Appendix

Description of micro datasets used

Russian Longitudinal Monitoring Survey (RLMS)

The RLMS was conducted with the support and assistance of the World Bank, the United States Agency for International Development (USAID), the National Science Foundation, the National Institute of Health, and the North Carolina Population Center.

The RLMS covers the period from 1992 to 2003, but the survey changed considerably throughout this period: in the first phase (from 1992 to 1994), the main RLMS accomplishment was the creation of the first national sample frame allowing surveys to be representative at national level. More recently, this sample frame has been extended to develop samples representative at the regional and oblast levels (RLMS 1998). For the second phase, covering the period 1994–2003, the emphasis changed from institution-building to providing timely, high-quality information. The survey's main unit of observation is the household. The RLMS covers primarily the European part of the Russian Federation, but the distribution of household size in the sample within urban and rural areas corresponds well to the figures from the 1989 census (for a detailed comparison of the 1989 census and the RLMS, see RLMS (1998)). At each round, data are collected on the household, each household member, and the residential community.

Households were selected on the basis of a multi-stage process, with the households being clustered into primary sampling units ("sites"). Although the target sample size was 4000 households, the number of households drawn into the second phase sample was 4728, in order to allow for a 15% non-response

rate. The household response rate in the beginning of the second phase of the RLMS exceeded 80%, and individual questionnaires were obtained from about 97% of the individuals listed in the household rosters.

This dataset lacks a true panel design, as households are not followed if they move from their dwelling, and likewise, individuals who leave a household are not followed. The effect of attrition is relatively modest and has been highest for the respondents from Moscow and St Petersburg.

The information is rich on income and expenditures of households, labour force participation, health conditions, and individual risk factors.

National Survey of Household Welfare and Program Participation

While the RLMS has the advantage of being repeated annually, which allows some comparison over time, the National Survey of Household Welfare and Program Participation (NOBUS) survey, so far only held once, in 2003, covers a far more comprehensive portion of the population. With a sample of about 44 500 households, it is representative both nationally and for 46 larger subjects of the Russian Federation. It captures differing aspects of household welfare and focuses on household access to social services. Its health measurement component, however, is small compared to the RLMS, so a direct comparison to the RLMS results is not possible.

Details of calculations on the costs of absenteeism

Table A.1 *Calculation for costs of absenteeism*

Year	*Gender*	*Annual average working days missed due to illness*	*Average annual wage (among all job holders)*	*Average annual wage (among those absent at least once)*	*GDP per capita (in current local currency units, in constant 2000 prices)*	*Average wage loss for a person who was absent the average number of days*	*Average production loss for a person who was absent the average number of days*	*Active population*	*Total income loss (billions)*	*Total production (GDP) loss (billions)*
2000	Male	10.8	26 268	24 576		777	1 480	36 639 000	28.48	54.24
	Female	9.24	15 648	15 864		396	1 266	33 822 000	13.40	42.83
	Total	**10.08**	**20 724**	**19 992**	**50 028**	**572**	**1 382**	**70 461 000**	**40.33**	**97.35**
2001	Male	9.48	32 501	33 994		844	1 373	36 788 000	31.05	50.52
	Female	10.92	20 335	20 046		608	1 582	34 402 000	20.93	54.42
	Total	**10.2**	**26 145**	**26 062**	**52 876**	**731**	**1 478**	**71 190 000**	**52.01**	**105.19**
2002	Male	8.64	37 448	37 929		886	1 318	36 937 000	32.74	48.70
	Female	10.32	23 891	25 146		675	1 575	34 982 000	23.63	55.09
	Total	**9.48**	**30 309**	**30 763**	**55 699**	**787**	**1 447**	**71 919 000**	**56.62**	**104.04**
2003	Male	9.6	40 514	36 851		1066	1 583	37 087 000	39.52	58.72
	Female	9.36	25 552	25 544		655	1 544	35 125 000	23.02	54.22
	Total	**9.48**	**32 503**	**30 570**	**60 195**	**844**	**1 563**	**72 212 000**	**60.96**	**112.90**
Sources:		RLMS	RLMS	RLMS	IMF					

Notes: We used the population average wage in the cost calculations since there were no systematic patterns when comparing population average wage and absentees' average wage; RLMS: Russian Longitudinal Monitoring Survey; IMF: International Monetary Fund; GDP: gross domestic product.

Detailed results on the impact of health on labour supply and productivity

Ordinary least squares (OLS) regressions

Tables A.2 and A.3 report estimates of four models, whose difference is the date of medical diagnosis of diabetes, heart attack, stroke, TB and hepatitis, which are the unique diseases for which the diagnosis date is available in our dataset. It reveals that lung, kidney and spinal disease reduce wage rate, as expected. Surprisingly, chronic lung disease increases labour supply. Recently diagnosed heart attack and TB reduce the wage rate, as expected. Hepatitis diagnosed very early reduces labour supply, while recently diagnosed TB increases labour supply. Indeed, respiratory and lung diseases (such as asthma and bronchitis) seem to have a positive effect on labour supply. A possible rationale for this paradox, which requires more research, is that individuals may seek to augment their revenue to compensate for the additional costs of medical care expenditures they incur.

Instrumental variables regression

The sample used is again that resulting from pooling rounds 9–12 of the RLMS.

Variables in the third column of box A are used as instruments for self-evaluated health status and missed days due to ill-health, respectively (the chosen date of diagnosis for the last five is between 10 and 5 years previously). Table A.5 and Table A.6 report estimates for both the logarithms of wage rate and labour supply, distinguishing by gender. Both indicators negatively affect wage rate and, on the contrary, they have no significant influence on labour supply. A reported good health status increases wage rate by 22% for women and by 18% for men. Similarly, a day missed reduces wage rate by 3.7% in the male subsample and by 5.5% among females.

The Sargan test of overidentification does not reject the hypothesis of exogeneity of the selected instruments. Although this result must be interpreted only as an indication of exogeneity, as the Sargan test has only little power, it supports the Bartel and Taubman (1979) assumption of exogeneity of the health conditions they used in their analysis.

Table A.2 *Independent variables used in the regression analysis (RLMS data)*

Variable	*Description*	*Instrumental variables**
Gender	Gender (male = 1)	
Age	Age	
age2	Age squared	
Highsc	High-school diploma	
Tecdp	Technical or medical diploma	
Insdp	Institute or university diploma	
Gradp	Doctoral degree	
Married	Married	
Tenure	Experience at current workplace	
tenure2	Experience at current workplace squared	
Pjemps	Number of employees in enterprise	
Ncat	Number of children under 7 years	
Private	Private sector	
region_2	Northern and North-western	
region_3	Central and Central Black-Earth	
region_4	Volga-Vaytski and Volga Basin	
region_5	North Caucasian	
region_6	Ural	
region_7	Western Siberian	
region_8	Eastern Siberian and Far Eastern	
Urban	Urban area	
Occupation_2	Professionals (ISCO-88 code)	
Occupation_3	Technicians and associate professionals (ISCO-88 code)	
Occupation_4	Clerks (ISCO-88 code)	
Occupation_5	Service workers and market workers (ISCO-88 code)	
Occupation_6	Skilled agricultural (ISCO-88 code)	
Occupation_7	Craft and related trades (ISCO-88 code)	
Occupation_8	Plant and machine operators and assemblers (ISCO-88 code)	
Occupation_9	Elementary (unskilled) occupations (ISCO-88 code)	
round_10	Year 2001	
round_11	Year 2002	
round_12	Year 2003	
Cheart	Chronic heart disease	X
Clungs	Chronic lung disease	X
Cliver	Chronic liver disease	X
Ckidny	Chronic kidney disease	X
Cgi	Chronic stomach disease	X
Spine	Chronic spine disease	X
Cother	Other chronic diseases	X
diabetes_10	Diabetes diagnosed between 10 and 5 years ago	X
diabetes_20	Diabetes diagnosed between 20 and 10 years ago	
diabetes_5	Diabetes diagnosed less than 5 years ago	
diabetes_b20	Diabetes diagnosed more than 20 years ago	
heart_10	Heart attack diagnosed between 10 and 5 years ago	X
heart_20	Heart attack diagnosed between 20 and 10 years ago	
heart_5	Heart attack diagnosed less than 5 years ago	
heart_b20	Heart attack diagnosed more than 20 years ago	
hepatitis_10	Hepatitis diagnosed between 10 and 5 years ago	X
hepatitis_20	Hepatitis diagnosed between 20 and 10 years ago	
hepatitis_5	Hepatitis diagnosed less than 5 years ago	
hepatitis_b20	Hepatitis diagnosed more than 20 years ago	
stroke_10	Stroke diagnosed between 10 and 5 years ago	X
stroke_20	Stroke diagnosed between 20 and 10 years ago	
stroke_5	Stroke diagnosed less than 5 years ago	
stroke_b20	Stroke diagnosed more than 20 years ago	
tbc_10	Tuberculosis diagnosed between 10 and 5 years ago	X
tbc_20	Tuberculosis diagnosed between 20 and 10 years ago	
tbc_5	Tuberculosis diagnosed less than 5 years ago	
tbc_b20	Tuberculosis diagnosed more than 20 years ago	
healthGOOD	Self-reported good health status	
misseddays	Missed work days due to ill-health	
school_1	High-school diploma completed before 2000	
school_2	Technical or medical diploma completed before 2000	
school_3	Institute or university diploma completed before 2000	
school_4	Doctoral degree completed before 2000	

Note: * With the RLMS data instrumental variables have only been used in the regressions summarized in Table A.5 and Table A.6.

Table A.3 *OLS – dependent variable: log hourly wage rate (2000 prices)*

	The disease was diagnosed…			
Variable	*20 years earlier*	*10–20 years earlier*	*5–10 years earlier*	*0–5 years earlier*
gender	.30254066***	.30310181***	.3024037***	.30367693***
age	.03272136***	.03260822***	.03273228***	.03251867***
age2	-.00041325***	-.00041165***	-.00041368***	-.0004103***
highsc	.07731209***	.07729698***	.0775283***	.07760015***
tecdp	.08662943***	.08694422***	.08624272***	.08602663***
insdp	.32191213***	.32172709***	.32240742***	.32086648***
gradp	-.07311596	-.07601234	-.07762188	-.07221849
married	.04515979***	.04471361***	.04424292***	.04513566***
tenure	-.00126128	-.00124136	-.00126923	-.00110397
tenure2	.00011182*	.00011086*	.00011178*	.0001044*
pjemps	9.158e-06***	9.184e-06***	9.161e-06***	9.201e-06***
ncat	-.04025733***	-.04012284***	-.03946076***	-.04009372***
private	.17656016***	.17648686***	.17705347***	.17630873***
region_2	-.02601835	-.02536182	-.0264554	-.0255168
region_3	-.46472316***	-.46428774***	-.46488513***	-.46488793***
region_4	-.71409733***	-.71366399***	-.7137759***	-.71324021***
region_5	-.61041382***	-.60970428***	-.61063961***	-.60931095***
region_6	-.48056355***	-.48006629***	-.48088991***	-.48145873***
region_7	-.48499262***	-.48461688***	-.48570588***	-.48480409***
region_8	-.29421497***	-.29363089***	-.29479044***	-.29217805***
urban	.43861682***	.43867082***	.4389986***	.44019666***
occupation_2	-.01549473	-.0169319	-.01764095	-.01722858
occupation_3	-.1018942***	-.10313616***	-.10426042***	-.102774***
occupation_4	-.16137001***	-.16203158***	-.16283756***	-.16217807***
occupation_5	-.41726362***	-.41845074***	-.41930993***	-.41848629***
occupation_6	-.46935269***	-.47401677***	-.47384018***	-.47511778***
occupation_7	-.04230204	-.04379586	-.04411402	-.04298466
occupation_8	-.11553389***	-.11695315***	-.11749264***	-.11677098***
occupation_9	-.48967173***	-.48989482***	-.49126905***	-.49107733***
round_10	.17638925***	.17525387***	.17556241***	.17504897***
round_11	.38113833***	.38000061***	.38030253***	.37951903***
round_12	.47109966***	.46966934***	.47030324***	.46988307***
cheart	-.02067898	-.01857795	-.01968821	-.01338115
clungs	-.08023211**	-.07860568**	-.07878113**	-.07764093**
cliver	-.00480458	-.00782106	-.00376398	-.01182401
ckidny	-.04546527*	-.04487214*	-.04552355*	-.0444479*
cgi	.01611436	.01571097	.01533843	.01483718
cspine	-.03773294**	-.03885295**	-.0386692**	-.03875688**
cother	-.02434006	-.02327219	-.02333522	-.02540852
diabetes_b~0	.08708819			
heart_b20	–			
stroke_b20	-.12886329			
tbc_b20	-.11782447			
hepatitis_b20	-.02362581			
diabetes_20		-.08324869		
heart_20		-.06870232		
stroke_20		-.23865608		
tbc_20		-.04481312		
hepatitis_20		.00727449		
diabetes_10			-.03340999	
heart_10			.0153402	
stroke_10			-.2775952	
tbc_10			-.12228027	
hepatitis_10			-.04278534	
diabetes_5				.05831311
Heart_5				-.13975016*
Stroke_5				-.10652745
tbc_5				-.23336728**
hepatitis_5				.10332314
Constant	1.2241776***	1.2269543***	1.226739***	1.2266473***
R2	.3803084	.38032227	.38038093	.3806654
N	11297	11297	11297	11297

Notes: * p<.1; ** p<.05; *** p<.01.

Table A.4 *OLS – dependent variable: log weekly hours*

	The disease was diagnosed…			
Variable	*20 years earlier*	*10–20 years earlier*	*5–10 years earlier*	*0–5 years earlier*
gender	.1082822***	.10816178***	.10869426***	.10820324***
age	.01699662***	.01691379***	.01676215***	.01688689***
age2	-.00020535***	-.00020482***	-.00020268***	-.00020421***
highsc	-.01192034	-.01158593	-.01202024	-.01188906
tecdp	.00299955	.0030822	.00286354	.00316107
insdp	.00574539	.00556812	.00571997	.00574958
gradp	.01750542	.01471094	.01609397	.01712725
married	-.02446514***	-.02487114***	-.02475416***	-.02468505***
tenure	-.00206881**	-.00206111**	-.00207175**	-.00207253**
tenure2	.00005766**	.00005736**	.0000583**	.00005743**
pjemps	-8.690e-07***	-8.490e-07***	-8.641e-07***	-8.489e-07***
ncat	.00040164	.00039929	.00030107	.00046486
private	.07633224***	.07656981***	.07671271***	.07617914***
region_2	.06115134***	.06051219***	.0609761***	.06085042***
region_3	.02044861*	.02015783*	.02036473*	.02046827*
region_4	.03674088***	.03693256***	.03682934***	.03713913***
region_5	.07975371***	.07938687***	.07960869***	.08008555***
region_6	.01340273	.01321734	.01336299	.01393258
region_7	.04322431***	.04314116***	.04295671***	.04327367***
region_8	.05036055***	.05051396***	.05041537***	.05130143***
urban	.02271182***	.02296056***	.02270854***	.02260605***
occupation_2	-.17578267***	-.17522752***	-.17577442***	-.1761433***
occupation_3	-.07078628***	-.07051406***	-.07101583***	-.07137268***
occupation_4	-.0686374***	-.0680209***	-.06813237***	-.06915404***
occupation_5	.08926562***	.0897478***	.08947398***	.08936801***
occupation_6	-.02700664	-.02734797	-.02807609	-.02808858
occupation_7	-.10144504***	-.10061856***	-.10121411***	-.10116903***
occupation_8	-.01019046	-.00971794	-.0104076	-.01010831
occupation_9	-.12541047***	-.12508277***	-.12513555***	-.12552281***
round_10	.0042041	.00258998	.00310756	.00281578
round_11	-.00524675	-.00687934	-.00644211	-.0065833
round_12	-.00674471	-.0082841	-.00784437	-.00816691
cheart	-.01282462	-.0135959	-.0118314	-.01302344
clungs	.03941723***	.03918327***	.04054747***	.03694418***
cliver	.01767289*	.01477509	.01618572	.01378418
ckidny	.0009254	.00122756	.00160304	.00111697
cgi	-.00062025	-.00079791	-.00106807	-.00058534
cspine	-.00464508	-.00489828	-.00504277	-.00521482
cother	-.00086547	-.00073189	-.00019993	-.00135145
diabetes_b20	-.03719927			
heart_b20	–			
stroke_b20	-.03803866			
tbc_b20	-.01698457			
hepatitis_b20	-.02917758**			
diabetes_20		-.02750776		
heart_20		.05839574		
stroke_20		.24507382*		
tbc_20		.01060056		
hepatitis_20		.00925964		
diabetes_10			-.04903766	
heart_10			-.01289033	
stroke_10			-.03361457	
tbc_10			-.11833582	
hepatitis_10			-.02558451	
diabetes_5				.02017598
heart_5				.00539258
stroke_5				-.01842532
tbc_5				.19298307***
hepatitis_5				.01203015
constant	4.8475018***	4.8493382***	4.8524877***	4.8500274***
R2	.14135195	.14153691	.14132912	.14158014
N	12009	12009	12009	12009

Notes: * p<.1; ** p<.05; *** p<.01.

Table A.5 *RLMS IV regression results – dependent variables: log deflated wage rate (2000 prices) and log weekly worked hours (using self-reported health)*

Variable	*WRfullsample*	*WRmale*	*WRfemale*	*LSfullsample*	*LSmale*	*LSfemale*
healthGOOD	.20261634***	.1806543**	.22419709***	-.01000299	.02130741	-.02027266
Gender	.27585464***			.1101072***		
Age	.03614345***	.02352038***	.04389459***	.01683673***	.01700254***	.01448804***
age2	-.00043666***	-.00030836***	-.00051943***	-.00020515***	-.00020695***	-.00017566***
Highsc	.07089832***	.07871912***	.04943325*	-.01161474	-.01891072**	-.00217997
Tecdp	.08644842***	.10692356***	.06691908***	.0033794	-.01350005	.01483595*
Insdp	.31426173***	.2392171***	.34637742***	.00540103	.02079802*	-.00123836
Gradp	-.08415951	-.04194061	-.10088591	.01388915	-.02216501	.04175885
Married	.05141418***	.15022216***	.01163241	-.02538585***	.01937082*	-.03886909***
Tenure	-.00081092	-.00546021*	.00218432	-.00211222**	-.00426801***	-.00063797
tenure2	.00009809	.00019499**	.0000289	.00005859**	.00011212***	.00001423
Pjemps	8.804e-06***	7.632e-06***	9.004e-06***	-8.013e-07	-9.378e-07	-2.854e-07
Ncat	-.04521146***	.00215761	-.10828932***	.00057746	.01806025**	-.02033957**
Private	.17277442***	.09955215***	.24806507***	.07645701***	.06493953***	.07887115***
region_2	-.0133603	.09148693*	-.0958643**	.05869207***	.06096713***	.05765205***
region_3	-.44289043***	-.40460824***	-.48610782***	.01849206*	.01404615	.01895777
region_4	-.70229557***	-.66428493***	-.7348911***	.03537858***	.01953694	.04064509***
region_5	-.61434647***	-.53340948***	-.67970519***	.07870559***	.05313381***	.09620142***
region_6	-.45873715***	-.33987848***	-.55962049***	.01230895	-.01643169	.03275026**
region_7	-.46645139***	-.45783094***	-.47691641***	.04152007***	.08148437***	.00841795
region_8	-.2853641***	-.2289622***	-.32352706***	.0502703***	.06153782***	.03448115**
Urban	.43761558***	.62312852***	.2831659***	.02274333***	-.01505292*	.04760405***
Occupation_2	-.01146613	-.02094595	-.00256181	-.17491303***	-.1825607***	-.17610764***
Occupation_3	-.09973417***	-.04334927	-.10912741***	-.07085586***	-.0616262***	-.07649988***
Occupation_4	-.15451163***	-.03652103	-.16638103***	-.06779682***	-.05827246*	-.06896023***
Occupation_5	-.41975459***	-.31318111***	-.48718413***	.08981792***	.0592768***	.10308978***
Occupation_6	-.47198821***	-.37263434***	-.84237456***	-.02883948	-.04088518	-.03736733
Occupation_7	-.03552898	-.05105415	-.05908826	-.10097471***	-.10827515***	-.02649565
Occupation_8	-.10721544***	-.12569034***	-.04698364	-.01031805	-.01859227	.00006369
Occupation_9	-.48071172***	-.55627943***	-.42828469***	-.12501984***	-.0406391**	-.18950645***
round_10	.17584632***	.20261341***	.15252564***	.00302838	-.0035675	.00816274
round_11	.37643375***	.35788906***	.39169577***	-.00642209	-.00452699	-.00850983
round_12	.46681949***	.49302316***	.44638437***	-.00806578	-.01231146	-.00638784
Constant	1.0524022***	1.3785507***	1.0700368***	4.8578013***	4.9607769***	4.8823667***
R2	.38005142	.37336365	.37954554	.14009513	.10294687	.13476493
N	11 297	5 081	6 216	12 009	5 425	6 584
Sargan	13.573047	11.927898	12.401589	17.049472	13.678117	19.081833
sargan p	.25752479	.36908726	.33422615	.10642072	.25131896	.0596403

Notes: * p<.1; ** p<.05; *** p<.01; health measure: self-reported health status.

Table A.6 *RLMS IV regression results – dependent variables: log deflated wage rate (2000 prices) and log weekly worked hours (using work-days missed owing to illness)*

Variable	*WRfullsample*	*WRmale*	*WRfemale*	*LSfullsample*	*LSmale*	*LSfemale*
Misseddays	-.05380539***	-.03690035*	-.05546552***	.00821319	-.00709594	.01402738*
Gender	.29772294***			.10998022***		
Age	.03114485***	.01850996***	.04046707***	.01721108***	.01632242***	.0147364***
age2	-.00040003***	-.00026616***	-.00050769***	-.00020857***	-.00020076***	-.00017564***
Highsc	.0764457***	.08810853***	.04997693*	-.01159807	-.01808813*	-.00146113
Tecdp	.0866504***	.1073604***	.06226547***	.0031956	-.01300065	.01608852*
Insdp	.31530499***	.24677968***	.33882159***	.00571132	.02204791*	.00141949
Gradp	-.0787445	-.036784	-.08761471	.01393563	-.02159879	.04096062
Married	.05356679***	.15083713***	.01173622	-.02579732***	.01930354*	-.03936297***
Tenure	-.00122834	-.00524941	.00082434	-.00211588**	-.00420651***	-.00045703
tenure2	.00011241*	.00019362**	.00006644	.00005821**	.00011106***	8.823e-06
Pjemps	9.280e-06***	8.407e-06***	8.816e-06***	-8.500e-07	-8.565e-07	-3.074e-07
Ncat	-.04023962***	.00362648	-.09662369***	.000693	.01770139**	-.02175956***
Private	.16724902***	.09387912***	.24856076***	.07756117***	.06402571***	.08025452***
region_2	-.01474598	.09875703**	-.11009453***	.0577796***	.06201305***	.057782***
region_3	-.4558448***	-.42070126***	-.49921143***	.01890107*	.01165807	.01929232
region_4	-.71430958***	-.66690059***	-.75631568***	.03665627***	.01863438	.04386867***
region_5	-.61081329***	-.5267249***	-.68255719***	.07879792***	.05402857***	.09821436***
region_6	-.47894979***	-.34875802***	-.59416784***	.01363934	-.0175098	.03771347**
region_7	-.48772765***	-.46787374***	-.51264077***	.04312625***	.08002961***	.01396134
region_8	-.29421679***	-.23611033***	-.33333955***	.05040509***	.06036483***	.03431264**
Urban	.44175078***	.62699818***	.28492593***	.02193919***	-.01431369	.04659559***
Occupation_2	-.027564	-.04925416	-.00844466	-.17300785***	-.18745121***	-.1760129***
Occupation_3	-.12230053***	-.05608059	-.1344305***	-.06794825***	-.06362624***	-.07169013***
Occupation_4	-.17091698***	-.0763228	-.18042962***	-.06618904***	-.06534309**	-.0677314***
Occupation_5	-.43565594***	-.2985637***	-.52124317***	.09266941***	.06085781***	.11050034***
Occupation_6	-.48343043***	-.38829406***	-.7552105***	-.02690202	-.04387496	-.05866459
Occupation_7	-.04122031	-.05320954	-.07698807	-.10081479***	-.10856194***	-.02472499
Occupation_8	-.12073531***	-.13498605***	-.0576109	-.00918769	-.01997502	.00046696
Occupation_9	-.50227005***	-.56088127***	-.46485105***	-.12261359***	-.04186336**	-.18370621***
round_10	.17854361***	.20508354***	.15430605***	.00259199	-.0038077	.00628939
round_11	.38042079***	.36002555***	.39748229***	-.00650397	-.00496189	-.00990774
round_12	.46644317***	.49288934***	.44663449***	-.00755301	-.01312552	-.00643482
Constant	1.3008961***	1.6037212***	1.3262024***	4.8369351***	4.9923983***	4.8495011***
R2	.32233376	.34607243	.31337964	.13220628	.09785919	.11655025
N	11 297	5 081	6 216	12 009	5 425	6 584
Sargan	10.582327	13.854043	8.4962567	15.267294	13.358761	15.893294
sargan p	.47888791	.24117537	.66828023	.17058417	.27052497	.14513876

Notes: * p<.1; ** p<.05; *** p<.01; health measure: missed days due to ill-health.

Table A.7 *NOBUS IV regression results – dependent variable: log monthly wage rate*

Variable	*Full*	*Male*	*Female*
healthGOOD	.23073613***	.29161317***	.18554934***
Age	.00194805	.00285506	.00034706
Male	.2827457***		
Children	-.0186142	.01235114	-.05409407***
Private	.04593329**	-.02217283	.16266443***
schooling2	.17295232***	.18103981***	.14660409***
schooling3	.42042849***	.40874823***	.44509322***
experience 2	.15488742***	.21468458***	.09025464**
experience 3	.27605528***	.33826986***	.19469783***
experience 4	.29482454***	.3339668***	.24849332***
experience 5	.30288889***	.28737294***	.36047057***
		[98 omitted regional dummies]	
Urban	.36058887***	.45050028***	.20029591***
Constant	6.3669247***	6.468474***	6.7210779***
R2	.35884352	.34130484	.41305857
N	4139	2410	1729
Sargan	2.3231368	4.2421652	.15670567
sargan p	.12746276	.03943185	.69220781

Notes: * p<.1; ** p<.05; *** p<.01; healthGOOD instrumented by father and mother health status.
Source: NOBUS Dataset round 1: sample of jobholders whose family includes the parents.

Table A.8 *NOBUS IV regression results – dependent variable: log weekly worked hours*

Variable	*Full*	*Male*	*Female*
healthGOOD	.03167153	.03403846	.02639951
Age	.00021789	-.00028859	.00090962
Male	.04823373***		
Children	.01161265**	.01740233**	.00588029
Private	.04238258***	.02611874**	.06846073***
schooling 2	-.00202497	-.00121966	.0023968
schooling 3	-.0291298***	-.02807691*	-.02598168
experience 2	.02950427**	.03812825**	.01756524
experience 3	.04732545***	.05443608***	.04033184*
experience 4	.04869325***	.06112273***	.03543496
experience 5	.04743424**	.0745132***	.01398805
		[98 omitted regional dummies]	
Urban	.00093956	-.01060702	.02084233
Constant	3.4491043***	3.4881173***	3.460679***
R2	.0451653	.04935113	.07885763
N	4488	2655	1833
Sargan	2.9013272	1.909446	.56854037
sargan p	.08850665	.16702481	.45083952

Notes: * p<.1; ** p<.05; *** p<.01; healthGOOD instrumented by father and mother health status.
Source: NOBUS Dataset round 1: Sample of jobholders whose family includes the parents.

Panel regressions

Table A.9 *PANEL – dependent variable: log deflated wage rate (2000 prices): males*

Variable	*OLS*	*RE*	*FE*	*HT*	*AM*
Age	.02117373*	.03060971*	.03371538	.01813034	.0234186
age2	-.02543067**	-.03546528*	-.02382196	-.01311323	-.0213325
Tenure	-.00772551	-.01517426**	-.0206151***	-.01909465**	-.01806072***
tenure2	.01210427	.04237933**	.06945062***	.06422693***	.0584895***
Pjemps	9.530e-06***	9.788e-06**	9.429e-06	.0000118**	.00001127**
Private	.04570286	.03499996	.03313663	.0309431	.02631349
Married	.14033812**	-.03676585	-.22294367**	-.20775497**	-.15196781*
Ncat	-.05326126	-.01793909	.00538132	.01683112	-.00097233
healthGOOD	.13197755***	.09158229***	.07569402**	.07786367**	.07551662**
Occupation_2	-.01218971	.00225306	.0043603	.00617929	.00224176
Occupation_3	-.05167111	.02008562	.05246994	.05219877	.05232641
occupation_4	-.19906217	.2181705	.39427491**	.39282628**	.37307211**
occupation_5	-.24020787**	-.02854871	.125755	.13997179	.11371703
occupation_6	-.94112994**	-.17614337	.10702769	.10056151	.0679691
occupation_7	.03866432	.10132112	.12744936	.12405609	.11974571
occupation_8	-.0429258	.00489442	.03180318	.03342481	.02176699
occupation_9	-.57218885***	-.28322658***	-.07798007	-.07972034	-.10124062
region_2	.27892274**	.29314799	–	.25565869	.26318595
region_3	-.29012799***	-.2805072*	–	-.41834883	-.32384047
region_4	-.48320866***	-.50339542***	–	-.62553843**	-.56938138**
region_5	-.39498039***	-.40471495**	–	-.37981395	-.37930179
region_6	-.13100975	-.13158781	–	-.26354191	-.16251081
region_7	-.65294516***	-.67053312***	–	-.70585965**	-.72745543***
region_8	-.08770838	-.05826851	–	-.12961441	-.09358942
urban	.53909976***	.52193122***	–	.32506656	.39969081***
round_10	.168135***	.16313149***	.14594161***	.15260468***	.15498627***
round_11	.38907013***	.37849082***	.34758368***	.36074622***	.36456176***
round_12	.49593055***	.485547***	.44142583***	.46017735***	.46584738***
school_1	.25757494***	.32212736***	–	.81691085	.83514246**
school_2	.40336141***	.49213283***	–	1.9765633**	1.2196359***
school_3	.63699184***	.7444805***	–	1.4499061	1.3256559***
school_4	.66247112***	.72739066***	–	.17519122	.57196294
constant	1.160447***	1.0129677**	1.3497267	.74809819	.74063887
N	1 096	1 096	1 096	1 096	1 096

Notes: * p<.1; ** p<.05; *** p<.01; Hausman test fixed effects vs random effect: chi2(20) = 40.65; Prob>chi2 = 0.0041; Hausman test fixed effects vs Hausman-Taylor: chi2(19) = 1.12; Prob>chi2 = 1.0000; Hausman test Hausman-Taylor vs Amemiya-Macurdy: chi2(19) = 3.08; Prob>chi2 = 1.0000; FE: fixed effects; OLS: ordinary least squares; RE: random effects; HT: Hausman-Taylor; AM: Amemiya-Macurdy.

Table A.10 *PANEL – dependent variable: log weekly worked hours: males*

Variable	*OLS*	*RE*	*FE*	*HT*	*AM*
Age	.00968936**	.01011673	.0014124	.00773793	.00550749
age2	-.01130532**	-.01229069*	-.00820846	-.01072686	-.0061599
Tenure	-.00395814*	-.00350348	-.00269069	-.0029343	-.00371731
tenure2	.01254271*	.01316617	.01322701	.01425271	.0161937*
Pjemps	-1.109e-06	-5.444e-07	1.023e-06	2.967e-07	-1.640e-07
Private	.05022197***	.02641639	.00345284	.00441571	.00623633
Married	.09359559***	.07396736**	.04708204	.04284235	.05958309
Ncat	.01429715	.02212276	.02753488	.02416649	.03011741
healthGOOD	-.01965858	-.01468967	-.0137866	-.01445042	-.0149034
Occupation_2	-.21092642***	-.12738774***	-.04395166	-.04416019	-.04812057
Occupation_3	-.1103376***	-.10051006***	-.09634389***	-.09603576***	-.0996362***
Occupation_4	-.08852414	-.17208368***	-.20984353***	-.20838166***	-.20470985***
Occupation_5	.03435495	.02383147	.01944352	.0153265	.01634753
Occupation_6	-.00552382	-.04861333	-.0707335	-.06588934	-.05051898
Occupation_7	-.17901824***	-.1455056***	-.11574215***	-.11468832***	-.11785297***
Occupation_8	-.09831434***	-.08156896**	-.06571441	-.06633536	-.0683112
Occupation_9	-.03111297	-.01936531	-.01017347	-.00940763	-.00781331
region_2	.07384698	.07319388	–	.08981761	.06052615
region_3	-.0642961*	-.06370392	–	-.07252672	-.07501232
region_4	-.07546378*	-.07729309	–	-.10336157	-.08865404
region_5	-.03169123	-.02565908	–	.03149358	-.04685389
region_6	-.08640749**	-.08861418	–	-.08514215	-.11174203
region_7	-.0443195	-.04286526	–	-.04661855	-.03856058
region_8	-.06315885	-.07427061	–	-.11929904	-.07699556
Urban	-.01937896	-.01609842	–	-.07301517	-.01544788
round_10	.00777308	.01059797	.01816888	.0139167	.01233232
round_11	-.00697861	-.00330935	.00917258	.00074844	-.00239133
round_12	-.00645034	-.00263858	.01457219	.00227273	-.00210441
school_1	-.05903512**	-.0635665	–	.12727169	-.14966983
school_2	-.08106482***	-.08653917*	–	.22689688	-.03809073
school_3	-.05420356	-.0688878	–	.3848647	-.24634658
school_4	-.07648919	-.14565492	–	.39316961	-.92683147
Constant	5.2020154***	5.1969917***	5.3382847***	5.0510247***	5.3499498***
N	1 096	1 096	1 096	1 096	1 096

Notes: * p<.1; ** p<.05; *** p<.01; Hausman test fixed effects vs random effect: chi2(20)= 28.21; Prob>chi2 = 0.1046; Hausman test fixed effects vs Hausman-Taylor: chi2(19)= 0.55; Prob>chi2 = 1.0000; Hausman test Hausman-Taylor vs Amemiya-Macurdy: chi2(19) = 1.71; Prob>chi2 = 1.0000; FE: fixed effects; OLS: ordinary least squares; RE: random effects; HT: Hausman-Taylor; AM: Amemiya-Macurdy.

Table A.11 *PANEL – dependent variable: log deflated wage rate (2000 prices): females*

Variable	*OLS*	*RE*	*FE*	*HT*	*AM*
Age	.04884346***	.06736967***	.10066973***	.10790077***	.10325259***
age2	-.05421362***	-.07580477***	-.15605471***	-.15072374***	-.13079675***
tenure	-.00005831	-.00346258	-.00820986	-.00729327	-.00662808
tenure2	-.00103402	.00719763	.02147504	.01986644	.01643053
pjemps	.00001359***	.00001239***	-5.603e-06	1.181e-06	1.233e-06
private	.22376717***	.072317**	-.01437716	-.0136186	-.01310365
married	.00028125	.00738042	.01341194	.01071813	.01188477
ncat	-.10801699***	-.07377408**	-.04957205	-.05391545	-.05380167
healthGOOD	.00899523	.03121741	.02602269	.02761743	.02923847
occupation_2	.05577093	.07850739	.06758284	.06643888	.06439402
occupation_3	-.0153171	.02146124	.03148909	.03083616	.03104208
occupation_4	-.11040535*	-.06521419	-.04835037	-.04741679	-.04775724
occupation_5	-.54344458***	-.2801505***	.01557992	.02031464	.01952723
occupation_7	.08008339	.06526647	.00884341	.01068766	.01395186
occupation_8	-.05201295	-.03782227	-.07510576	-.06741964	-.0661714
occupation_9	-.45957353***	-.20444463**	.09278365	.09481375	.09614351
region_2	-.13999192*	-.20911144	–	-.48590165	-.34880907
region_3	-.50231503***	-.53116243***	–	-.45795033	-.53031251
region_4	-.74096226***	-.77493104***	–	-.89981922**	-.873309**
region_5	-.63540426***	-.69525462***	–	-.6915516	-.78563166*
region_6	-.5473698***	-.57912027***	–	-.78280566	-.71864947*
region_7	-.62834388***	-.66565366***	–	-.90982369	-.80104975*
region_8	-.37340449***	-.43559004***	–	-.56746261	-.56762899
urban	.15423442***	.18812914***	–	.36136134	.25022075
round_10	.18149427***	.19284666***	.2380016***	.22420629***	.21243407***
round_11	.45971719***	.47197908***	.55111916***	.52550048***	.50231554***
round_12	.51680043***	.53104055***	.64696711***	.60956004***	.5742841***
school_1	.19448843**	.18916976	–	-6.0365962	-1.5936188
school_2	.25540653***	.30060589*	–	-6.093138	-1.2300934
school_3	.57598761***	.6274978***	–	-4.4909463	-.75936396
school_4	.681436***	.74557585***	–	-.8708852	1.1328886
Constant	.84034209***	.41563824	.38980734	5.8148068	1.4537398
N	1 904	1 904	1 904	1 904	1 904

Notes: * p<.1; ** p<.05; *** p<.01; Hausman test fixed effects vs random effect: chi2(20) = 64.56; Prob>chi2 = 0.0000; Hausman test fixed effects vs Hausman-Taylor: chi2(19) = 2.23; Prob>chi2 = 1.0000; Hausman test Hausman-Taylor vs Amemiya-Macurdy: chi2(19) = 2.39; Prob>chi2 = 1.0000; FE: fixed effects; OLS: ordinary least squares; RE: random effects; HT: Hausman-Taylor; AM: Amemiya-Macurdy.

Table A.12 *PANEL – dependent variable: log weekly worked hours: females*

Variable	*OLS*	*RE*	*FE*	*HT*	*AM*
Age	.01405474***	.00713686	-.02876607**	-.02768314**	-.02504998**
age2	-.01520261***	-.00682048	.04564225***	.04468031***	.03637539***
tenure	.00018417	.0015545	.00491668*	.0046434*	.00428144*
tenure2	-.00177468	-.00700912	-.01839697**	-.01760554*	-.0160395**
pjemps	-7.685e-07	-2.912e-07	-2.633e-06	-2.617e-06	-2.063e-06
private	.0723087***	.02815004*	-.00652035	-.00634699	-.00584964
married	-.06523011***	-.05414285***	-.01885375	-.01718639	-.02338578
ncat	-.04694642***	-.05493409***	-.06310345***	-.06328587***	-.06176603***
healthGOOD	-.01529577	-.02104664	-.02394817	-.02400828	-.02430819*
occupation_2	-.13872762***	-.07864605***	-.01027135	-.01049274	-.01060721
occupation_3	-.04832293**	-.02975507	-.02232382	-.02192721	-.02245031
occupation_4	.00178738	.01370745	-.01396924	-.01365074	-.01291123
occupation_5	.20324933***	.1690263***	.04756556	.04767363	.04907036
occupation_7	.00249755	.02887341	.02006936	.01969135	.01862799
occupation_8	.06178278**	.07571579**	.0622016	.06197632	.06119144
occupation_9	-.06500797**	-.05805535	-.11941641**	-.11816436**	-.11771333***
region_2	.04269644	.03478438	–	.14238722	.06589317
region_3	.00976103	.00053723	–	-.01808684	-.00896455
region_4	.05898428**	.05603467	–	.24275572	.09263906
region_5	.08703557***	.07217828	–	.19255138	.0737897
region_6	.01526735	.00665344	–	.26225193	.07547088
region_7	-.02668769	-.02780075	–	.2432143	.03633142
region_8	.0230401	.02041398	–	.21246341	.07272393
urban	.06394156***	.06786983***	–	.01321326	.07288475
round_10	-.00400421	-.00251684	-.00893178	-.00912039	-.004995
round_11	-.0074286	-.00476587	-.01726122	-.01767266	-.00950599
round_12	-.01834118	-.01732908	-.0406428*	-.04128489*	-.0286993*
school_1	.21837139***	.20248681***	–	5.6885155	.99684116
school_2	.2593469***	.23333548***	–	4.8112981*	.91200172
school_3	.2436505***	.194317***	–	5.1919824	.7156517
school_4	.298923***	.23065273**	–	2.1060542	-.56722012
constant	4.6019202***	4.7393288***	5.5207691***	.27965245	4.5953589***
N	1 904	1 904	1 904	1 904	1 904

Notes: * p<.1; ** p<.05; *** p<.01; Hausman test fixed effects vs random effect: chi2(20) = 59.37; Prob>chi2 = 0.0000; Hausman test fixed effects vs Hausman-Taylor: chi2(19) = 0.60; Prob>chi2 = 1.0000; Hausman test Hausman-Taylor vs Amemiya-Macurdy: chi2(19) = 2.47; Prob>chi2 = 1.0000; FE: fixed effects; OLS: ordinary least squares; RE: random effects; HT: Hausman-Taylor; AM: Amemiya-Macurdy.

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