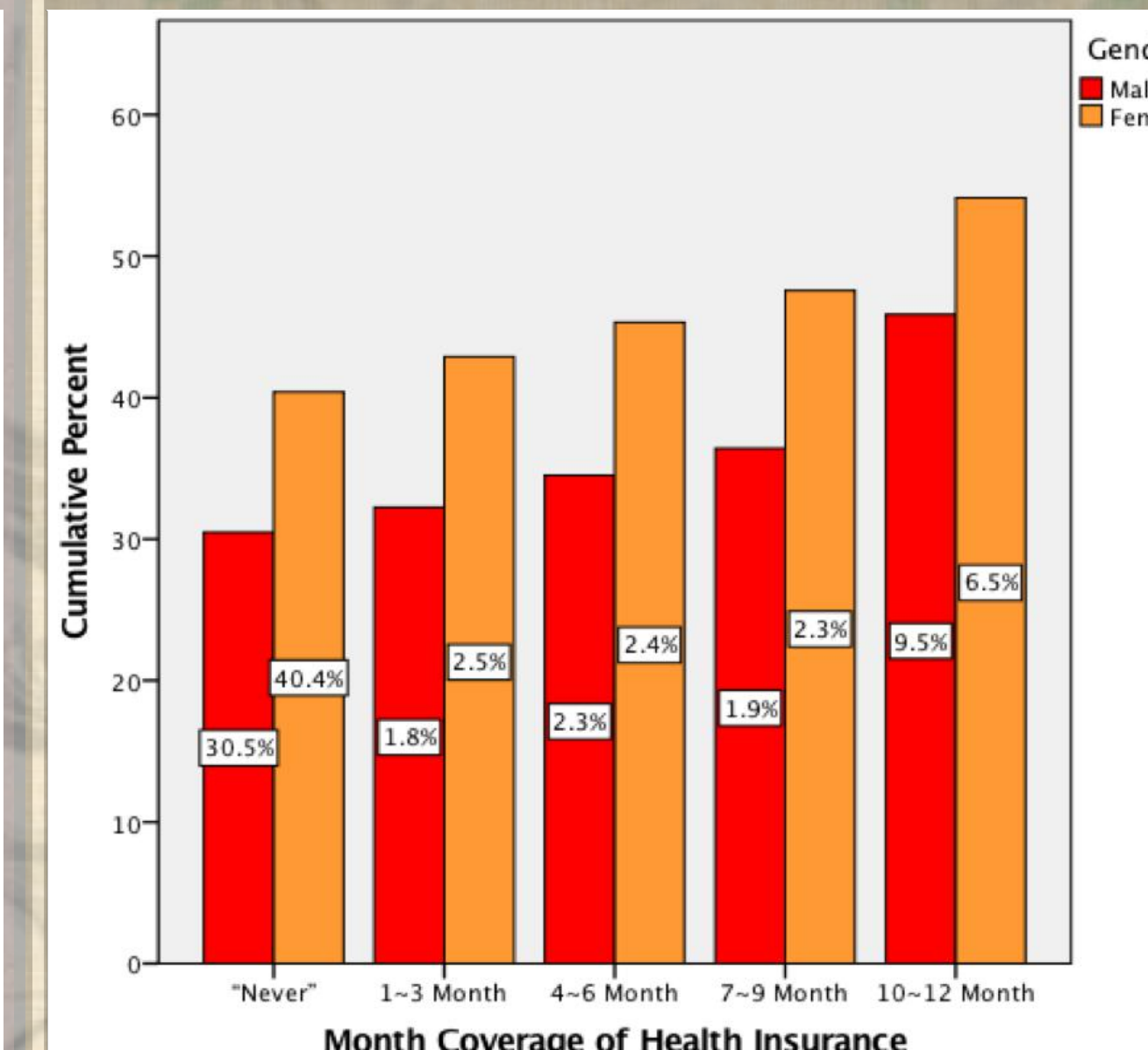
Results

1. Bivariate: between Got Health Care & Personal Earnings



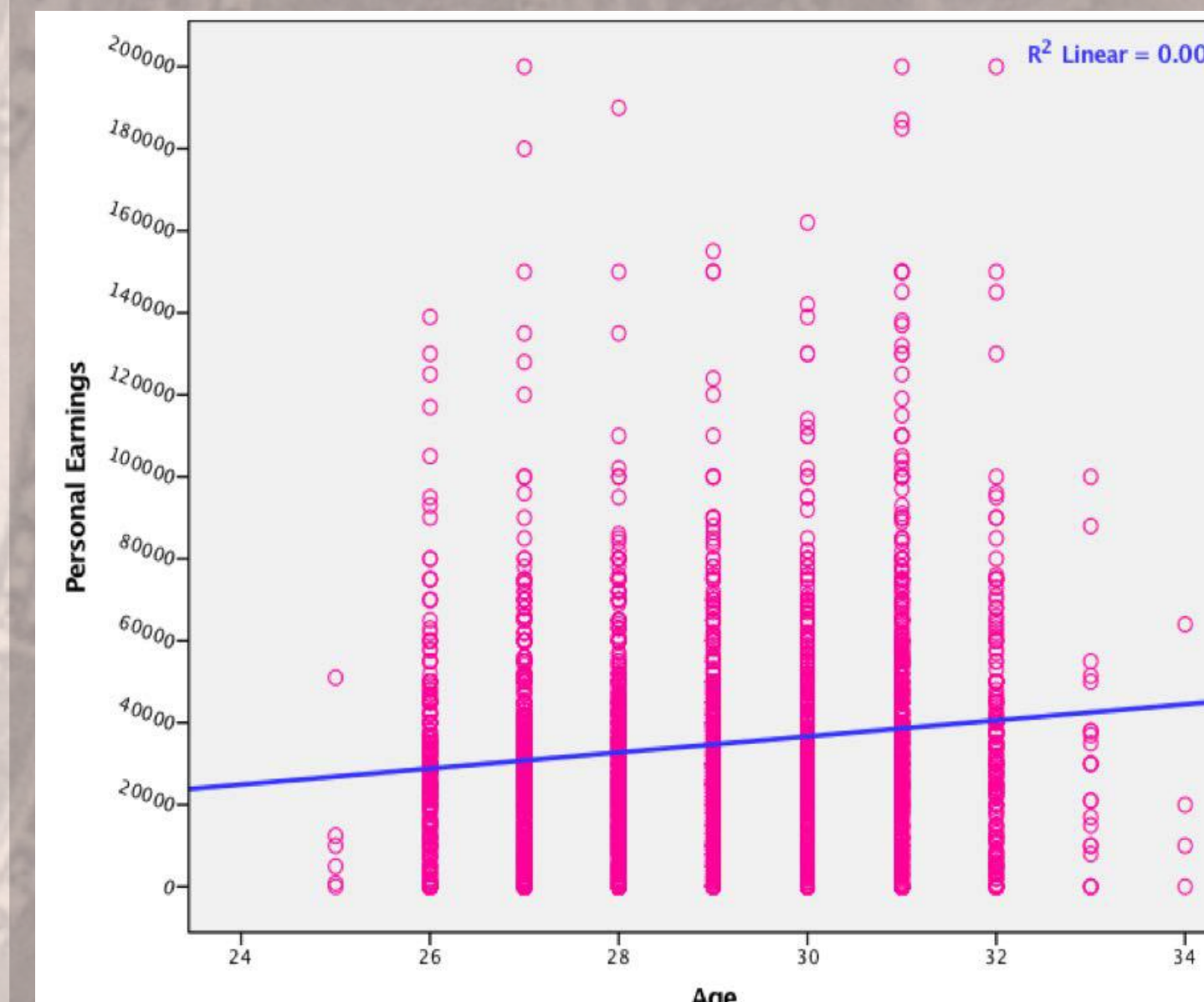
- Method:** Two-sample T-Tests
- Variables:** X-**Bin**-Got Health Care
Y-**Con**-Personal Earnings
- Relationship:** The participants who wanted medical care and got it have on median personal earnings of \$30,000, a little higher than the median personal earnings of who didn't get it at \$25,000. People who wanted medical care and successfully got it have more variation in their personal earnings, but the distributions both look normal, if slightly skewed right.
- Conclusion:** There is a statistically significant difference between the mean of personal earnings for people who got health care it or not ($t=5.38$, $p=.000$). In other words, this is a statistically significantly difference higher mean score on getting health care (36855.61) than failing to get (27918.87) with a p-value of .000.

2. Bivariate: between Gender & Last year Month-Covered of HI



- Method:** χ^2 Test of Association
- Variables:** X-**Cat**-Month Coverage of HI
Y-**Bin**-Gender
- Relationship:** The distribution of gender appears to be different across the numbers of month covered of health insurance last year. For never having health insurance last year, females made up 6.5% and compared with man made up 9.5%; For those who had covered health insurance of 10~12 months last year, females made up 40.4% but man just made up 30.5%.
- Conclusion:** There is an association between gender and last year month-covered of health insurance ($X^2 = 47.7$, $df=4$, $p<.0001$).

3. Multivariate: between Age, Personal Earnings & Gender



- Method:** Correlation Analysis(ANOVA)
- Variables:**
Y-**Con**-Outcome: Personal Earnings
X-**Con**-Predictor: Age
Z-**Bin**-Moderator: Gender
- Multivariable Model:** The estimate of F-value for age in the original model is 23.64, P-value $<.0001$. After adding the modifier of gender, there was no change in the relationship between age and personal earnings. There was still difference between males and females. For male, the estimate ($F=3.65$, $p=0.056>5\%$) ($CL=95\%$); For female, the estimate ($F=17.49$, $p<.0001$).
- Conclusion:** Within the male gender, there is little to no relationship between age and personal earnings. For female gender, the relationship is still significantly positive. So, **gender** moderates the effect of age on personal earnings.

Conclusions

- My results have shown that both **age and gender** are significantly associated with personal earnings and getting health care. Though, age and personal earnings are weakly linearly correlated, (for every 1 year older the age of a person is, the personal income is increased by \$1956.51);
- Compared with males, **females** pay more attention to having health insurance, (for never having health insurance last year, females made up 6.5% and compared with men made up 9.5%; For those who had covered health insurance of 10~12 months last year, females made up 40.4% but men just made up 30.5%).
- In return, **personal earnings** also affect the way of people seek health care. Such as, the frequency and position of the people getting health insurance are affected by PE. (People who got health care last year have on median personal earnings of \$30,000, a little higher than who didn't get it at \$25,000).

Implications

- Further research should be conducted to determine which relationships between personal earnings and health insurance variables are influenced by gender and other confounders. **Gender** was a moderator or a confounder for some, but not all of the statistical tests.
- The reverse relationship involving getting health care as predictors and personal earnings as the outcome measure was not investigated. Further research should be done in this area using more humanized information, such as health history, working situation, as well as family status.

References

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Acknowledgements

A special thanks to the Department of Mathematics and Statistics of Teachers and Scientists as well as my instructor, **Dr. Robin Donatello** and my specific **lab group members**.