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## Pay and Hours

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## Key Findings

- This brief examines how Better Work affects wages, working hours and turnover intention in Vietnam and Indonesia factory employees.
- In Vietnam, both Better Work and non-Better Work employees had significantly higher wages at the endline of about \$150, or 44% more than at the baseline.
- In Vietnam, there is a significant reduction in working hours and overtime at the endline. However, Better Work employees at the endline worked a significant average of two hours more than their non-Better Work counterparts.
- In Indonesia, Better Work employees are paid an estimated \$30.09 more per month compared to their non-Better Work counterparts. Over the span of the experiment, all Indonesian workers' wages increased between \$30 and \$40, or about 16%.
- While there is no evidence that use of production bonuses changed over time for any workers in the Vietnam study, wages for workers in Better Work factories appear to be less determined by production bonuses overtime in Indonesia.
- In Indonesia, there is no evidence that Better Work is affecting working hours or the percentage of workers reporting being paid for overtime.

Low pay and excessive working hours are often cited as the most frequent labor violations in apparel manufacturing (ILO, 2018). SEM equations in the baseline report found that higher monthly wages and fewer weekly hours were related to a reduction in worker fatigue, suggesting that they positively affected workers' mental health. Higher wages and *more* working hours also reduced the likelihood that a worker was seeking out other job opportunities. In this case, higher wages encouraged a worker to stay with their factory while more working hours likely reduced the amount of time when a worker could seek out new opportunities.

Summary statistics for pay, including the use of production bonuses and overtime pay at the baseline are included in Tables 1 and 2 below. In both Vietnam and Indonesia, Better Work factory employees were generally paid a higher wage, worked fewer hours overall, worked less overtime, and were paid more for the overtime hours worked. In Vietnam, Better Work employees were more likely to receive a production bonus and also receive a high bonus pay. In Indonesia, Better Work employees received smaller production bonuses than their non-Better Work counterparts.

Summary statistics of weekly hours suggests that in Indonesia, both Better Work and non-Better Work workers were working 47-hour weeks on average. However, non-Better Work factories reported a wider variation of outcomes with the maximum number of weekly hours reaching over 80 hours a week, compared to the maximum of 66 hours a week for Better Work workers. In Vietnam, employees in both types of factories worked significantly more than in Indonesia – 57 hours on average for Better Work employees, and 59 hours on average for non-Better Work employees. The variation between factory types was also similar. This suggests that in general, Vietnam employees worked longer work weeks than Indonesia workers at baseline.

Average monthly pay at the baseline for Vietnam was \$306.00 for Better Work employees and \$271.50 for non-Better Work employees. In Indonesia, this was \$209.70 for Better Work employees and \$175.60 for non-Better Work employees.

Variable Definitions:

- *Work\_Week*: Hours worked weekly
- *overtime\_amount*: Number of hours over 40 hours a week (less than 40 coded as 0)
- *paid\_overtime*: Do you get paid for overtime work? (Binary)
- *monthlywageUSD*: Monthly wage standardized to USD (natural log coded as *lnmonthlywageUSD*)
- *production\_bonus*: Did you receive a production bonus the last time you were paid? (binary)
- *Bonus\_PayUSD*: How much was your bonus the last time you were paid? Standardized to USD (0 if no to production bonus) (variable with only workers that have received a productivity bonus coded as *Bonus\_PayUSD\_small*)

Table 1 Vietnam Pay and Hours Baseline Summary Statistics

VARIABLES	Better Work Factories					Non-Better Work Factories					Mean Difference
	N	mean	sd	min	max	N	mean	sd	min	max	
<i>Work_Week</i>	680	57.43	6.062	42	91.30	651	59.47	6.899	40	91	-2.04***
<i>overtime_amount</i>	680	17.43	6.062	2	51.30	651	19.47	6.899	0	51	-2.04***
<i>paid_overtime</i>	661	0.983	0.128	0	1	618	0.929	0.257	0	1	0.054***
<i>monthlywageUSD</i>	683	306.0	134.8	44	2,420	654	271.5	111.3	26.40	1,056	34.5***
<i>production_bonus</i>	667	0.456	0.498	0	1	639	0.383	0.487	0	1	0.073***
<i>Bonus_PayUSD</i>	618	15.11	27.08	0	198	625	11.05	24.97	0	206.8	4.06****
<i>Bonus_PayUSD_small</i>	255	36.61	31.47	0	198	231	29.90	33.56	0	206.8	6.71**

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2 Indonesia Pay and Hours Baseline Summary Statistics

VARIABLES	Better Work Factories					Non-Better Work Factories					Mean Difference
	N	mean	sd	min	max	N	mean	sd	min	max	
<i>Work_Week</i>	204	47.31	4.707	24	66	204	49.27	8.661	33.75	81	-1.96***
<i>overtime_amount</i>	204	7.470	4.253	0	26	204	9.320	8.591	0	41	-1.85***
<i>paid_overtime</i>	198	0.995	0.0711	0	1	192	0.922	0.269	0	1	0.073***
<i>monthlywageUSD</i>	196	209.7	77.67	56.80	449.8	199	175.6	71.39	17.04	426	34.1***
<i>production_bonus</i>	190	0.216	0.412	0	1	186	0.231	0.423	0	1	-0.015
<i>Bonus_PayUSD</i>	187	3.268	7.090	0	42.60	183	6.592	14.76	0	71	-3.324***
<i>Bonus_PayUSD_small</i>	38	16.08	6.407	3.550	42.60	40	30.16	16.97	0.710	71	-14.08***

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Regression Results

Explanatory Variables of Interest:

- *bw\_factory*: Is the worker a member of a Better Work factory? (binary)
- *endline*: Time indicator (1- endline, statistically significant value means dependent variable has changed between the baseline and the endline)
- *bw\_endline*: Interaction between *bw\_factory* and *endline* (statistically significant value means variable changed differently over time between Better Work employees and non-Better Work employees- for full effect of Better Work over time, add the coefficients for *endline* and *bw\_endline* )

Tables 1-4 show statistically significant regression results related to pay and hours.

Columns 1-4 in table 1 show that across all workers in Vietnam, there is a significant reduction in working hours by about eight hours and overtime by about four hours at endline. However, Better Work employees at endline still worked a significant average of two hours more than their non-Better Work counterparts. While Better Work employees tended to work less at baseline, non-Better Work employees were able to decrease their working hours more significantly and thus converge to Better Work work hour levels.

Column 5 of Table 1 shows that Better Work employees were paid an estimated \$27.63 more per month compared to their non-Better Work counterparts. Both Better Work and non-Better Work employees had significantly higher wages at the endline of about \$150, or 44% more than at baseline. Columns 1 and 2 in Table 2 signify that Better Work employee wages increased less than their non-Better Work counterparts, however, Better Work employees maintained a significantly higher premium wage because their wages were already higher at baseline.

Column 5 in table 2 signifies the possibility of a slight increase in bonus pay for Better Work employees at endline, but otherwise there is no evidence that use of production bonuses changed over time for any workers in the Vietnam study. Therefore, Better Work workers at endline were still more likely than non-Better Work workers to have their pay determined by production bonuses.

Table 1 Vietnam Pay and Hours Regression Results (1)

VARIABLES	(1) Work_ Week	(2) Work_ Week	(3) overtime_ amount	(4) overtime_ amount	(5) monthlywageUSD	(6) monthlywageUSD
<i>bw_factory</i>	-1.997** (0.912)	-	-1.964** (0.900)	-	27.63** (11.88)	-
<i>endline</i>	-8.788*** (1.097)	-8.491*** (1.007)	-4.417*** (0.637)	-4.483*** (0.615)	151.9*** (10.33)	147.6*** (13.48)
<i>bw_endline</i>	2.239 (1.524)	2.330* (1.394)	2.112** (0.849)	2.247*** (0.788)	-12.77 (23.92)	-8.702 (23.58)
Constant	67.99*** (4.315)	68.03*** (11.47)	24.23*** (2.945)	18.33*** (6.032)	148.6*** (34.61)	-128.9 (208.6)
Worker Time Effects	RE	FE	RE	FE	RE	FE
Observations	2,546	2,546	2,546	2,546	2,567	2,567
Number of uniqueID	1,335	1,335	1,335	1,335	1,335	1,335

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2 Vietnam Pay and Hours Regression Results (2)

VARIABLES	(1) <i>lnmonthly</i> <i>wageUSD</i>	(2) <i>lnmonthly</i> <i>wageUSD</i>	(3) <i>production_</i> <i>bonus</i>	(4) <i>production_</i> <i>bonus</i>	(5) <i>Bonus_pay</i> <i>USD</i>	(6) <i>Bonus_pay</i> <i>USD</i>	(7) <i>Bonus_Pay</i> <i>USD_small</i>	(8) <i>Bonus_Pay</i> <i>USD_small</i>
<i>bw_factory</i>	0.112*** (0.0399)	-	0.0637 (0.0576)	-	4.555 (3.126)	-	5.594 (5.048)	-
<i>endline</i>	0.438*** (0.0275)	0.444*** (0.0295)	0.0374 (0.0329)	0.0383 (0.0372)	1.432 (1.689)	0.866 (1.956)	1.830 (2.959)	5.416 (3.882)
<i>bw_endline</i>	-0.0949* (0.0520)	-0.0895* (0.0514)	0.0440 (0.0542)	0.0401 (0.0538)	5.638* (3.336)	5.064 (3.190)	5.936 (4.811)	5.376 (4.956)
Constant	5.237*** (0.100)	4.922*** (0.372)	0.0331 (0.0982)	-0.0608 (0.371)	1.694 (4.984)	7.118 (15.75)	41.42*** (11.12)	141.3** (60.29)
Worker Time Effects	RE	FE	RE	FE	RE	FE	RE	FE
Observations	2,567	2,567	2,513	2,513	2,394	2,394	1,024	1,024
R-squared		0.495		0.031		0.040		0.149
Number of uniqueID	1,335	1,335	1,332	1,332	1,319	1,319	761	761

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Column 1 of Table 3 shows that on average in Indonesia, workers reported working 3.5 fewer hours per week at the endline. However, weak to no significance in columns 3 and 4 suggests that the reduction in hours are not necessarily a reduction in overtime. A likely explanation is that workers reporting excessive overtime continue to work long hours while part-time workers and full-time workers not working overtime are reducing the number of hours they work. There is no evidence that Better Work is affecting working hours.

In addition to there being little movement in overtime, the percentage of workers reporting being paid for overtime does not change. While summary statistics suggest that Better Work increased

the likelihood that workers were paid for their overtime, under more rigorous testing, Better Work appears to not have an effect.

Column 5 of Table 3 shows that Better Work employees are paid an estimated \$30.09 more per month compared to their non-Better Work counterparts. Columns 5 and 6 in Table 3 and column 1 in Table 4 show that over the span of the experiment, all workers' wages increased between \$30 and \$40, or about 16%. Better Work did not affect the rate of wage increase for workers, but workers maintained a significantly higher premium wage.

Wages for workers in Better Work factories do appear to be less determined by production bonuses overtime. At endline, these workers were less likely to have been paid a production bonus while there was no change for other workers. However, for the small percentage of Better Work workers that received production bonuses, the value of the bonuses increased by \$23-\$27—this allowed these workers to catch-up and surpass the workers in non-Better Work factories that received \$15 more in production bonuses at the baseline.

Table 3 Indonesia Pay and Hours Regression Results (1)

VARIABLES	(1) <i>Work_</i> <i>Week</i>	(2) <i>Work_</i> <i>Week</i>	(3) <i>overtime_</i> <i>amount</i>	(4) <i>overtime_</i> <i>amount</i>	(5) <i>monthlywageUSD</i>	(6) <i>monthlywageUSD</i>
<i>bw_factory</i>	-2.110 (1.889)	-	-2.299 (1.687)	-	30.09* (18.28)	-
<i>endline</i>	-3.532** (1.740)	-3.312 (2.000)	-1.380* (0.822)	-1.464 (0.982)	37.25*** (12.90)	28.70** (13.99)
<i>bw_endline</i>	-0.696 (2.395)	-1.386 (2.435)	0.860 (1.222)	0.648 (1.243)	-0.915 (16.52)	3.237 (16.90)
Constant	76.60*** (6.943)	50.39*** (10.10)	29.17*** (6.155)	7.806* (4.336)	100.9** (47.61)	-8.324 (65.15)
Worker Time Effects	RE	FE	RE	FE	RE	FE
Observations	763	763	763	763	752	752
Number of uniqueID	408	408	408	408	406	406

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 4 Indonesia Pay and Hours Regression Results (2)

VARIABLES	(1) <i>lnmonthly wageUSD</i>	(2) <i>lnmonthly wageUSD</i>	(3) <i>production_ bonus</i>	(4) <i>production_ bonus</i>	(5) <i>Bonus_pay USD</i>	(6) <i>Bonus_pay USD</i>	(7) <i>Bonus_Pay USD_small</i>	(8) <i>Bonus_Pay USD_small</i>
<i>bw_factory</i>	0.142 (0.0967)	-	-0.0206 (0.0965)	-	-3.319 (3.082)	-	-15.00*** (5.657)	-
<i>endline</i>	0.161** (0.0734)	0.135 (0.0884)	0.0404 (0.0783)	0.0494 (0.0715)	-2.476 (1.865)	-1.368 (1.272)	-12.86*** (4.440)	-76.76 (61.05)
<i>bw_endline</i>	-0.0582 (0.0970)	-0.0482 (0.0975)	-0.192** (0.0923)	-0.198** (0.0888)	1.690 (2.002)	0.737 (1.591)	40.28*** (12.68)	99.79** (39.21)
Constant	4.859*** (0.313)	4.479*** (0.289)	0.948*** (0.366)	0.425** (0.188)	14.77*** (5.444)	2.072 (4.599)	45.57*** (17.29)	-1,036 (898.5)
Worker Time Effects	RE	FE	RE	FE	RE	FE	RE	FE
Observations	752	752	732	732	721	721	129	129
R-squared		0.067		0.111		0.035		0.824
Number of uniqueID	406	406	406	406	406	406	112	112

Robust standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Works Cited

International Labour Organization. Working conditions. (n.d.). Accessed August 21, 2018.  
<https://www.ilo.org/global/topics/working-conditions/lang--en/index.htm>