## Job satisfaction and bad jobs: Why are cleaners so happy at work? Alexandre Léné

## Statistical appendix

**Appendix 1: the Cleaners sample** 

	N	%
Domestic Cleaners and Helpers	998	34.71
Cleaners and Helpers in Offices, Hotels and Other Establishments	1408	48.97
Window Cleaners	1	0.03
Garbage and Recycling Collectors	56	1.95
Refuse Sorters	1	0.03
Sweepers and Related Labourers	7	0.24
Odd-job Persons	403	14.02

N = 2874

Source: DARES Working Conditions survey, 2013

**Appendix 2: descriptive statistics** 

	Total population	Cleaning
Proportion of women	49.8%	80.5%
Average age	41.2	45.6
Level of education		
College certificate	15.5%	44.3%
CAP-BEP qualifications	27.2%	41.5%
Bac school leaving certificate (general or vocational)	18.1%	10.7%
Bac school leaving certificate + 2 years' higher education	14.3%	2.1%
Bac school leaving certificate + 3 or more years' higher education	24.9%	1.5%
Monthly income		
between 0 and 999€	14.8%	48.1%
between 1000 and 1499€	27.9%	36.1%
between 1500 and 1999€	25.4%	13.2%
between 2000 and 2999€	20.3%	2.0%
more than 3000€	11.5%	0.6%
State of health		
Very good	25.9%	15.3%
Good	50.2%	47.8%
Fairly good	19.1%	25.6%
Poor	4.3%	9.9%
Very poor	0.6%	1.4%
Born abroad	10.5%	18.1%
Has a permanent contract	84.8%	76.9%
Works part-time	19.3%	51.7%
The working day is normally split into 2 periods separated by a gap of 3 hours or more	6.5%	13.9%
Obliged to remain standing for long periods of time	50.8%	87.4%
Obliged to maintain an awkward or tiring posture over a long period	34.5%	55.5%
Works in a dirty environment	28.8%	50.7%
The work involves continually repeating the same series of motions or operations	41.7%	69.9%

weighted data
Source: DARES Working Conditions survey, 2013

Appendix 3 Average satisfaction score by socio-occupational category

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	N	Average
Liberal professions	96	0.97
cleaners	2874	0.78
Agricultural workers	240	0.67
Managerial staff working in the public sector	806	0.56
Secondary school teachers, scientific professions	1345	0.49
Professions linked to information, the arts and entertainment	224	0.48
Civil servants and general duty personnel working in the public sector	4410	0.43
Intermediate occupations in healthcare and social work	2552	0.40
Skilled craft-type manual workers	1392	0.30
Engineers and technical managers working in the private sector	970	0.30
Primary school teachers and employees of similar status	1145	0.21
Intermediate administrative occupations in the public sector	974	-0.01
Foremen, supervisors	594	-0.29
Administrative staff working in the private sector	1577	-0.37
Police and military	669	-0.38
Unskilled craft-type manual workers	665	-0.40
Intermediate administrative and commercial occupations in the private sector	1762	-0.57
Technicians	1246	-0.59
Drivers	573	-0.76
Employees working in the retail industry	1071	-1.53
Skilled manual workers employed in handling, warehousing and	403	-1.73
transportation		
Skilled industrial-type manual workers	1097	-1.73
Unskilled industrial-type manual workers	799	-2.01

Source: DARES Working Conditions survey, 2013

Appendix 4 Estimation of the determinants of job satisfaction

	DOL C		Endogenity corrected		
	POLS		IV approach		
	Estim. Val.	Stand. Dev.	Estim. Val.	Stand. Dev.	
Intercept	-3.012 ***	(0.655)	-2.429 ***	(0.752)	
Cleaning	0.478 ***	(0.180)	0.464 ***	(0.180)	
Man	-0.194 *	(0.099)	0.036	(0.184)	
Age	0.059 **	(0.024)	0.054 **	(0.024)	
Age squared	-0.001	(0.001)	-0.001	(0.001)	
CAP-BEP qualifications	-0.236	(0.143)	-0.127	(0.165)	
Bac school leaving certificate (general or vocational)	-0.767 ***	0.156)	-0.460 *	(0.259)	
Bac school leaving certificate + 2 years' higher education	-0.998 ***	(0.172)	-0.520	(0.366)	
Bac school leaving certificate + 3 or more years' higher education	-0.952 ***	(0.169)	-0.324	(0.444)	
Poor state of health	-1.075 ***	(0.053)	-1.105 ***	(0.057)	
Born abroad	0.567 ***	(0.149)	0.498 ***	(0.155)	
Living as a couple	0.012	(0.107)	0.017	(0.107)	
Lives in the Ile-de-France region	-0.168	(0.117)	-0.157	(0.117)	
Currently the main breadwinner of the household	0.203 *	(0.103)	0.221 **	(0.104)	
No. of children aged under 3	-0.191	(0.119)	-0.161	(0.118)	
No. of children aged between 3 and 17	0.061	(0.045)	0.051	(0.046)	
No. of children aged 17 and over	0.172 *	(0.095)	0.156 *	(0.095)	
Length of service	-0.002 ***	(0.001)	-0.002 ***	(0.001)	
Apprenticeship contract	0.439	(0.388)	0.456	(0.388)	
Temporary work	0.102	(0.372)	0.090	(0.371)	
Intern	0.539	(0.678)	0.569	(0.682)	
Fixed-term contract	0.574 ***	(0.161)	0.534 ***	(0.162)	
Size of workforce: 1 to 4 employees	0.120	(0.208)	0.131	(0.206)	
Size of workforce: 5 to 9	0.080	(0.164)	0.085	(0.163)	
Size of workforce: 10 to 19	-0.126	(0.138)	-0.124	(0.138)	
Size of workforce: 20 to 49	-0.240 *	(0.136)	-0.237 *	(0.135)	
Size of workforce: 200 to 499	-0.151	(0.137)	-0.145	(0.137)	
Size of workforce: 500 to 999	-0.406 **	(0.165)	-0.398 **	(0.165)	
Size of workforce: 1,000 or more	-0.112	(0.137)	-0.103	(0.136)	
Monthly earnings < €1,000 (ref.)	-		-		
Monthly earnings €1,000 - €1500	-0.689 ***	(0.170)	-0.684 ***	(0.169)	
Monthly earnings €1500 - €2,000	-0.726 ***	(0.185)	-0.711 ***	(0.185)	
Monthly earnings €2,000 - €3,000	-0.517 ***	(0.194)	-0.495 **	(0.195)	

	POLS		Endogenity corrected IV approach	
	Estim. Val.	Stand. Dev.	Estim. Val.	Stand. Dev.
Monthly earnings > €3,000	-0.211	(0.230)	-0.183	(0.232)
Belongs to a trade union	-0.478 ***	(0.132)	-0.483 ***	(0.131)
Is a trade union sympathiser	-0.329 **	(0.167)	-0.334 **	(0.168)
The position held corresponds to the training received	1.241 ***	(0.098)	1.244 ***	(0.098)
Certain skills needed to do the work properly are lacking	-0.603 ***	(0.084)	-0.604 ***	(0.085)
Some skills are not used	-1.318 ***	(0.087)	-1.321 ***	(0.087)
Part-time work	-0.081	(0.130)	-0.084	(0.129)
Occasionally works on Saturdays	-0.059	(0.124)	-0.056	(0.123)
Usually works on Saturdays	-0.205	(0.144)	-0.203	(0.144)
Occasionally works on Sundays	0.210	(0.142)	0.204	(0.142)
Usually works on Sundays	0.311 *	(0.174)	0.307 *	(0.174)
Occasionally works in the evening	-0.071	(0.126)	-0.065	(0.125)
Usually works in the evening	-0.057	(0.159)	-0.049	(0.159)
Occasionally works at night	0.091	(0.189)	0.091	(0.188)
Usually works at night	0.008	(0.204)	-0.003	(0.203)
If any unexpected situations arise, I can't easily leave my work for a brief period of time	-0.486 ***	(0.106)	-0.488 ***	(0.106)
If any unexpected situations arise, I can't leave my work for a brief period of time	-0.613 ***	(0.178)	-0.615 ***	(0.178)
Works every day beyond the set hours	-0.121	(0.147)	-0.113	(0.147)
Often works beyond the set hours	-0.013	(0.113)	-0.011	(0.113)
Never works beyond the set hours	0.352 ***	(0.115)	0.350 ***	(0.114)
Does not know the hours they will have to work next month	-0.244 **	(0.114)	-0.242 **	(0.114)
Obliged to remain standing for long periods of time	0.436 ***	(0.109)	0.437 ***	(0.109)
Obliged to maintain an awkward or tiring posture over a long period	-0.584 ***	(0.107)	-0.584 ***	(0.107)
Obliged to undertake long or frequent journeys on foot	-0.006	(0.100)	-0.008	(0.100)
Works in a dirty environment	-0.848 ***	(0.106)	-0.850 ***	(0.106)
Obliged to make painful or tiring movements	-0.349 ***	(0.116)	-0.348 ***	(0.115)
Has to pay attention to visual or acoustic signals that are brief, unpredictable or difficult to detect	0.234 **	(0.109)	0.235 **	(0.109)
An error in your work might result in sanctions being taken against you (risk of losing your job, a significant reduction in your remuneration or income)	-0.756 ***	(0.102)	-0.754 ***	(0.102)
Pace of work imposed by the automatic operating speed of a machine	-0.345 *	(0.185)	-0.344 *	(0.184)

	POLS		Endogenity corrected IV approach		
	Estim. Val.	Stand. Dev.	Estim. Val.	Stand. Dev.	
The pace of work is imposed by checks or constant supervision (or at least daily checks) performed by line management	-0.695 ***	* (0.099)	-0.697 ***	(0.099)	
The pace of work is imposed by computerised monitoring	-0.396 ***	* (0.091)	-0.393 ***	(0.091)	
The work involves continually repeating the same series of motions or operations	-0.363 ***	* (0.097)	-0.368 ***	(0.096)	
Can briefly interrupt their work when they want to	0.290 ***	* (0.104)	0.294 ***	(0.104)	
Is entitled to make changes to the deadlines set	0.059	(0.088)	0.059	(0.088)	
Is asked to do an excessive amount of work	0.120	(0.120)	0.124	(0.120)	
Is in direct contact with the public	1.099 ***	* (0.108)	1.099 ***	(0.108)	
Making an error in the work might have serious consequences for the quality of the service or product	-0.059	(0.102)	-0.059	(0.101)	
Making an error in the work might result in hazardous consequences for the person themselves or for others	0.756 ***	* (0.101)	0.753 ***	(0.101)	
Has the opportunity to deal collectively with organisational issues	0.227 *	(0.122)	0.229 *	(0.122)	
My superior listens to me	1.517 ***	* (0.062)	1.519 ***	(0.062)	
Assistance available from superior where problems are encountered in carrying out a difficult task	0.651 ***	* (0.095)	0.650 ***	(0.095)	
Assistance available from work colleagues where problems are encountered in carrying out a difficult task	-0.225 *	(0.120)	-0.225 *	(0.119)	
Experiences tensions in their dealings with the public	-0.611 ***	* (0.101)	-0.613 ***	(0.101)	
Experiences tensions in their dealings with colleagues	-0.985 ***	* (0.104)	-0.986 ***	(0.104)	
Experiences tensions in their dealings with the persons they are supervising	-0.065	(0.136)	-0.061	(0.136)	
$\mathbb{R}^2$		0.35		0.35	
				26353	
N		26353		20333	

This table sets out the results of the estimation of the determinants of satisfaction (POLS and IV method). \*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.10. Weighted data. To obtain convergent estimators of the standard deviations (in brackets), we used the SAS

Source: DARES Working Conditions survey, 2013

surveyreg procedure.