

# **Controlling working crowds: The impact of digitalization on worker autonomy and monitoring across hierarchical levels**

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## **Description of data processing**

(for further details see variables and regression do-files)

### **I. Data access**

Our study is based on the so-called Linked Personnel Panel (LPP) which is a representative linked employer-employee data set on human resources, corporate culture and management practices in German establishments. We have access to the LPP data via on-site use at the research department "Establishments and Employment", where the data are stored. However, the LPP data set is proprietary, so we are legally prohibited to disclose or submit the data set used in our study.

Interested researchers have the following opportunities to get access to the LPP data. First, they can arrange an on-site visit at the research department "Establishments and Employment" of the IAB in Nuremberg, Germany. Here, both the original data as well as the programs (Stata do-files) used to run the regressions are deposited and can be used for replicating our estimation results. Second, the LPP data are available via on-site use at the Research Data Center (FDZ) of the German Federal Employment Agency (BA) at the IAB. There are several locations for on-site visits in Germany (Nuremberg, Berlin, Bremen, Dresden, Dusseldorf, Hanover, Mannheim) and the U.S. (Ann Arbor, Cornell, Berkeley, Harvard, Los Angeles, Princeton). After on-site use, the LPP data are also available via remote data access at the FDZ.

### **II. Variables list**

For our study, we used the following variables (codes are available in the variables do-file):

<b>Name in the Do-File</b>	<b>Name in the Paper</b>
extraversion1-extraversion3	Extraversion 1, 2, 3
conscientiousness1-conscientiousness3	Conscientiousness 1, 2, 3
neuroticism1-neuroticism3	Neuroticism 1, 2, 3
openness1-openness4	Openness 1, 2, 3, 4
agreeableness1-agreeableness3	Agreeableness 1, 2, 3
cculture1 cculture3 cculture5 cculture7	Understanding, trust, appreciation, discrimination
age2-age4	Age 25-39, Age 40-54, Age 55+
female	Female
fixed_term	Fixed-term contract
part_time	Part-time work
multitask	Multitasking
physical_demanding	Physical demanding task
bcw	Blue collar worker
hours_actual	Hours actually worked
shift	Shift work
risk	Risk tolerance
fair3	Fair treatment
german	German nationality
envy	Envy

compassion	Compassion
bad_conditions	Bad working conditions
commit1-commit6	Lifetime employment, importance, firm problems, affiliation, emotional commitment, part of the family
turnover	Turnover intention
t2	Dummy variable for wave 2
fsize1-fsize3	Firm size 50-99, firm size 100-249, firm size 250-499
sector2-sector5	Metal, electronics, vehicle manufacturing; trade, traffic, news; firm-related and financial services; information and communication, other services
region2-region4	Eastern Germany, Southern Germany, Western Germany
hr_level1	HR level
pfp	PFP
extra_pay	Extra payment
HR_staff	HR staff
independent	Independent firm
cost_leader	Cost leader
quality_leader	Quality leader
council	Council
skill_ls	Low skill
skill_hs	High skill
fixedterm	Fixed term
temps	Temps
parttime	Part time
apprentice	Apprentice
women	Women
midi	Midi
oneeurojob	One euro job
mini	Mini
interview	Interview
target	Target
reg_perf_eval	Perfeval
job_autonomy	Job Autonomy
ict	ICT
auto_digi	Autodigi
supervisor	Supervisor
wfh	Wfh

### III. Regressions

The regression codes for obtaining the results from our study are available in the [regression do-file](#).