



Online-Appendix zu

„On the Analysis of Moral Hazard Using Experimental Studies“

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Appendix

Dependent variable	(1)	(2)	(3)	(4)	(5)	(6)
	Probit	Probit	Tobit	Tobit	Tobit	Tobit
	Overcharging indicator	Overcharging indicator	Overcharging amount	Overcharging amount	Price index	Price index
Moral hazard	0.193*** (0.048)	0.291*** (0.061)	2.735*** (0.704)	4.033*** (1.007)	0.109*** (0.025)	0.132*** (0.030)
Female	0.072 (0.044)	0.181*** (0.058)	0.965 (0.681)	2.384** (0.996)	0.037* (0.023)	0.062** (0.031)
Female × moral hazard		-0.166** (0.065)		-2.383* (1.307)		-0.047 (0.044)
Fixed effects	Route	Route	Route	Route	Route	Route
N	400	400	400	400	400	400

Notes. All reported coefficients are marginal effects. Standard errors in parentheses, clustered by quadruple. The overcharging indicator in (1) and (2) is 1 if overcharging took place, and 0 otherwise. The unconditional overcharging amount in (3) and (4) is left-censored at 0. The price index in (5) and (6) is left-censored at 1. *, ** and *** denotes significance at the 10%, 5% and 1% levels respectively. All p-values and corresponding significance levels are obtained using the Bonferroni correction for multiple hypotheses testing within each regression (but not across regressions).

Appendix 1: Series of Regressions on Overcharging and Price⁵⁰

Question	Q1 (prudence)	Q2 (second-degree moral hazard)	Q3 (animus-based discrimination)	Q4 (third-degree price discrimination)	Q5 (misperceived third-degree price discrimination)
Mean	3.4	1.73	2.47	2.73	3.13
Standard deviation (SD)	0.828	0.704	0.743	0.798	0.833

Answers range from 1 (very likely) to 4 (very unlikely).

Appendix 2: Mean Answers for the Five Questions⁵¹

Dependent variables	Insurance incentive	No insurance incentive	Insurance no incentive	No insurance no incentive
For both patients				
Raw drug expenditure (yuan)	522.11 (35.80)	365.14 (23.63)	-	-
s.e.	0.64 (0.10)	0.40 (0.10)	0.28 (0.09)	0.40 (0.10)
Prescription for triglycerides (0/1)	424.78 (23.54)	298.71 (15.84)	324.50 (18.95)	307.03 (15.44)
s.e.	2.47 (0.10)	2.20 (0.08)	2.18 (0.07)	2.18 (0.06)
Monthly drug expenditure D&H (yuan)	2.53 (0.11)	2.09 (0.08)	2.16 (0.09)	2.12 (0.07)
s.e.	0.83 (0.04)	0.68 (0.05)	0.81 (0.03)	0.80 (0.04)
Share of branded drugs D&H (0-1)	25	25	-	-
s.e.	49	49	49	49
Obs. for triglycerides				
Obs. for other variables				

Notes: "D&H" represents "for diabetes and hypertension only." Standard errors are in parentheses.

Appendix 3: Average Treatment Outcomes⁵²

⁵⁰ Balafoutas, Kerschbamer and Sutter (2017, p. 11)

⁵¹ Kerschbamer, Neururer and Sutter (2016, p. 7457)

⁵² Lu (2014, p. 161)

Dependent variables	(1)	(2)	(3)	(4)	(5)
Raw drug expenditure (yuan)	155.49*** (37.67)				
Prescription for triglycerides (0/1)	0.26* (0.14)	-0.07 (0.09)	0.35*** (0.10)	-0.01 (0.13)	0.34** (0.14)
Monthly drug expenditure D&H (yuan)	125.53*** (25.46)	16.67 (23.38)	101.22*** (30.93)	-5.09 (19.38)	103.71** (38.37)
Number of drugs D&H	0.27** (0.12)	-0.01 (0.09)	0.29** (0.11)	0.02 (0.09)	0.26** (0.13)
Unit of drugs D&H	0.45*** (0.11)	0.02 (0.10)	0.38*** (0.13)	-0.04 (0.10)	0.39** (0.16)
Share of branded drugs D&H (0-1)	0.14** (0.05)	0.01 (0.04)	0.02 (0.04)	-0.11* (0.06)	0.13* (0.07)
Control for:					
Hospital fixed effects	Y	Y	Y	Y	Y
Visit characteristics	Y	Y	Y	Y	Y
Obs for triglycerides	50	50	50	50	100
Obs for other variables	98	98	98	98	196

Notes: "D&H" represents "for diabetes and hypertension only." The dependent variables are listed on the left, and each coefficient is from one separate regression. All regressions are linear regressions. Both Patients 1 and 2 are included in the sample. Column (1) tests the effect of insurance on various outcome variables when doctors are expected to pocket part of their patients' drug expenditure, while column (2) tests the effect of insurance when doctors are not incentivized. Columns (3) and (4) show the impact of doctors' incentives among insured patients and uninsured patients separately. Column (5) presents the effect of the interaction of insurance and incentive. Standard errors, clustered at the hospital level, are in parentheses. * denotes significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Appendix 4: Effects of Insurance and Incentives⁵³

	Impact of competition		Impact of insurance	
	Without insurance	With insurance	Without competition	With competition
	BASE vs. COMP	INS vs. INS-COMP	BASE vs. INS	COMP vs. INS-COMP
(1) consulting rate	-1.28	-2.62 ***	-1.09	-2.75 ***
(2) overtreatment rate	3.00 ***	2.36 **	-3.13 ***	-3.07 ***
(3) efficiency rate	-1.34	-2.62 ***	-1.09	-2.75 ***
(4) correct treatment rate (CTR)	-1.60	-2.36 **	0.83	-0.58
(5) average earnings physician	-1.09	-2.49 **	-1.98 **	-2.88 ***
(6) average earnings patients	-1.60	-1.47	2.88 ***	1.73 *

Notes: see Table 2 for explanations of variables. Positive numbers indicate that the value of the variable is larger in the treatment condition named first, and vice versa for negative values. * $p \leq 0.1$; ** $p \leq 0.05$; *** $p \leq 0.01$.

Appendix 5: Wilcoxon-Mann-Whitney Test⁵⁴

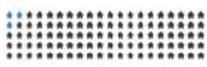
⁵³ Lu (2014, p. 161)

⁵⁴ Huck, Lünsner, Spitzer and Tyran (2016, p. 88); The column BASE represents results from CONTROL.

Flood protection investment decision

[open instructions](#) / scenario 3 / round 1

you own : your house and **79,000 ECU** in savings (the income of 4,000 ECU has been added) x


Each round there is a flood risk of **3 percent**


Estimated damage in case of a flood **50,000 ECU**

 insurer pays 80 percent of damage  you pay 20 percent (deductible)
You have mandatory insurance against floods
In exchange for a premium of 1,200 ECU each round, the insurance company pays part of your damage in case of a flood.

How much do you want to invest to reduce the damage of a flood in the coming rounds of this scenario?

0 ECU	1,000 ECU	5,000 ECU	10,000 ECU	15,000 ECU
no investment now: accept damage of 50,000 ECU	reduce damage to 46,156 ECU	reduce damage to 33,516 ECU	reduce damage to 22,466 ECU	reduce damage to 15,060 ECU
you pay 10,000 ECU deductible if flooded	you pay 9,231 ECU deductible if flooded	you pay 6,703 ECU deductible if flooded	you pay 4,493 ECU deductible if flooded	you pay 3,012 ECU deductible if flooded

Appendix 6: Investment Screen in INS⁵⁵

Floodrisk

[open instructions](#) / scenario 3 / round 1

you own : your house and **77,800 ECU** in savings

In round 1, your house was not flooded.



Because your house was not flooded, you don't have to pay anything.

[Go to next round](#)

Appendix 7: Flood Screen⁵⁶

⁵⁵ Mol, Botzen and Blasch (2018, p. 7)

⁵⁶ Mol, Botzen and Blasch (2018, p. 8)

Why & How Your Employees are Wasting Time at Work

by Salary.com Staff - April 17, 2018

Survey Reveals Top Employee Time Wasters at Work

A Facebook status update here, a Tweet there and finding that perfect dinner recipe on Pinterest. These days, most jobs require a computer, and workplace distractions are plentiful. But how much time do employees waste visiting personal websites that aren't work-related? And on a more philosophical note, what should we consider to be time wasters at work? We surveyed more than 3,200 people from February to March 2012 to find out the biggest time wasters at work.

In this era of constant connectivity, we are slaves to our laptops, smartphones, and tablets. Ideally, that should be fantastic news for employers: employees can take their work with them wherever they go. But the flip side is the constant temptation to slack off. Of the people we surveyed, 64 percent said they visit non-work related websites every day during work hours. However, that number is down nearly 10 percent from when we last conducted this survey (2008). With rising unemployment in the last four years, it's likely employees have fewer workplace distractions because they're spending more time on their added job responsibilities.

How Much Wasted Time?

Almost two-thirds of all respondents report wasting time at work, but how much time? Thirty-nine percent of respondents said they spend a mere 1 hour a week or less on non-work related items. That's followed by 29 percent who spend up to 2 hours a week wasting time on the computer at work, and 21 percent who waste up to 5 hours a week. Only 3 percent of respondents spend 10 hours or more on personal tasks in a given week.

Workplace Distractions

We asked our 3,200 respondents which websites they visit if they do stray from work-related tasks. Most people spend time checking their personal email, visiting news sites, performing Google searches, monitoring social media and shopping online.

It probably comes as no surprise Facebook topped the list, visited by 41 percent of our respondents, followed closely by LinkedIn at 37 percent, Yahoo at 31 percent, Google+ at 28 percent and Amazon.com with 25 percent. Twitter ranked near the bottom at a mere 8 percent. And, even though Pinterest has been garnering a lot of media attention lately, only 4 percent of our respondents currently use the service.

Why Do Employees Waste Time?

We're Salary.com, which means we tend to focus a lot on compensation. So if employees are wasting time instead of working, it stands to reason they might be doing it because they're underpaid, right? Wrong.

Of the top six reasons why employees waste time at work, being underpaid ranked dead last at 18 percent. Most employees -- 35 percent -- said they waste time at work because they're not challenged enough. Following closely, 34 percent of employees claimed they waste time because their hours are too long; 32 percent believe their company gives them no incentive to work harder; 30 percent are simply unsatisfied. Additionally, 23 percent of respondents said they waste time at work simply because they're bored.

Types of Employees Wasting Time at Work

More than two-thirds -- 69 percent -- of men reported using the Internet for personal reasons during work hours on a daily basis, compared to 62 percent of women.

And, even though many assume that younger workers spend more time on websites that aren't work-related, that's not the case. Workers between the ages of 26-35 topped the list with 75 percent wasting time at work on a daily basis, compared to the 72 percent of 18- to 25-year-olds.

Daily Internet use at work dropped off among older workers with 65 percent of people ages 36-45; 58

percent of people ages 46-55; and 55 percent of people 56 and older wasting time on the Internet while at work every day.

Even among those who waste more than 10 hours a week at work, the 18-25 group comes in third (15 percent) behind workers 26-35 (35 percent) and 36-45 (29 percent).

Educated Employees Waste More Time

Although it's never a waste of time to get a good education, our survey shows the more educated you are the more time you waste at work.

Only 59 percent of high school graduates reported wasting time at work on a daily basis. Compare that to the 67 percent of respondents with doctorate degrees, people with bachelor's degrees at 66 percent, and those who have earned master's degrees at 65 percent. One possible reason for the disparity: people with college degrees and higher levels of education tend to step into managerial and supervisory roles.

Does it Make Sense to Block Personal Sites?

With so many workers doing something other than work every day, what's an employer to do? Well, 30 percent of respondents said employers block personal sites like Facebook and Twitter at work. Unfortunately, for the companies that block personal websites, their efforts might be fruitless; 60 percent of the people surveyed said they would simply use their own smartphones, tablets, and laptops to access personal websites during work hours.

A recent report by KPMG International addressed the ramifications of employers choosing to block personal websites at work. "Executives may be naïve in thinking that banned access to social networks eliminates employee use," suggested Tudor Aw, KPMG's European head of Technology. "Indeed, the survey shows that by restricting or blocking access, many employees tend to move their activity to their own personal devices which are often less secure and completely unmonitored."

With social media ingrained into the everyday lives of most workers, how do employees feel about not being able to access their personal sites? Apparently, it's not a big deal.

A whopping 79 percent of people who took our survey said they simply don't care whether or not employers block certain websites, and that it would not affect their decision to work there. And while 18 percent said the restrictions would make them look unfavorably on the company in question, 4 percent said the company's no-nonsense approach actually makes it a more attractive place to work.

Although 70 percent of respondents said their employers don't put any restrictions on online use in place, maybe companies do have some valid fears. Businesses pay millions of dollars every year to retain employees and cut down on turnover costs. Therefore those companies might have a problem with the fact that nearly half -- 46 percent -- of those surveyed said they've spent time job hunting during work hours and on company computers.

Too Many Meetings

But companies that solely blame the Internet for wasted time aren't necessarily seeing the big picture.

Only 18 percent of those surveyed listed the Internet as a workplace distraction. The biggest waste of time, according to 47 percent of our respondents, is having to attend too many meetings. That's followed by dealing with office politics (43 percent); fixing other peoples' mistakes (37 percent); coping with annoying coworkers (36 percent); busy work (22 percent); and returning an abundance of work emails (20 percent). Dealing with bosses came in last at a mere 14 percent.

But, is checking Facebook, chatting with coworkers, etc. truly a waste of time? Not according to the people who took our survey.

How to Increase Productivity at Work

Nearly three-quarters -- 71 percent -- of respondents said they believe short breaks throughout the day are beneficial. Those surveyed cited that employees would likely be more productive with brief periods of

downtime to check Facebook and Twitter.

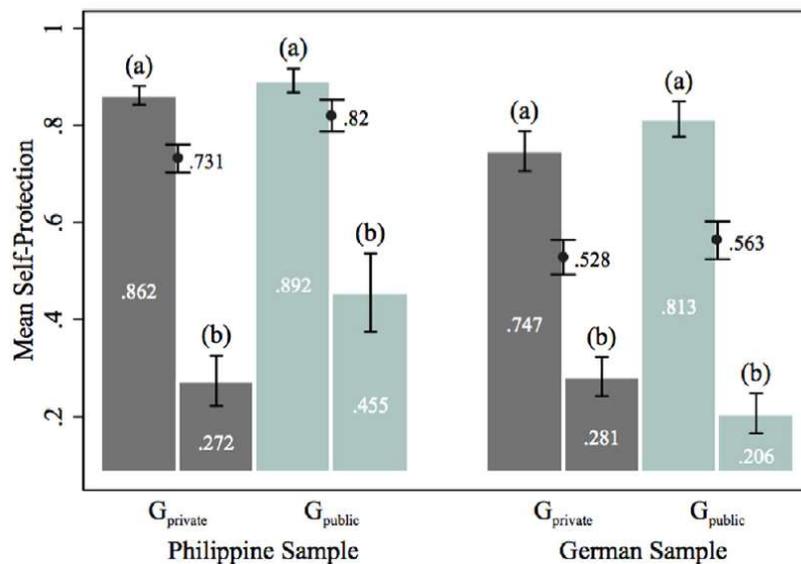
Rudy Karsan, CEO of Kenexa, an IBM company (Salary.com's parent company), spoke on this very topic at Salary Talk last year, "Basically, younger workers are coming in and saying 'I'm going to be at my desk, I'll continue working, then I'm going to get distracted by doing some shopping or watching YouTube, then I'll come back and do my job.' Back and forth, in and out. When we start to do that we're really blending our lives together with work. I applaud it and hope we never lose that because that's natural for us."

Karsan recognizes the cultural shift taking place and believes in creating a "Work-Life Blend" as opposed to a balance. More and more employees answer work emails long after they've left the office; some believe this necessitates a little downtime during the workday.

No matter your social media/Internet policy at work, it is important to make it clear and consistent. With more rules and regulation, employees may understand the new expectations, waste less time at work, and thereby increase productivity.

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Appendix 8: Survey by Salary.com⁵⁷



Appendix 9: Mean Proportion of Self-Protecting Participants by Beliefs and Group Insurance Treatments⁵⁸

⁵⁷ Salary.com (2018) <<https://www.salary.com/articles/why-how-your-employees-are-wasting-time-at-work/>>

⁵⁸ Biener, Eling, Landmann and Pradhan (2018, p. 243); The bars represent the proportion of individuals choosing self-protection who had positive (a) and negative (b) beliefs about their peer's self-protection effort.

Author(s)	Context	Circumstances under which moral hazard emerged		Solution
		Second-degree moral hazard	First-degree moral hazard	
Balafoutas, Kerschbamer and Sutter (2017)	taxi rides	- financial incentives for sellers to behave fraudulently - presence of first-degree moral hazard (reimbursement by the employer)		no
Kerschbamer, Neururer and Sutter (2016)	computer repairs	- financial incentives for sellers to behave fraudulently - presence of first-degree moral hazard (insurance)		no
Lu (2014)	medical treatments	- financial incentives for sellers to behave fraudulently - presence of first-degree moral hazard (insurance)		elimination of personal financial incentives for sellers
Huck, Lünser, Spitzer and Tyran (2016)	medical treatments	- financial incentives for sellers to behave fraudulently - presence of first-degree moral hazard (insurance)		competition between sellers
			- insurance coverage - (competition between sellers)	no
Mol, Botzen and Blasch (2018)	natural disaster insurance		- insurance coverage - high probability of loss	premium discount, premium discount and loan
Corgnet, Hernández-Gonzalez and Rassenti (2013)	team work		- team incentives	peer pressure through visible peer monitoring
Biener, Eling, Landmann and Pradhan (2018)	joint liability group (insurance) contracts		- individual insurance coverage	group insurance (pro-social preferences)

Appendix 10: Overview of Experiments⁵⁹

⁵⁹ Own representation based on experiments by the authors mentioned in the first column of the table