

# **Examining the Relationship Between Digital Transformation and Work Quality: Substitution Potential and Work Exposure in Gender-Specific Occupations**

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**Online-Appendix**

**Table A1: Indicator values by occupation**

Code	Name	Requirement level	Gender-specific occupation	Substitution potential	Physical work exposure	Psycho-social work exposure
1111	Occupations in farming	unskilled/semi-skilled	male-dominated	0.50	6	3
1112		specialist	male-dominated	0.58	6	3
1113		complex specialist	male-dominated	0.35	6	3
1114		highly complex	male-dominated	0.23	6	3
1121	Occupations in animal husbandry	unskilled/semi-skilled	male-dominated	0.27	10	8
1122		specialist	gender-integrated	0.36	10	8
1123		complex specialist	male-dominated	0.18	10	8
1151	Occupations in animal care	unskilled/semi-skilled	gender-integrated	0.15	10	4
1152		specialist	gender-integrated	0.03	10	4
1163	Occupations in vini- and viticulture	complex specialist	male-dominated	0.54	6	5
1171	Occupations in forestry, hunting and landscape preservation	unskilled/semi-skilled	male-dominated	0.21	10	1
1172		specialist	male-dominated	0.19	10	1
1173		complex specialist	male-dominated	0.26	10	1
1174		highly complex	male-dominated	0.22	10	1
1211	Occupations in horticulture	unskilled/semi-skilled	male-dominated	0.43	10	4
1212		specialist	male-dominated	0.46	10	4
1213		complex specialist	male-dominated	0.33	10	4
1214		highly complex	gender-integrated	0.17	10	4
1222	Occupations in floristry	specialist	female-dominated	0.03	8	7
2112	Occupations in underground and surface mining and blasting engineering	specialist	male-dominated	0.72	10	8
2113		complex specialist	male-dominated	0.66	10	8
2121	Conditioning and processing of natural stone and minerals, production of building materials	unskilled/semi-skilled	male-dominated	0.67	10	7
2122		specialist	male-dominated	0.76	10	7
2123		complex specialist	male-dominated	0.64	10	7
2131	Occupations in industrial glass-making and -processing	unskilled/semi-skilled	male-dominated	0.72	10	10
2132		specialist	male-dominated	0.91	10	10
2133		complex specialist	male-dominated	0.68	10	10
2141	Occupations in industrial ceramic-making and -processing	unskilled/semi-skilled	male-dominated	0.83	10	7
2142		specialist	male-dominated	0.93	10	7
2211	Occupations in plastic- and rubber-making and -processing	unskilled/semi-skilled	gender-integrated	0.78	9	8
2212		specialist	male-dominated	0.94	9	8
2213		complex specialist	male-dominated	0.72	9	8
2214		highly complex	male-dominated	0.54	9	8
2221	Occupations in colour coating and varnishing	unskilled/semi-skilled	male-dominated	0.65	10	6
2222		specialist	male-dominated	0.74	10	6
2223		complex specialist	male-dominated	0.63	10	6
2231	Occupations in wood-working and -processing	unskilled/semi-skilled	male-dominated	0.63	10	3
2232		specialist	male-dominated	0.58	10	3
2233		complex specialist	male-dominated	0.51	10	3
2311	Technical occupations in paper-making and -processing and packaging	unskilled/semi-skilled	gender-integrated	0.79	8	10
2312		specialist	male-dominated	0.77	8	10
2313		complex specialist	male-dominated	0.58	8	10
2314		highly complex	male-dominated	0.48	8	10
2322	Occupations in technical media design	specialist	gender-integrated	0.58	3	4
2323		complex specialist	gender-integrated	0.30	3	4
2324		highly complex	gender-integrated	0.25	3	4
2332	Occupations in photography and photographic technology	specialist	gender-integrated	0.50	5	8
2341	Occupations in printing technology, print finishing, and book binding	unskilled/semi-skilled	gender-integrated	0.85	10	10
2342		specialist	male-dominated	0.90	10	10
2343		complex specialist	male-dominated	0.81	10	10
2411	Occupations in metal-making	unskilled/semi-skilled	male-dominated	0.80	10	10
2412		specialist	male-dominated	0.99	10	10
2413		complex specialist	male-dominated	0.73	10	10
2414		highly complex	male-dominated	0.56	10	10
2421	Occupations in metalworking	unskilled/semi-skilled	male-dominated	0.79	9	8
2422		specialist	male-dominated	0.85	9	8
2423		complex specialist	male-dominated	0.63	9	8
2431	Occupations in treatment of metal surfaces	unskilled/semi-skilled	male-dominated	0.73	10	10
2432		specialist	male-dominated	0.97	10	10
2433		complex specialist	male-dominated	0.65	10	10
2441	Occupations in metal constructing and welding	unskilled/semi-skilled	male-dominated	0.76	9	8
2442		specialist	male-dominated	0.70	9	8
2443		complex specialist	male-dominated	0.58	9	8
2444		highly complex	male-dominated	0.28	9	8

Table A1 (continued)

Code	Name	Requirement level	Gender-specific occupation	Substitution potential	Physical work exposure	Psycho-social work exposure
2451	Occupations in precision mechanics and tool making	unskilled/semi-skilled	gender-integrated	0.84	5	3
2452		specialist	male-dominated	0.80	5	3
2453		complex specialist	male-dominated	0.68	5	3
2454		highly complex	male-dominated	0.52	5	3
2511	Occupations in machine-building and -operating	unskilled/semi-skilled	male-dominated	0.79	7	7
2512		specialist	male-dominated	0.72	7	7
2513		complex specialist	male-dominated	0.57	7	7
2514		highly complex	male-dominated	0.34	7	7
2521	Technical occupations in the automotive, aeronautic, aerospace and ship building industries	unskilled/semi-skilled	male-dominated	0.53	7	6
2522		specialist	male-dominated	0.62	7	6
2523		complex specialist	male-dominated	0.55	7	6
2524		highly complex	male-dominated	0.39	7	6
2612	Occupations in mechatronics, automation and control technology	specialist	male-dominated	0.87	5	2
2613		complex specialist	male-dominated	0.71	5	2
2614		highly complex	male-dominated	0.57	5	2
2622	Technical occupations in energy technologies	specialist	male-dominated	0.75	6	4
2623		complex specialist	male-dominated	0.83	6	4
2624		highly complex	male-dominated	0.67	6	4
2631	Occupations in electrical engineering	unskilled/semi-skilled	gender-integrated	0.56	4	3
2632		specialist	male-dominated	0.93	4	3
2633		complex specialist	male-dominated	0.71	4	3
2634		highly complex	male-dominated	0.61	4	3
2713	Occupations in technical research and development	complex specialist	male-dominated	0.62	3	4
2714		highly complex	male-dominated	0.43	3	4
2722	Draftspersons, technical designers, and model makers	specialist	gender-integrated	0.65	3	2
2723		complex specialist	male-dominated	0.78	3	2
2724		highly complex	male-dominated	0.38	3	2
2732	Technical occupations in production planning and scheduling	specialist	male-dominated	0.68	4	6
2733		complex specialist	male-dominated	0.39	4	6
2734		highly complex	male-dominated	0.33	4	6
2811	Occupations in textile making	unskilled/semi-skilled	gender-integrated	0.76	10	10
2812		specialist	gender-integrated	0.72	10	10
2813		complex specialist	male-dominated	0.67	10	10
2814		highly complex	gender-integrated	0.42	10	10
2822	Occupations in the production of clothing and other textile products	specialist	female-dominated	0.75	4	2
2823		complex specialist	gender-integrated	0.47	4	2
2831	Occupations in leather- and fur-making and -processing	unskilled/semi-skilled	gender-integrated	0.79	8	2
2832		specialist	gender-integrated	0.83	8	2
2833		complex specialist	male-dominated	0.65	8	2
2912	Occupations in beverage production	specialist	male-dominated	0.88	6	9
2913		complex specialist	male-dominated	0.56	6	9
2914		highly complex	male-dominated	0.29	6	9
2921	Occupations in the production of foodstuffs, confectionery and tobacco products	unskilled/semi-skilled	gender-integrated	0.79	9	10
2922		specialist	male-dominated	0.66	9	10
2923		complex specialist	male-dominated	0.54	9	10
2924		highly complex	gender-integrated	0.30	9	10
2931	Cooking occupations	unskilled/semi-skilled	gender-integrated	0.13	10	8
2932		specialist	gender-integrated	0.29	10	8
2933		complex specialist	male-dominated	0.33	10	8
2934		highly complex	male-dominated	0.42	10	8
3112	Occupations in construction scheduling and supervision, and architecture	specialist	male-dominated	0.51	5	3
3113		complex specialist	male-dominated	0.41	5	3
3114		highly complex	male-dominated	0.19	5	3
3122	Occupations in surveying and cartography	specialist	male-dominated	0.53	3	1
3123		complex specialist	male-dominated	0.59	3	1
3124		highly complex	male-dominated	0.52	3	1
3211	Occupations in building construction	unskilled/semi-skilled	male-dominated	0.15	10	4
3212		specialist	male-dominated	0.04	10	4
3213		complex specialist	male-dominated	0.25	10	4
3214		highly complex	male-dominated	0.08	10	4
3221	Occupations in civil engineering	unskilled/semi-skilled	male-dominated	0.10	9	3
3222		specialist	male-dominated	0.06	9	3
3223		complex specialist	male-dominated	0.24	9	3
3224		highly complex	male-dominated	0.12	9	3
3312	Floor layers	specialist	male-dominated	0.35	10	2

Table A1 (continued)

Code	Name	Requirement level	Gender-specific occupation	Substitution potential	Physical work exposure	Psycho-social work exposure
3322	Painters and varnishers, plasterers, occupations in the waterproofing of buildings, preservation of structures and wooden building components	specialist	male-dominated	0.31	10	2
3323		complex specialist	male-dominated	0.32	10	2
3332	Occupations in the interior construction and dry walling, insulation, carpentry, glazing, roller shutter and jalousie installation	specialist	male-dominated	0.25	10	3
3333		complex specialist	male-dominated	0.21	10	3
3412	Occupations in building services engineering	specialist	male-dominated	0.58	6	5
3413		complex specialist	male-dominated	0.73	6	5
3414		highly complex	male-dominated	0.55	6	5
3421	Occupations in plumbing, sanitation, heating, ventilating, and air conditioning	unskilled/semi-skilled	male-dominated	0.47	10	6
3422		specialist	male-dominated	0.58	10	6
3423		complex specialist	male-dominated	0.52	10	6
3424		highly complex	male-dominated	0.55	10	6
3431	Occupations in building services and waste disposal	unskilled/semi-skilled	male-dominated	0.44	9	2
3432		specialist	male-dominated	0.61	9	2
3433		complex specialist	male-dominated	0.61	9	2
3434		highly complex	male-dominated	0.55	9	2
4114	Occupations in mathematics and statistics		gender-integrated	0.07	3	2
4122	Occupations in biology	specialist	female-dominated	0.53	5	4
4123		complex specialist	gender-integrated	0.34	5	4
4124		highly complex	gender-integrated	0.11	5	4
4131	Occupations in chemistry	unskilled/semi-skilled	gender-integrated	0.83	6	5
4132		specialist	gender-integrated	0.91	6	5
4133		complex specialist	male-dominated	0.63	6	5
4134		highly complex	gender-integrated	0.27	6	5
4142	Occupations in physics	specialist	male-dominated	0.81	6	6
4143		complex specialist	male-dominated	0.62	6	6
4144		highly complex	male-dominated	0.32	6	6
4213	Occupations in geology, geography and meteorology	complex specialist	male-dominated	0.16	3	3
4214		highly complex	male-dominated	0.13	3	3
4222	Occupations in environmental protection engineering	specialist	male-dominated	0.23	6	1
4223		complex specialist	male-dominated	0.29	6	1
4224		highly complex	male-dominated	0.42	6	1
4232	Occupations in environmental protection management and environmental protection consulting	specialist	gender-integrated	0.50	3	1
4233		complex specialist	male-dominated	0.27	3	1
4234		highly complex	male-dominated	0.14	3	1
4312	Occupations in computer science	specialist	male-dominated	0.29	2	3
4313		complex specialist	male-dominated	0.34	2	3
4314		highly complex	male-dominated	0.13	2	3
4323	Occupations in IT-system-analysis, IT-application-consulting and IT-sales	complex specialist	male-dominated	0.47	2	4
4324		highly complex	male-dominated	0.16	2	4
4333	Occupations in IT-network engineering, IT-coordination, IT-administration and IT-organisation	complex specialist	male-dominated	0.45	2	7
4334		highly complex	male-dominated	0.18	2	7
4342	Occupations in software development and programming	specialist	male-dominated	0.21	1	1
4343		complex specialist	male-dominated	0.13	1	1
4344		highly complex	male-dominated	0.14	1	1
5112	Technical occupations in railway, aircraft and ship operation	specialist	male-dominated	0.50	10	7
5113		complex specialist	male-dominated	0.56	10	7
5114		highly complex	male-dominated	0.88	10	7
5122	Occupations in the inspection and maintenance of traffic infrastructure	specialist	male-dominated	0.07	10	5
5123		complex specialist	male-dominated	0.39	10	5
5131	Occupations in warehousing and logistics, in postal and other delivery services, and in cargo handling	unskilled/semi-skilled	male-dominated	0.61	8	8
5132		specialist	male-dominated	0.32	8	8
5133		complex specialist	male-dominated	0.16	8	8
5134		highly complex	male-dominated	0.20	8	8
5142	Service occupations in passenger traffic	specialist	gender-integrated	0.17	9	10
5143		complex specialist	gender-integrated	0.11	9	10
5152	Occupations in traffic surveillance and control	specialist	male-dominated	0.27	4	10
5153		complex specialist	male-dominated	0.20	4	10
5154		highly complex	male-dominated	0.12	4	10
5162	Management assistants in transport and logistics	specialist	gender-integrated	0.40	4	6
5163		complex specialist	gender-integrated	0.27	4	6
5164		highly complex	male-dominated	0.21	4	6
5212	Driver of vehicles in road traffic	specialist	male-dominated	0.21	7	9
5222	Drivers of vehicles in railway traffic	specialist	male-dominated	0.00	8	10
5233	Aircraft pilots	complex specialist	male-dominated	0.50	6	10
5251	Drivers and operators of construction and transportation vehicles and equipment	unskilled/semi-skilled	male-dominated	0.83	10	6
5252		specialist	male-dominated	0.18	10	6
5253		complex specialist	male-dominated	0.42	10	6

Table A1 (continued)

Code	Name	Requirement level	Gender-specific occupation	Substitution potential	Physical work exposure	Psycho-social work exposure
5311	Occupations in physical security, personal protection, fire protection and workplace safety	unskilled/semi-skilled	gender-integrated	0.29	6	9
5312		specialist	male-dominated	0.05	6	9
5313		complex specialist	male-dominated	0.16	6	9
5314		highly complex	male-dominated	0.14	6	9
5321	Occupations in police and criminal investigation, jurisdiction and the penal institution	unskilled/semi-skilled	gender-integrated	0.14	3	9
5322		specialist	gender-integrated	0.28	3	9
5323		complex specialist	male-dominated	0.23	3	9
5324		highly complex	gender-integrated	0.00	3	9
5332	Occupations in occupational health and safety administration, public health authority, and disinfection	specialist	gender-integrated	0.29	4	4
5333		complex specialist	gender-integrated	0.34	4	4
5411	Occupations in cleaning services	unskilled/semi-skilled	female-dominated	0.25	9	9
5412		specialist	gender-integrated	0.12	9	9
5413		complex specialist	gender-integrated	0.18	9	9
6112	Occupations in purchasing and sales	specialist	gender-integrated	0.45	2	3
6113		complex specialist	male-dominated	0.17	2	3
6114		highly complex	male-dominated	0.26	2	3
6122	Trading occupations	specialist	gender-integrated	0.41	3	2
6123		complex specialist	gender-integrated	0.22	3	2
6124		highly complex	male-dominated	0.26	3	2
6132	Occupations in real estate and facility management	specialist	gender-integrated	0.38	3	5
6133		complex specialist	gender-integrated	0.40	3	5
6134		highly complex	male-dominated	0.32	3	5
6211	Sales occupations in retail trade (without product specialisation)	unskilled/semi-skilled	female-dominated	0.50	5	9
6212		specialist	female-dominated	0.44	5	9
6213		complex specialist	gender-integrated	0.20	5	9
6214		highly complex	gender-integrated	0.22	5	9
6222	Sales occupations (retail trade) selling clothing, electronic devices, furniture, motor vehicles and other durables	specialist	gender-integrated	0.41	5	5
6231	Sales occupations (retail) selling foodstuffs	unskilled/semi-skilled	gender-integrated	0.33	8	6
6232		specialist	female-dominated	0.31	8	6
6242	Sales occupations (retail) selling drugstore products, pharmaceuticals, medical supplies and healthcare goods	specialist	female-dominated	0.42	6	4
6252	Sales occupations (retail) selling books, art, antiques, musical instruments, recordings or sheet music	specialist	female-dominated	0.29	4	5
6312	Occupations in tourism and the sports (and fitness) industry	specialist	female-dominated	0.30	3	6
6313		complex specialist	gender-integrated	0.13	3	6
6314		highly complex	gender-integrated	0.20	3	6
6321	Occupations in hotels	unskilled/semi-skilled	female-dominated	0.24	5	8
6322		specialist	female-dominated	0.18	5	8
6323		complex specialist	female-dominated	0.32	5	8
6324		highly complex	gender-integrated	0.12	5	8
6331	Gastronomy occupations	unskilled/semi-skilled	gender-integrated	0.15	9	10
6332		specialist	gender-integrated	0.16	9	10
6333		complex specialist	gender-integrated	0.30	9	10
6334		highly complex	gender-integrated	0.33	9	10
6341	Occupations in event organisation and management	unskilled/semi-skilled	gender-integrated	0.06	3	9
6342		specialist	gender-integrated	0.39	3	9
6343		complex specialist	gender-integrated	0.16	3	9
6344		highly complex	gender-integrated	0.11	3	9
7114	Managing directors and executive board members	highly complex	male-dominated	0.28	3	7
7124	Legislators and senior officials of special interest organisations	highly complex	male-dominated	0.07	3	4
7132	Occupations in business organisation and strategy	specialist	gender-integrated	0.57	3	4
7133		complex specialist	male-dominated	0.20	3	4
7134		highly complex	male-dominated	0.20	3	4
7141	Office clerks and secretaries	unskilled/semi-skilled	female-dominated	0.61	2	2
7142		specialist	female-dominated	0.59	2	2
7143		complex specialist	female-dominated	0.46	2	2
7144		highly complex	gender-integrated	0.10	2	2
7152	Occupations in human resources management and personnel service	specialist	female-dominated	0.48	1	2
7153		complex specialist	female-dominated	0.25	1	2
7154		highly complex	gender-integrated	0.06	1	2
7212	Occupations in insurance and financial services	specialist	gender-integrated	0.49	1	1
7213		complex specialist	gender-integrated	0.31	1	1
7214		highly complex	gender-integrated	0.12	1	1
7222	Occupations in accounting, controlling and auditing	specialist	female-dominated	0.64	1	1
7223		complex specialist	female-dominated	0.70	1	1
7224		highly complex	gender-integrated	0.53	1	1
7232	Occupations in tax consultancy	specialist	female-dominated	0.83	1	2
7233		complex specialist	gender-integrated	0.55	1	2
7234		highly complex	gender-integrated	0.49	1	2
7312	Occupations in legal services, jurisdiction, and other officers of the court	specialist	female-dominated	0.64	2	2
7313		complex specialist	gender-integrated	0.11	2	2
7314		highly complex	gender-integrated	0.17	2	2

Table A1 (continued)

Code	Name	Requirement level	Gender-specific occupation	Substitution potential	Physical work exposure	Psycho-social work exposure
7322	Occupations in public administration	specialist	female-dominated	0.33	1	1
7323		complex specialist	gender-integrated	0.24	1	1
7324		highly complex	gender-integrated	0.07	1	1
7332	Occupations in media, documentation and information services	specialist	female-dominated	0.68	3	1
7334		highly complex	female-dominated	0.39	3	1
8112	Doctors' receptionists and assistants	specialist	female-dominated	0.51	6	5
8113		complex specialist	female-dominated	0.27	6	5
8122	Laboratory occupations in medicine	specialist	female-dominated	0.54	5	9
8123		complex specialist	female-dominated	0.59	5	9
8124		highly complex	gender-integrated	0.34	5	9
8131	Occupations in nursing, emergency medical services and obstetrics	unskilled/semi-skilled	female-dominated	0.20	8	10
8132		specialist	female-dominated	0.21	8	10
8133		complex specialist	female-dominated	0.17	8	10
8134		highly complex	female-dominated	0.18	8	10
8144	Occupations in human medicine and dentistry	highly complex	gender-integrated	0.01	6	10
8154	Occupations in veterinary medicine and non-medical animal health practitioners	highly complex	gender-integrated	0.00	10	7
8163	Occupations in psychology and non-medical psychotherapy	complex specialist	female-dominated	0.50	3	4
8164		highly complex	female-dominated	0.02	3	4
8172	Occupations in non-medical therapy and alternative medicine	specialist	female-dominated	0.22	6	2
8173		complex specialist	female-dominated	0.01	6	2
8174		highly complex	female-dominated	0.01	6	2
8182		Occupations in pharmacy	specialist	female-dominated	0.65	4
8183	complex specialist		gender-integrated	0.00	4	7
8184	highly complex		female-dominated	0.36	4	7
8211	Occupations in geriatric care		unskilled/semi-skilled	female-dominated	0.11	9
8212		specialist	female-dominated	0.00	9	10
8213		complex specialist	female-dominated	0.00	9	10
8214		highly complex	gender-integrated	0.22	9	10
8222	Occupations providing nutritional advice or health counselling, and occupations in wellness	specialist	female-dominated	0.15	4	4
8223		complex specialist	female-dominated	0.09	4	4
8224		highly complex	gender-integrated	0.16	4	4
8231	Occupations in body care	unskilled/semi-skilled	female-dominated	0.22	8	3
8232		specialist	female-dominated	0.01	8	3
8233		complex specialist	female-dominated	0.05	8	3
8242	Occupations in funeral services	specialist	male-dominated	0.13	4	7
8252	Technical occupations in medicine, orthopaedic and rehabilitation	specialist	gender-integrated	0.32	5	3
8253		complex specialist	male-dominated	0.44	5	3
8254		highly complex	male-dominated	0.26	5	3
8311	Occupations in education and social work, and pedagogic specialists in social care work	unskilled/semi-skilled	female-dominated	0.00	5	4
8312		specialist	female-dominated	0.06	5	4
8313		complex specialist	gender-integrated	0.10	5	4
8314		highly complex	female-dominated	0.05	5	4
8321	Occupations in housekeeping and consumer counselling	unskilled/semi-skilled	female-dominated	0.27	7	7
8322		specialist	female-dominated	0.16	7	7
8323		complex specialist	female-dominated	0.42	7	7
8332	Occupations in theology and church community work	specialist	gender-integrated	0.44	4	9
8333		complex specialist	gender-integrated	0.09	4	9
8334		highly complex	male-dominated	0.10	4	9
8413	Teachers in schools of general education	complex specialist	female-dominated	0.00	4	7
8414		highly complex	female-dominated	0.00	4	7
8423	Teachers for occupation-specific subjects at vocational schools and in-company instructors in vocational training	complex specialist	gender-integrated	0.02	4	5
8424		highly complex	gender-integrated	0.07	4	5
8434	Teachers and researcher at universities and colleges	highly complex	gender-integrated	0.00	3	5
8444	Teachers at educational institutions other than schools (except driving, flying and sports instructors)	highly complex	gender-integrated	0.01	3	3
8453	Driving, flying and sports instructors at educational institutions other than schools	complex specialist	gender-integrated	0.00	4	2
8454		highly complex	gender-integrated	0.00	4	2
9114	Occupations in philology	highly complex	gender-integrated	0.04	3	4
9124	Occupations in the humanities	highly complex	gender-integrated	0.01	4	5
9131	Occupations in the social sciences	unskilled/semi-skilled	gender-integrated	0.11	4	7
9132		specialist	gender-integrated	0.14	4	7
9133		complex specialist	gender-integrated	0.00	4	7
9134		highly complex	gender-integrated	0.00	4	7
9144	Occupations in economics	highly complex	gender-integrated	0.15	4	4
9212	Occupations in advertising and marketing	specialist	gender-integrated	0.24	2	8
9213		complex specialist	gender-integrated	0.04	2	8
9214		highly complex	gender-integrated	0.07	2	8
9223	Occupations in public relations	complex specialist	gender-integrated	0.06	2	6
9224		highly complex	gender-integrated	0.00	2	6

Table A1 (continued)

Code	Name	Requirement level	Gender-specific occupation	Substitution potential	Physical work exposure	Psycho-social work exposure
9232	Occupations in publishing and media management	specialist	gender-integrated	0.31	2	2
9233		complex specialist	gender-integrated	0.36	2	2
9234		highly complex	male-dominated	0.18	2	2
9242	Occupations in editorial work and journalism	specialist	gender-integrated	0.32	2	5
9243		complex specialist	gender-integrated	0.23	2	5
9244		highly complex	gender-integrated	0.00	2	5
9314	Occupations in product and industrial design	highly complex	male-dominated	0.05	4	5
9322	Occupations in interior design, visual marketing, and interior decoration	specialist	gender-integrated	0.12	4	3
9323		complex specialist	gender-integrated	0.17	4	3
9324		highly complex	gender-integrated	0.24	4	3
9333	Occupations in artisan craftwork and fine arts	complex specialist	gender-integrated	0.11	5	4
9352	Artisans working with metal	specialist	gender-integrated	0.62	7	4
9362	Occupations in musical instrument making	specialist	male-dominated	0.20	6	6
9414	Musicians, singers and conductors	highly complex	gender-integrated	0.00	6	10
9423	Actors, dancers, athletes and related occupations	complex specialist	male-dominated	0.00	9	5
9424		highly complex	gender-integrated	0.00	9	5
9432	Presenters and entertainers	specialist	male-dominated	0.17	5	9
9433		complex specialist	gender-integrated	0.00	5	9
9443	Occupations in theatre, film and television productions	complex specialist	gender-integrated	0.10	3	9
9444		highly complex	gender-integrated	0.08	3	9
9452	Occupations in event technology, cinematography, and sound engineering	specialist	male-dominated	0.63	6	9
9453		complex specialist	male-dominated	0.67	6	9
9454		highly complex	male-dominated	0.66	6	9
9462	Occupations in stage, costume and prop design,	specialist	gender-integrated	0.22	6	7
9463		complex specialist	gender-integrated	0.37	6	7
9472	Technical and management occupations in museums and exhibitions	specialist	gender-integrated	0.43	3	5
9474		highly complex	gender-integrated	0.23	3	5

Source: Own calculations, BeH (2012), BERUFENET (2012), BiBB-BAuA (2012).

**Table A2:** Regression results of substitution potential on physical and psychosocial work exposure for gender-integrated occupations

	Physical work exposure		Psychosocial work exposure	
	without control variables	with control variables	without control variables	with control variables
Substitution potential	2.541** (1.044)	-1.584 (1.304)	-0.902 (1.139)	-2.453 (1.784)
Age (reference: $\geq 50$ years)				
16 - <30 years		-0.444 (3.008)		-2.446 (4.116)
$\geq 30$ - <50 years		1.567 (4.823)		-6.214 (6.599)
Qualification (reference: low and missing education)				
Medium education		-8.895* (5.283)		-11.919 (7.229)
High education		-9.256* (4.877)		-12.539* (6.673)
Fixed-term contract		-0.831 (2.456)		-0.507 (3.360)
Full-time employment		-1.702 (4.040)		7.852 (5.529)
Minor employment		-13.609 (8.326)		5.136 (11.393)
Foreign nationality		14.573*** (4.499)		2.743 (6.156)
East German residency		3.140 (3.242)		2.084 (4.436)
Regional types (reference: core cities)				
Urbanised districts		6.441* (3.717)		3.621 (5.086)
Rural districts with features of concentration		6.894 (6.579)		4.235 (9.002)
Rural districts-sparsely populated		11.715* (6.086)		2.204 (8.328)
Establishment size (reference: 1-49)				
50-449		-1.172 (1.925)		2.713 (2.635)
>500		1.393 (1.551)		3.673* (2.122)
Sector (reference: agriculture&manufacturing)				
Services		-0.117 (1.402)		3.176 (1.918)
Constant	4.097*** (0.374)	9.204 (7.343)	5.977*** (0.408)	7.765 (10.048)
Observations	123	123	123	123
Adjusted R <sup>2</sup>	0.0388	0.4646	-0.0031	0.1205

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Standard errors in parentheses.

Source: Own calculations, BeH (2012), BERUFENET (2012), BiBB-BAuA (2012).



**Table A3:** Relationship between work exposure and substitution potential in 2012 and employment growth between 2012 and 2016 for gender-integrated occupations

	Model 1 (substitution potential)	Model 2 (work exposure)	Model 3 (substitution potential + work exposure)	Model 4 (interaction term)
Substitution potential	-0.079 (0.048)		-0.076 (0.047)	-0.078 (0.071)
Work exposure				
Physical work exposure		-0.015*** (0.005)	-0.014*** (0.005)	-0.016** (0.007)
Psychosocial work exposure		0.007** (0.003)	0.006* (0.003)	0.007 (0.005)
Interaction term				
Substitution potential*physical work exposure				0.006 (0.016)
Substitution potential*psychosocial work exposure				-0.005 (0.014)
Age (reference: $\geq 50$ years)				
16 - <30 years	0.509*** (0.121)	0.427*** (0.119)	0.455*** (0.120)	0.455*** (0.124)
$\geq 30$ - <50 years	0.109 (0.218)	0.032 (0.218)	-0.020 (0.219)	-0.025 (0.224)
Qualification (reference: low and missing education)				
Medium education	-0.663*** (0.222)	-0.657*** (0.219)	-0.645*** (0.217)	-0.645*** (0.220)
High education	-0.374* (0.205)	-0.350* (0.202)	-0.358* (0.201)	-0.357* (0.203)
Fixed-term contract	-0.101 (0.094)	-0.114 (0.092)	-0.128 (0.092)	-0.133 (0.099)
Full-time employment	-0.108 (0.119)	-0.126 (0.118)	-0.139 (0.118)	-0.147 (0.122)
Minor employment	-0.270 (0.258)	-0.343 (0.256)	-0.410 (0.257)	-0.420 (0.261)
Foreign nationality	-0.543** (0.220)	-0.241 (0.244)	-0.259 (0.243)	-0.252 (0.247)
East German residency	-0.058 (0.142)	-0.007 (0.137)	-0.089 (0.146)	-0.084 (0.150)
Regional types (reference: core cities)				
Urbanised districts	0.498*** (0.178)	0.537*** (0.177)	0.488*** (0.178)	0.500*** (0.189)
Rural districts with features of concentration	-0.973** (0.414)	-1.107*** (0.399)	-0.987** (0.403)	-1.020** (0.415)
Rural districts-sparsely populated	0.835** (0.328)	1.049*** (0.329)	1.026*** (0.327)	1.043*** (0.332)
Establishment size (reference: 1-49)				
50-449	0.196*** (0.066)	0.101 (0.071)	0.114 (0.071)	0.114 (0.072)
>500	-0.031 (0.055)	-0.063 (0.053)	-0.046 (0.054)	-0.048 (0.058)
Sector (reference: agriculture&manufacturing)				
Services	-0.048 (0.046)	-0.034 (0.040)	-0.069 (0.045)	-0.065 (0.048)
Constant	0.460 (0.281)	0.509* (0.276)	0.607** (0.280)	0.614** (0.285)
Observations	123	123	123	123
Adjusted R <sup>2</sup>	0.4621	0.4815	0.4894	0.4802

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Standard errors in parentheses.

Source: Own calculations, BeH (2012), BERUFENET (2012), BiBB-BAuA (2012).