

Does How You Are Paid Affect the Way You Feel?

Alex Bryson (NIESR, CEP)

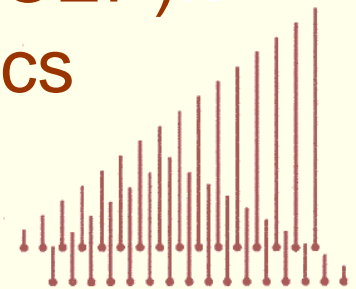
Andrew E. Clark (PSE, CEP and IZA)

Richard B. Freeman (Harvard, NBER, CEP)

16th Colloquium on Personnel Economics

Tubingen

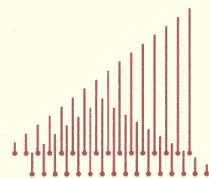
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National Institute
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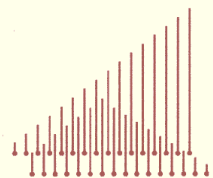
Issue and Contribution

- We know more pay and relative pay both affect wellbeing
- Know less about the wellbeing effects of incentive pay
- Matters because high % paid by incentive
 - 23% in Britain in 2011 (WERS)
- Investigate using multiple data sets for Britain
- Focus on group and company based incentive pay
 - Bonuses, profit shares, share ownership (“share capitalist”)
 - But also individual incentive pay



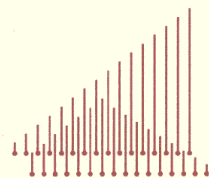
Questions

- Does share capitalism affect employee wellbeing having conditioned on wage level?
 - job satisfaction
 - job-related anxiety (still to come)
 - quits
- Does size of incentive payment matter?
- Can share capitalism mediate the effects of poorer working conditions on worker wellbeing?
- Are there spillovers to co-worker wellbeing?



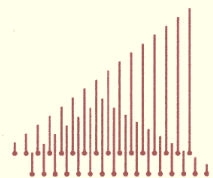
Theory

- Incentives
 - Direct income effect: ns if simply compensates for effort
 - But efficiency wage=above market rate (+ or – for wellbeing?)
- Fairness
 - Reference points
 - How rate is set. Fair if
 - merited by output/ability
 - can affect your own output
 - 1/n and free-rider problem
 - Resolution via co-worker monitoring but not nice?
- Gifts/reciprocity
 - Wage -> effort
 - Co-ownership, firm identification: more forgiving of bad conditions?
 - Option to refuse shares, not wage -> warm glow
 - Spill-over to other workers? (culture, reciprocators)
 - Dispute over whether size of gift matters (symbolic v not)



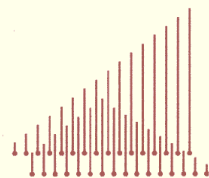
Identification problem

- Worker selection into firm, occupation
- Worker selection into incentive pay
- Heterogeneity
 - risk
 - ability
 - effort
 - reciprocation
- Contingent pay +ve association with wellbeing may be driven by selection if workers sort by preference
- Data issues



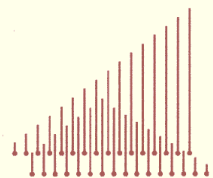
Evidence to Date

- Wage levels
 - Levels and relativities +ve for job sat (Brown et al., 2008)
 - Levels also +ve for job anxiety (Bryson et al., 2012)
 - Evidence of compensating wage differentials as per Rosen (1974)
 - Negative association with quits
- Individual performance-based pay
 - +ve for job satisfaction (Green/Heywood 1998 BHPS with FE) but Pouliakas and Theodossiou 2009 find ns
 - +ve for absenteeism (Frick and Simmons, 2013)
 - +ve for injury rates (Bender et al., 2012)
- Share capitalism
 - Lower quit intent (Bryson and Freeman, 2012; Kruse et al 2012))
 - Generally positive eg. Pouliakas and Theodossiou 2009 find bonuses/profit share +ve for job sat.
 - but almost nothing on 'hard times' (Kruse 1984 exception)
 - Though wellbeing varies with stock market (Deaton, 2011)



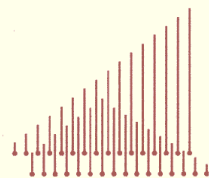
Data

- ShareCo single firm
 - Multinational , business services, 4 countries in 2007 plus UK follow up in 2010
- European Working Conditions Survey 2005
 - Will also be running on EWCS 2010
- British Household Panel Survey 1991 to 2008
 - to be extended
- WERS 2011
 - Publicly available in March 2013

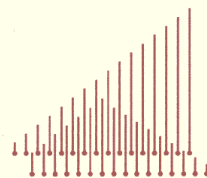


Analysis

- ShareCo
 - Job satisfaction
 - Effects of share plan participation and commission
 - Work unit fixed effects (nice if assume quasi-random allocation to work unit)
- EWCS
 - Satisfaction with working conditions
 - Individual workers , country FE
 - Superb data on working conditions, hazards, risks
 - Share ownership, profit-sharing, group PBR, piece rates
- BHPS
 - Individual panel data, FE
 - Job satisfaction and quits
 - Profit sharing/bonuses

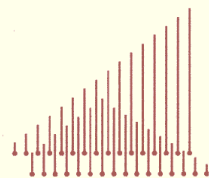


RESULTS PART 1:
ASSOCIATION BETWEEN
CONTINGENT PAY AND
WORKER WELLBEING



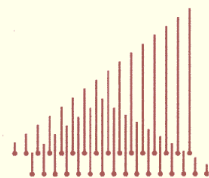
Job satisfaction, Share Plan Membership, and PBR in ShareCo

	Pooled UK, 2007 and 2010	
	OLS	Work Unit FE
Member	.23 (4.57)	.23 (4.33)
% Member	.08 (4.24)	.08 (4.21)
Commission	.15 (2.30)	.12 (1.74)
Adj. R ²	.08	.09
N	1887	1887



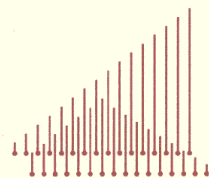
Job satisfaction, Share Plan Membership, and PBR in ShareCo

	Pooled UK, 2007 and 2010	
	OLS	Work Unit FE
Member	.11 (2.79)	.10 (2.36)
% Member	.03 (1.81)	.03 (1.84)
Commission	.05 (1.11)	.06 (1.20)
Log wage	-.00 (0.14)	-.01 (0.27)
Loyalty	.23 (25.56)	.23 (24.30)
Fairness	.04 (3.76)	.04 (3.62)
Adj. R ²	0.43	0.42
N	1816	1816



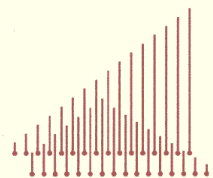
Satisfaction with Working Conditions, EWCS 2005

	M (1)	M (2)	M (3)	M (4)
Company shares	0.15 (2.34)	0.13 (2.17)	0.12 (2.01)	0.13 (2.03)
Profit sharing	0.15 (4.31)	0.08 (2.47)	0.09 (3.02)	0.09 (2.88)
Group PBR	0.12 (2.56)	0.10 (2.52)	0.08 (2.03)	0.08 (2.12)
Piece rate or productivity payments	-0.09 (2.99)	-0.02 (0.71)	-0.02 (0.54)	-0.01 (0.53)
Threats or discrimination at work	--	--	-0.10 (9.05)	-0.10 (9.01)
Health or safety at risk because of work	--	--	-0.32 (14.89)	-0.32 (14.71)
N hazards exposed to at work	--	--	-0.02 (6.20)	--
N hazards exposed to for at least ¼ time	--	--	--	-0.02 (4.82)
Adjusted r-squared	0.09	0.22	0.28	0.28
N	21191	21191	21191	21191

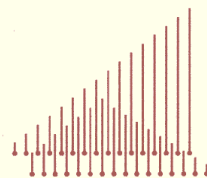


Job Satisfaction in BHPS, 1998-2008

	Overall Job Satisfaction Pooled	Panel with Person FE
Log wage	0.128 (0.021)***	0.235 (0.020)***
Incentive pay	0.044 (0.016)***	0.044 (0.014)***
Constant	6.700 (0.133)***	5.998 (0.636)***
Observations	59173	59173
R-squared	0.08	0.04
Number of cross-wave person identifier		9876

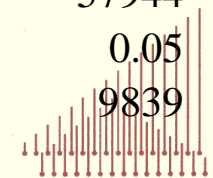


RESULTS PART 2:
DOES CONTINGENT PAY
MEDIATE IMPACT OF
HARSH CONDITIONS ON
WORKER WELLBEING?

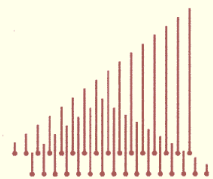


Job Satisfaction and Poor Conditions, BHPS, 1991-2008

	Overall Job Satisfaction			
	Pooled		Panel	
lnwage	0.138	0.133	0.245	0.238
	(0.022)***	(0.022)***	(0.020)***	(0.020)***
incent	0.012	0.014	0.029	0.037
	-0.019	-0.023	(0.016)*	(0.020)*
no. of overtime hours in normal week	-0.005		-0.003	
	(0.001)***		(0.001)***	
incent*overtime hours	0.007		0.004	
	(0.002)***		(0.002)*	
trvtime		-0.237		-0.073
		(0.050)***		(0.040)*
incent*trvtime		0.145		0.046
		(0.069)**		(0.057)
Constant	6.685	6.724	5.982	5.965
	(0.133)***	(0.134)***	(0.639)***	(0.644)***
Observations	58603	57944	58603	57944
R-squared	0.09	0.09	0.05	0.05
Number of cross-wave person identifier			9856	9839

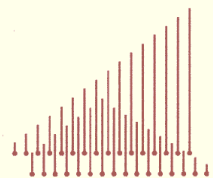


RESULTS PART 3:
DOES BONUS SIZE
MATTER?



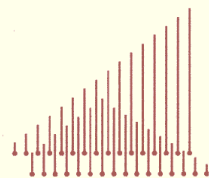
Bonus Size and Job Satisfaction in BHPS

	Pooled Years	Panel
lnwage	0.122 (0.022)***	0.241 (0.021)***
Bonus \leq £500	0.013 (0.022)	0.002 (0.019)
Bonus $>$ £500	0.121 (0.026)***	0.083 (0.023)***
Constant	6.735 (0.137)***	5.975 (0.665)***
Observations	55673	55673
R-squared	0.09	0.04
Number of cross-wave person identifier		9800

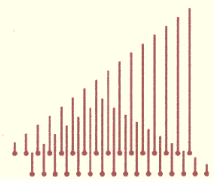


Size of Bonus, Working Conditions and Job Sat in BHPS

	Pooled	Pooled	Panel	Panel
Inwage	0.131 (0.022)***	0.126 (0.022)***	0.250 (0.021)***	0.242 (0.021)***
Bonus <= £500	-0.013 (0.026)	0.017 (0.035)	0.002 (0.023)	0.018 (0.029)
Bonus > £500	0.110 (0.032)***	0.064 (0.039)	0.088 (0.027)***	0.048 (0.033)
no. OT hours in normal week	-0.003 (0.001)**		-0.002 (0.001)	
OT hours and low bonus	0.007 (0.003)**		0.001 (0.003)	
OT hours and high bonus	0.002 (0.003)		-0.001 (0.003)	
trvtime		-0.212 (0.047)***		-0.048 (0.040)
Travel time and low bonus		-0.026 (0.125)		-0.065 (0.094)
Travel time and high bonus		0.230 (0.093)**		0.142 (0.082)*
Constant	6.719 (0.137)***	6.754 (0.137)***	5.977 (0.669)***	5.952 (0.673)***
Observations	55125	54566	55125	54566
R-squared	0.09	0.09	0.04	0.04



RESULTS PART 4:
DOES CONTINGENT PAY
AFFECT QUIT RATES?

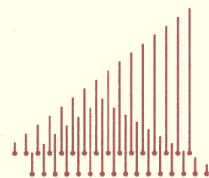


QuitsBHPS, 1991-2008, Cox Proportional Hazard Models

	(1)	(2)
lnwage	-0.295 (0.052)***	-0.260 (0.056)***
incent		-0.184 (0.049)***
Observations	47372	40262

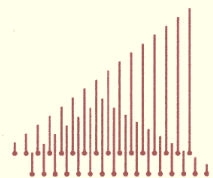
Robust standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%



Summary of findings so far

1. Share cap positively associated with job satisfaction and lower quits
2. Robust to person FE, work unit FE, worker characteristics, job conditions.
3. Loyalty/fairness perceptions account for some of this but not all.
4. Others' membership of share plan raises your satisfaction, irrespective of own membership and robust to work unit FE. Why? Happy workplace culture?
5. Those in receipt of contingent pay are less sensitive to harsh working conditions.
6. Size of incentive bonus matters in mediating negative effect of harsh conditions and reducing quits.



Still To Do

1. Analysis of WERS 2011

- Individual level data on incentive payments
- Job sat and job related anxiety
- Condition on workplace FE

2. General Social Survey, 2006-2010

- Special module of questions on share capitalism
- Job satisfaction and stress
- Panel and Cross-section

3. EWCS 2010

4. BHPS update

