Low-quality employment trajectories and risk of common mental disorders, substance abuse and suicide attempt: a longitudinal study of the Swedish workforce[1]

by Johanna Jonsson, MSc,[2] Carles Muntaner, PhD, Theo Bodin, PhD, Magnus Alderling, MSc, Rebeka Balogh, MSc, Bo Burström, PhD, Letitia Davis, PhD, Virginia Gunn, PhD, Tomas Hemmingsson, PhD, Mireia Julià, PhD, Katarina Kjellberg, PhD, Bertina Kreshpaj, MSc, Cecilia Orellana, PhD, Eva Padrosa, MSc, David H Wegman, PhD, Nuria Matilla-Santander, PhD

1. *Supplementary material*
2. *Correspondence to: Johanna Jonsson, Unit of Occupational Medicine, The Institute of Environmental Medicine (IMM), Karolinska Institutet, Solnavägen 4, 113 65, Stockholm, Sweden. [E-mail: johanna.jonsson@ki.se]*

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Detailed description of the creation of employment trajectories

Employment trajectories spanning 2005 to 2009, for the total population and for women and men separately, were created in two steps.

First step
Individuals were classified according to employment type (or unemployment) for each year of the exposure assessment window. Individuals that had been unemployed for >180 days during the year were categorized as unemployed. In order to distinguish employment types of precarious nature (or lack thereof) for the non-unemployed population, three dimensions and five items of precarious employment (PE) (as described by Kreshpaj et al 2020), were operationalized for each year by the means of available register data. This process has been thoroughly described in a previous publication (Jonsson et al 2021). Briefly, dimensions, items and their operationalization (within parenthesis) were:

1. *Employment insecurity* with three items, including (1a) contractual relationship insecurity (Directly employed by the employer; Employed by an agency; Combination of self-employed and directly employed; Self-employed with >1 employee; Solo self-employed), (1b) contractual temporariness (Stable employment. i.e., having the same employer for three consecutive years; Unstable employment. i.e., not having the same employer for three consecutive years), and (1c) multiple jobs/sectors (1-2 jobs (employers) during the year; >3 jobs during the year; >3 jobs in >1 economic sector)
2. *Income inadequacy* containing (2a) yearly income level (>200% of the median income of the study population in the specific year; 120-199% of the median; 80-119% of the median; 60-79% of the median; <60% of the median)
3. *Lack of rights and protection* including (3a) lack of unionization (operationalized as likelihood of being covered by collective bargaining agreement in the organization of employment; >90%; 71-90%; 0-70%).

For the sake of the operationalization of contractual temporariness, employer data from LISA was also retrieved for years 2003 and 2004. Thereafter, repeated measures latent class analysis (RMLCA) was performed with the items in order to identify an employment typology and each individual's employment type across the five years. Briefly, RMLCA – being an extension of latent class analysis – is a method aiming at identifying and describing underlying latent classes according to shared features as based on a set of indicators. RMLCA can be applied to longitudinal data as it considers the heterogeneity of the data across time and the emerging latent classes can hence be used to describe change across time (Nylund-Gibson & Choi, 2018). RMLCA produces a set of mutually exclusive and exhaustive classes, estimating the probability of membership in each latent class, and the probability of item-responses'

conditional on each of the latent classes (conditional item-response probabilities) (Collins & Lanza 2009). In RMLCA, the latter two are produced for each year included in the analysis. Class enumeration (i.e., deciding on the number of classes) was done by assessing fit indices, classification diagnostics, and by studying patterns in the data in order to identify a conceptually meaningful class-solution that differentiates between classes (Nylund-Gibson & Choi). The previous included Akaike information criterion (AIC), Bayesian information criterion (BIC) and Sample-size adjusted Bayesian information criterion (SABIC). The two latter included assessing entropy, average posterior probabilities, comparing class homogeneity and class separation, as well as creating and comparing conditional item-probability plots across class-solutions for each PE-item and year. **See fit statistics in table S1.** RMLCA was first applied to half of the data set, i.e., the exploratory data set. Thereafter, the selected class-solution was run on the other half of the data set, i.e., the calibration data set, to validate the model. Finally, as the estimates obtained from the exploratory data set provided an acceptable model fit in the calibration data set, the selected class-solution was run for the complete data set.

Based on a scree plot, the three initially best class-solutions were first selected and thereafter compared. The fit-indices AIC, BIC and SABIC indicated best fit (i.e., produced the smallest numbers) for the seven-class solution and closely thereafter, the six-class solution. The Entropy, however, was highest for the five-cluster solution, and lowest for the six-class solution – although the Entropy of the six-class solution was not much poorer than that of the seven-class solution. The five-class solution also had the highest AVEPP, followed by the six-class solution. In the end, the distinction of the classes in each solution and their meaningfulness (identified by visually inspecting plots of the conditional item-proportions, and in particular by comparing the unique high probabilities, of each solution) led to the decision of the six-class solution as the final solution. In the five-class solution there was no precarious employment relationship-class present, as it emerged first in the six-class solution. In the seven-class solution, however, the business ownership-class split in two (where one class was well off in terms of CBA and income, whereas the other class was not). As we are not investigating, in particular, self-employment, the addition of the second business ownership-class - although interesting - did not provide a strong enough rationale to choose the seven-class solution over the six-class solution. The process was similar in the separate analyses of women and men, although the final six-class solution was chosen after comparing them with four- and five-class solutions, where it was first in the six-class solution that a precarious employment relationship-class emerged. The classes were labelled by information gained from the conditional item-probability plots, class homogeneity and class separation. The six classes identified were: standard employment relationship with high income, standard employment relationship, business ownership, hybrid multiple job-holding, solo self-employment, and precarious

employment relationship. A summary of the characteristics of each of the six classes in the final employment typology can be found in **table S2**, and the conditional item-probabilities can be found in **table S3.** A seventh type, constituted by the unemployed, was added separately.

Second step

Employment trajectories were created by grouping the combinations of unemployment and employment types (hereafter known as employment states) across the five years. Grouping was governed by adhering to patterns guided by the hypotheses of the study: constancy, fluctuation and directional mobility (upwards, downwards, within, between). Initially, there were 8230 potential combinations/trajectories. As based on a previous study where similar employment types emerged (Jonsson et al 2021), unemployment, precarious employment relationship and solo self-employment were grouped as low quality, while standard employment relationship with high income, standard employment relationship, and *business ownership* were grouped as high quality. Hybrid multiple job-holding could not be determined as either high or low quality in this study and was hence kept separate. First, 68 employment trajectories were created by adhering to the patterns. However, in order to make the number of trajectories feasible for further analysis, these trajectories were merged in order to reduce the number. The final number of trajectories reached was 21. See **Table 1** and **Table S4** for details on how specific combinations of employment states were included under these patterns and merged to the final 21 trajectories.

The rationale for manually creating trajectories, versus applying methods such as sequence analysis where trajectories result directly from the analysis, was the ability to categorize individuals in patterns considered relevant the hypotheses.

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Table S1. Complete and exploratory fit indices for the total population, women and men.

Complete and exploratory fit indices				
	AIC	**BIC**	**SABIC**	**Entropy**
Total population				
Complete				
6 classes	94301864.171	94303064.692	94302800.913	0.681
Exploratory				
5 classes	50657839.889	50658593.944	50658419.151	0.827
6 classes	47155243.118	47156386.101	47156122.322	0.680
7 classes	47145420.728	47146756.502	47146448.231	0.694
Women				
Complete				
6 classes	39082202.677	39083340.021	39083076.243	0.690
Exploratory				
4 classes	19601268.779	19601984.319	19601809.526	0.819
5 classes	19569212.509	19570110.186	19569890.900	0.811
6 classes	19546346.763	19547426.578	19547162.799	0.692
Men				
Complete				
6 classes	52698334.651	52699482.926	52699219.148	0.670
Exploratory				
4 classes	26446192.612	26446915.396	26446740.604	0.763
5 classes	26398356.226	26399262.992	26399043.707	0.605
6 classes	26356054.044	26357144.792	26356881.014	0.668
AIC= Akaike information criterion; BIC= Bayesian information criterion; SABIC= Sample-size adjusted Bayesian information criterion				

Table S2. Characteristics of the final employment typology with six classes

Class	Characteristics
Precarious Employment Relationship	Directly employed or employed by an agency with unstable employment and one job. Mainly median or around median income, high to moderate collective bargaining agreement coverage.
Solo Self-employment	Solo self-employed with stable employment and one job. Poor income and poor collective bargaining agreement coverage.
Hybrid Multiple Job-Holding	In combined employment (directly employed and self-employed). Unstable employment and the largest proportions of multiple jobs and multiple jobs in multiple sectors. Income and collective bargaining agreement coverage distributed across all levels.
Business Ownership	Self-employed with stable employment and one job. Median to high income and poor to moderate collective bargaining agreement coverage.
Standard Employment Relationship	Directly employed with stable employment and one job. Median or right below median income with high collective bargaining agreement coverage.
Standard Employment Relationship with high income	Directly employed with stable employment and one job. High income and high collective bargaining agreement coverage.

Table S3. Distribution of conditional item-probabilities for the six-class solution (average across 2005-2009) for the total population, women and men.																		
	Total population N= 2,743,764						Women N= 1,275,850						Men N= 1,467,914					
	PER	**SSE**	**HMJH**	**BO**	**SER**	**SER/HI**	**PER**	**SSE**	**HMJH**	**BO**	**SER**	**SER/HI**	**PER**	**SSE**	**HMJH**	**BO**	**SER**	**SER/HI**
Total	12.9	4.0	4.1	2.5	49.3	27.3	9.8	2.8	4.3	1.2	60.5	21.3	8.9	7.0	5.9	5.9	31.7	40.6
Contractual relationship insecurity																		
Directly employed by the employer	98.0	0.0	4.9	0.0	92.4	87.4	98.0	15.4	5.6	0.0	93.3	90.7	98.1	3.9	4.3	16.6	91.3	86.6
Employed by an agency	2.0	0.0	0.0	0.0	0.3	0.0	2.0	0.0	0.0	0.0	0.3	0.2	1.9	0.0	0.0	0.0	0.3	0.1
Combination of self-employed and employment	0.0	9.8	95.0	0.0	7.3	11.8	0.0	7.8	94.4	0.0	6.5	8.4	0.0	16.4	95.5	0.0	8.4	12.4
Self-employed with employees	0.0	12.3	0.1	100.0	0.0	0.8	0.0	8.3	0.0	100.0	0.0	0.7	0.0	10.2	0.2	83.4	0.0	0.9
Solo self-employed	0.0	77.9	0.0	0.0	0.0	0.0	0.0	68.6	0.0	0.0	0.0	0.0	0.0	69.5	0.0	0.0	0.0	0.0
Contractual temporariness																		
Stable employment	0.0	87.0	36.0	88.6	100.0	85.5	0.3	89.2	39.3	89.6	100.0	85.9	0.0	88.3	33.8	90.5	100.0	85.3
Unstable employment	100.0	13.0	64.0	11.4	0.0	14.5	99.7	10.9	60.7	10.4	0.0	14.1	100.0	11.7	66.3	9.5	0.0	14.7
Multiple jobs/economic sectors																		
1 or 2 employers	80.4	99.8	58.6	99.8	99.2	93.4	80.4	99.9	54.2	99.7	99.6	90.8	80.3	99.8	55.0	99.8	97.7	96.1
≥2 employers	14.9	0.2	29.3	0.2	0.3	5.1	15.0	0.1	32.3	0.3	0.3	6.5	15.0	0.2	31.5	0.2	1.5	2.6
≥2 employers in >1 economic sector	4.7	0.0	12.2	0.0	0.6	1.6	4.6	0.0	13.6	0.0	0.2	2.7	4.7	0.0	13.5	0.0	0.8	1.4
Income level																		
≥200% of the median	3.2	2.2	6.7	7.6	0.2	17.6	1.5	2.2	5.6	4.5	0.0	12.1	4.8	2.2	11.8	9.7	0.0	19.6
120-199% of the median	13.6	12.9	22.5	40.6	0.9	80.0	8.2	8.7	18.8	30.2	0.3	82.3	18.3	12.4	27.6	48.6	0.0	80.1
80-119% of the median	60.3	22.5	44.4	45.1	72.0	2.4	56.4	14.3	37.8	42.3	63.2	5.6	63.4	31.1	36.4	37.2	89.0	0.2
60-79% of the median	15.0	22.4	10.5	3.8	19.4	0.0	22.5	11.0	17.2	17.9	27.0	0.0	8.6	19.6	8.4	2.7	8.2	0.0
<60% of the median	7.9	40.1	16.0	2.9	7.5	0.0	11.4	63.8	20.6	5.0	9.5	0.0	4.9	34.7	15.8	1.9	2.7	0.1
Collective bargaining agreement coverage																		
>90%	58.3	0.0	28.0	0.4	80.6	86.9	68.7	0.0	40.6	1.1	88.0	90.5	49.3	0.0	30.0	0.1	72.0	85.6
71-90%	30.4	0.0	22.0	49.0	13.8	13.1	23.4	0.0	18.1	43.7	9.4	9.6	36.4	0.0	24.5	40.9	21.3	14.4
≤70%	11.4	100.0	49.9	50.6	5.6	0.0	7.9	100.0	41.3	55.2	2.6	0.0	14.3	100.0	45.5	59.0	6.7	0.0

PER=precarious employment relationship; SSE= solo self-employment; HMJH=hybrid multiple job-holding; BO= business ownership; SER= standard employment relationship; SER/HI= standard employment relationship - high income

Table S4. Grouping of 68 trajectories into the final 21 trajectories

68 trajectories	21 trajectories
Constant trajectories	
Classification: Spending 4-5 years in a specific employment state, or in combinations of LQ (UE, PER, SSE) or HQ (BO, SER, SER/HI) employment states, independent of order through time.	
Constant UE	Constant UE
Constant PER	Constant PER
Constant SSE	Constant SSE
Constant HMJH	Constant HMJH
Constant BO	Constant BO
Constant SER	Constant SER
Constant SER/HI	Constant SER/HI
Constant LQ	Constant LQ
Constant HQ	Constant HQ
Abbreviations: UE=unemployment; PER=precarious employment relationship; SSE=solo self-employment; HMJH=hybrid multiple job-holding; BO= business ownership; SER= standard employment relationship; SER/HI=standard employment relationship with high income; LQ=low quality; HQ=high quality.	
Fluctuating trajectories	
Classification: Spending a minimum of two years in two different employment states with fluctuating movement in-and-out of the these. Combinations of LQ- and HQ-employment states are also included (if a minimum of two years in the LQ- and HQ-classes, respectively).	
FL PER and UE	FL LQ
FL PER and SSE	
FL UE and SSE	
FL SSE and HMJH	FL LQ and HMJH
FL PER and HMJH	
FL UE and HMJH	
FL HMJH and LQ	
FL PER and SER	FL LQ and HQ
FL PER and SER/HI	
FL SSE and SER	
FL SSE and SER/HI	
FL SSE and BO	
FL LQ and HQ	
FL UE and SER/HI	
FL UE and SER	
FL SER and HMJH	FL HQ and HMJH
FL SER/HI and HMJH	
FL HMJH and BO	
FL HMJH and HQ	
FL SER and SER/HI	FL HQ
FL BO and SER	
FL BO and SER/HI	
Abbreviations: FL=fluctuating; UE=unemployment; PER=precarious employment relationship; SSE=solo self-employment; HMJH=hybrid multiple job-holding; BO= business ownership; SER= standard employment relationship; SER/HI=standard employment relationship with high income; LQ=low quality; HQ=high quality.	
Trajectories characterized by mobility	
Classification: Spending a minimum of one year in one employment state at the beginning of the trajectory, followed by a minimum of two years in another employment state at the end of the trajectory. The last two years could also be characterized by combinations of LQ- or HQ-employment states. Mobility can be upwards, downwards, within or between.	
BW PER and UE	WI LQ
BW SSE and UE	
BW SSE and PER	
BW PER and SSE	
BW UE and PER	

BW UE and SSE	
BW SER and SER/HI	WI HQ
BW SER and BO	
BW BO and SER/HI	
BW SER/HI and SER	
BW BO and SER	
BW SER/HI and BO	
BW LQ and HMJH	BW LQ & HMJH
BW HMJH and LQ	
BW HQ and HMJH	BW HQ & HMJH
BW HMJH and HQ	
DW BO to UE	DW HQ to LQ
DW BO to PER	
DW SER to PER	
DW SER/HI to PER	
DW BO to PER-SE	
DW SER/HI to SSE	
DW SER to SSE	
DW SER to UE	
DW SER/HI to UE	
DW HQ to LQ	
UW PER to SER	UW LQ to HQ
UW PER to SER/HI	
UW PER to BO	
UW SSE to BO	
UW SSE to SER/HI	
UW SSE to SER	
UW UE to SER	
UW UE to SER/HI	
UW UE to BO	
UW LQ to HQ	
Abbreviations: BW=between; WI=within; DW= downward; UW=upward; UE=unemployment; PER=precarious employment relationship; SSE=solo self-employment; HMJH=hybrid multiple job-holding; BO= business ownership; SER= standard employment relationship; SER/HI=standard employment relationship with high income; LQ=low quality; HQ=high quality.	
Other trajectories	
Any other combination of employment states.	
Other	Other
Note: if potential combinations of employment states matched several patterns, grouping was done in the following hierarchy: fluctuation, constancy, mobility.	

Table S5. Sociodemographic characteristics of the total population (2005) according to employment trajectories (n= 2,743,764).

	Constant									Fluctuating					Mobility						Other	Total
	SER	SER /HI	BO	HMJH	SSE	PER	UE	HQ	LQ	HQ	LQ	HQ and HMJH	LQ and HMJH	LQ and HQ	WI HQ	BW HQ and HMJH	BW LQ and HMJH	WI LQ	UW LQ to HQ	DW HQ to LQ	Other	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Total	38.6	21.8	1.7	1.6	2.9	3.8	0.05	4.9	0.6	2.4	0.07	1.1	0.50	7.9	0.2	1.4	0.57	0.02	4.6	4.2	1.46	100
Age (2005)																						
18 to 24y	3.1	0.5	0.5	2.9	0.9	20.1	3.6	2.9	9.1	2.4	8.8	7.5	7.4	8.2	3.0	7.3	7.1	8.5	10.2	7.2	7.2	4.1
25 to 34y	19.0	15.7	13.1	17.5	11.0	36.0	22.8	26.3	29.6	24.4	28.3	29.7	24.6	30.9	24.8	24.5	24.9	27.0	32.6	29.3	27.7	21.4
35 to 44y	28.5	33.3	33.8	29.1	27.7	24.5	27.7	32.4	31.4	31.6	30.4	30.9	29.9	30.7	32.4	29.9	30.0	29.6	28.0	31.4	32.3	30.2
45 to 54y	30.6	32.3	33.8	31.8	34.5	14.3	26.4	24.3	20.8	27.2	23.6	21.9	24.7	20.7	26.0	24.6	24.7	23.7	20.2	21.5	22.2	28.2
55 to 61y	18.8	18.2	18.8	18.7	25.8	5.2	19.5	14.1	9.1	14.3	8.9	10.1	13.5	9.4	13.8	13.5	13.4	11.3	8.9	10.5	10.6	16.1
Level of education (2005)																						
Primary/secondary school	71.8	39.3	75.4	60.9	78.5	74.3	75.8	58.2	75.7	60.6	77.4	69.0	67.1	70.3	68.2	59.9	66.3	75.6	68.1	70.3	64.7	63.2
Tertiary education <3y	13.4	21.3	12.7	16.6	10.8	11.8	11.2	16.0	11.6	15.6	10.5	12.9	15.0	12.5	13.6	15.5	15.6	10.5	12.2	13.2	15.2	15.2
Tertiary education ≥3y	14.8	39.4	12.0	22.6	10.7	13.9	13.0	25.8	12.7	23.8	12.1	18.0	17.9	17.1	18.2	24.8	18.1	13.9	19.7	16.4	20.1	21.6
Marital status (2005)																						
Couple with children	48.1	53.7	59.9	53.0	49.9	41.0	33.7	50.4	44.5	50.0	37.3	48.1	49.6	47.1	47.4	55.0	49.6	41.2	45.2	47.8	51.7	49.5
Couple with no children	16.1	14.9	16.9	14.7	18.0	6.7	12.1	12.2	8.6	12.7	8.6	10.2	11.2	9.8	13.3	12.9	10.8	10.3	9.7	10.4	10.3	13.9
Single with children	9.4	5.9	4.7	7.2	7.3	9.3	13.6	7.2	9.5	7.2	11.4	8.1	7.8	8.3	7.0	6.6	7.9	7.1	8.5	8.7	7.4	8.0
Single	26.4	25.5	18.5	25.1	24.8	43.0	40.5	30.2	37.4	30.1	42.7	33.7	31.4	34.8	32.3	25.5	31.6	41.4	36.6	33.1	30.6	28.5
Parental mental disorder diagnosis																						
No	81.4	84.1	85.3	85.7	79.3	84.2	65.5	83.6	77.7	83.1	74.7	83.3	83.3	82.9	83.9	86.2	83.6	75.0	83.4	82.3	83.8	82.7
Yes	11.5	11.0	11.0	10.9	12.0	11.2	13.4	10.7	12.0	10.9	12.2	10.7	10.9	10.7	10.7	10.5	10.8	11.8	10.8	11.3	10.8	11.2
Unknown	7.1	4.9	3.7	3.5	8.7	4.6	21.0	5.7	10.3	5.9	13.1	6.0	5.8	6.3	5.4	3.3	5.6	13.2	5.8	6.5	5.4	6.1
Parental socioeconomic position during childhood																						
Manual	51.1	37.9	43.9	35.2	39.1	45.3	9.5	43.1	34.5	45.7	21.8	44.6	32.8	45.5	46.5	38.5	34.8	33.7	43.8	45.4	37.9	44.9
Non-manual	26.9	45.8	35.1	35.3	28.0	33.3	5.3	36.8	23.0	34.3	13.5	33.4	34.6	33.1	33.9	35.8	35.3	26.8	32.3	33.3	37.2	33.7

Farmers. self-employed	8.8	6.7	12.7	20.2	18.5	7.9	1.4	8.4	6.1	8.3	3.1	8.7	15.2	7.6	8.1	16.8	15.3	6.4	7.6	7.9	11.2	8.9
Unknown	13.2	9.7	8.4	9.3	14.4	13.5	83.8	11.7	36.4	11.8	61.6	13.2	17.3	13.8	11.4	8.9	14.6	33.0	16.3	13.4	13.7	12.6

Note: PER=precarious employment relationship; SSE= solo self-employment; HMJH=hybrid multiple job-holding; BO= business ownership; SER= standard employment relationship; SER/HI= standard employment relationship with high income; LQ=low quality; HQ=high quality; WI=within; BW=between; UW=upwards; DW=downwards

Table S6a. Sociodemographic characteristics of women according to employment trajectories (n= 1,275,850)

	Constant									Fluctuating					Mobility						Other	Total
	SER	SER /HI	BO	HMJH	SSE	PER	UE	HQ	LQ	HQ	LQ	HQ and HMJH	LQ and HMJH	LQ and HQ	WI HQ	BW HQ and HMJH	BW LQ and HMJH	WI LQ	UW LQ to HQ	DW HQ to LQ	Other	
	%	%	%	%	%	%	%	%	%	%	%	%	%		%	%	%	%	%	%		%
Total	52.5	12.9	0.68	1.46	1.75	3.83	0.07	4	0.6	1.83	0.06	0.86	0.36	7.46	0.15	1.21	0.44	0.01	4.77	4.02	1.01	100
Age (2005)																						
18 to 24y	2.3	0.1	0.4	2.2	1.3	21.2	6.2	1.3	10.8	0.9	7.0	7.1	9.5	7.8	2.4	1.5	7.5	6.3	9.3	7.1	8.3	3.7
25 to 34y	17.7	12.5	10.9	14.6	11.5	36.0	22.7	24.0	27.2	25.3	29.3	29.2	23.0	30.6	23.3	16.6	23.5	24.1	32.3	28.9	25.3	20.2
35 to 44y	28.9	32.1	31.9	30.2	28.0	24.5	31.4	33.9	31.6	29.6	31.0	31.4	31.1	31.3	31.3	32.5	32.3	35.1	28.0	31.9	33.5	29.8
45 to 54y	31.9	35.3	36.8	34.9	33.4	13.6	23.6	26.1	19.8	28.5	22.9	22.3	24.9	21	28.2	33.8	24.7	21.3	21.4	21.9	23.2	29.5
55 to 61y	19.3	19.9	20.0	18.1	25.8	4.8	16.1	14.7	10.6	15.7	9.8	9.9	11.6	9.3	14.9	15.6	12.0	13.2	9.0	10.2	9.7	16.7
Country of birth																						
Sweden	89.8	90.6	91.2	92.9	87.5	90.8	75.8	89.9	86	90.1	82.5	93.2	88.9	88.9	89.7	92.8	90.9	79.2	89.6	88.7	91.0	89.9
Within EU-28	7.0	6.9	6.6	5.0	8.3	5.2	11.9	6.9	8.0	6.7	9.3	4.7	6.9	6.9	6.9	5.0	5.7	8.9	6.6	6.9	5.6	6.8
Outside EU-28	3.2	2.4	2.2	2.1	4.1	4.0	12.4	3.2	5.9	3.2	8.1	2.1	4.1	4.1	3.4	2.2	3.3	11.9	3.9	4.4	3.4	3.3
Level of education (2005)																						
Primary/secondary school	66.1	24.9	68.8	52.0	73.7	66.6	69.4	39.9	73.1	37.9	70.4	62.4	61.4	63.9	53.1	49.4	57.9	74.1	61.2	63.7	57.3	58.2
Tertiary education <3y	15.6	21.8	14.9	18.6	12.8	14.1	14.0	19.4	12.6	18.7	12.8	14.5	16.6	14.2	17.8	17.2	18.3	9.8	13.7	15.5	17.5	16.4
Tertiary education ≥3y	18.4	53.3	16.3	29.4	13.5	19.2	16.5	40.7	14.3	43.3	16.7	23.0	22.1	21.8	29.1	33.4	23.8	16.1	25.2	20.8	25.2	25.4
Marital status (2005)																						
Couple with children	50.0	47.3	55.2	51.5	45.1	40.5	40.5	49.8	44.6	47.3	38.4	48.1	46.6	47.3	41.3	55.2	46.7	36.2	44.8	47.9	50.1	48.6
Couple with no children	17.8	16.4	22.4	16.0	22.1	7.1	15.1	13.0	10.6	15.0	10.7	11.2	11.3	10.8	15.3	14.4	11.9	14.9	10.6	11.1	11.2	15.7
Single with children	11.5	11.8	8.2	11.0	11.0	12.8	15.9	12.0	14.7	12.2	19.1	12.2	12.6	12.4	12.8	10.2	12.9	14.9	12.2	13.4	12.4	11.8
Single	20.7	24.5	14.2	21.5	21.7	39.6	28.5	25.2	30.1	25.5	31.8	28.5	29.4	29.5	30.7	20.1	28.5	33.9	32.5	27.7	26.4	23.9
Age (2009)																						

22 to 34y	10.7	4.7	4.3	9.0	6.1	44.3	18.5	12.3	26.6	11.7	21.4	23.3	21.4	25	14.6	8.7	19.9	19.0	28.4	22.5	21.4	13.8
35 to 44y	26.1	25.9	24.9	24.3	21.7	28.9	29.8	34.2	30.8	32.9	33.2	32.9	29.6	33.4	29.3	28.0	30.5	31.0	31.0	33.6	32.7	27.8
45 to 54y	31.0	35.2	35.8	35.5	32.5	17.5	27.2	29.3	25.1	28.5	27.2	26.0	29.4	24.9	29.9	35.1	28.7	28.2	23.7	25.9	28.4	30.0
55 to 65y	32.2	34.2	35.0	31.1	39.7	9.3	24.5	24.2	17.4	26.9	18.2	17.9	19.6	16.7	26.2	28.2	20.9	21.8	16.9	18.1	17.4	28.4
Level of education (2009)																						
Primary/secondary school	65.2	24.6	68.6	50.1	73.2	61.8	67.4	39.1	70.9	37.3	68.9	60.5	57.5	62	52.4	48.0	55.0	73.6	59.6	61.1	54.0	57.0
Tertiary education <3y	15.5	21.5	14.9	18.6	12.9	14.0	15.0	18.9	13.4	18.4	13.0	13.9	17.8	13.5	17.4	17.0	18.6	9.8	13.5	15.0	18.1	16.3
Tertiary education ≥3y	19.3	53.8	16.5	31.2	13.9	24.2	17.6	42.0	15.7	44.2	18.2	25.6	24.7	24.5	30.2	35.0	26.4	16.7	26.9	24.0	27.8	26.7
Marital status (2009)																						
Couple with children	45.8	43.1	48.6	46.3	39.7	44.9	37.5	49.2	43.7	50.5	38.6	49.3	45.4	49.2	45.1	49.9	45.4	33.9	48.8	48.1	48.8	46.1
Couple with no children	23.4	22.3	29.3	22.3	27.9	9.8	17.5	17.1	14.4	17.8	13.1	14.7	15.3	14	19.7	20.8	16.5	16.1	14.1	14.5	15.0	20.7
Single with children	10.7	11.0	8.1	10.6	10.1	12.2	16.4	12.0	14.6	11.1	18.2	11.8	13.1	12	11.8	10.1	12.5	16.7	11.7	12.5	12.4	11.1
Single	20.1	23.6	14.0	20.9	22.3	33.2	28.6	21.7	27.3	20.6	30.1	24.1	26.2	24.7	23.4	19.2	25.6	33.3	25.3	24.8	23.8	22.1
Mental disorder diagnosis before 2003																						
No	96.9	97.9	97.6	97.2	96.9	96.6	95.6	97.5	95.8	97.1	94.6	96.9	96.6	96.8	97.3	97.7	96.9	95.4	96.8	96.8	96.8	97.0
Yes	3.1	2.1	2.4	2.8	3.1	3.4	4.4	2.5	4.2	2.9	5.4	3.1	3.4	3.2	2.7	2.3	3.1	4.6	3.2	3.2	3.2	3.0
Parental mental disorder diagnosis																						
No	81.6	82.6	83.1	84.6	79.0	84.6	71.4	82.8	79.2	82.7	76.4	83.0	82.9	82.7	82.9	85.5	83.4	74.7	82.9	81.6	83.9	82.2
Yes	11.4	11.0	11.0	10.9	12.3	10.8	11.1	10.8	12.3	10.9	12.1	10.6	11.5	10.6	10.8	10.5	11.2	12.1	10.8	11.3	10.9	11.2
Unknown	6.9	6.5	5.9	4.5	8.8	4.6	17.4	6.4	8.6	6.4	11.5	6.4	5.6	6.6	6.3	4.1	5.3	13.2	6.2	7.1	5.3	6.6
Parental socioeconomic position during childhood																						
Manual	50.2	33.0	40.4	34.8	41.8	42.9	23.6	37.6	36.4	38.4	28.2	43.2	33.4	44	42.2	36.5	34.7	24.1	42.5	43.7	37.5	44.8
Non-manual	28.1	49.1	38.0	39.3	33.0	35.3	18.8	42.1	25.3	41.4	18.8	34.7	38.5	34.3	37.8	38.1	39.7	27.0	33.7	34.7	38.8	33.6

Farmers. self-employed	9.0	6.7	10.7	15.4	10.1	8.5	5.3	8.2	7.2	8.2	5.4	8.7	10.8	7.9	7.6	15.9	10.8	5.7	7.8	7.9	10.4	8.7
Unknown	12.7	11.2	10.9	10.5	15.1	13.2	52.3	12.1	31.2	12.0	47.6	13.4	17.4	13.8	12.4	9.5	14.8	43.1	16.0	13.6	13.3	12.9
Note: PER=precarious employment relationship; SSE= solo self-employment; HMJH=hybrid multiple job-holding; BO= business ownership; SER= standard employment relationship; SER/HI= standard employment relationship with high income; LQ=low quality; HQ=high quality; WI=within; BW=between; UW=upwards; DW=downward																					

Table S6b. Sociodemographic characteristics of men according to trajectories (n=1,467,914)

	Constant									Fluctuating					Mobility						Other	Total
	SER	SER/HI	BO	HMJH	SSE	PER	UE	HQ	LQ	HQ	LQ	HQ and HMJH	LQ and HMJH	LQ and HQ	WI HQ	BW HQ and HMJH	BW LQ and HMJH	WI LQ	UW LQ to HQ	DW HQ to LQ	Other	
	%	%	%	%	%	%	%	%	%	%	%	%	%		%	%	%	%	%	%	%	%
Total	25.07	28.97	2.91	1.66	4.45	3.75	0.17	5.59	0.89	2.74	0.11	1.26	0.66	8.49	0.19	1.54	0.70	0.03	4.44	4.53	1.86	
Age (2005)																						
18 to 24y	4.6	0.6	0.5	3.4	0.9	19.2	3.9	4.0	10.1	3.3	11.0	2.0	6.9	8.4	3.8	3.4	6.8	9.3	11.1	7.1	6.4	4.4
25 to 34y	21.6	17.1	13.7	17.4	11.1	36.0	22.5	27.9	29.3	23.9	27.1	21.9	25.3	31	26.0	22.8	25.2	30.1	33.1	29.3	28.8	22.4
35 to 44y	27.9	33.8	34.0	26.3	27.5	24.4	30.6	31.4	29.8	32.8	29.4	32.2	29.9	30.2	31.9	32.1	28.7	26.6	28.1	30.9	32.0	30.5
45 to 54y	28.2	31.0	33.1	31.2	34.7	14.9	27.1	23.1	21.4	26.5	23.2	29.0	24.3	20.6	25.1	27.4	24.6	23.8	19.0	21.4	21.9	27.1
55 to 61y	17.7	17.4	18.7	21.7	25.8	5.6	16.0	13.6	9.4	13.6	9.3	14.9	13.6	9.8	13.2	14.3	14.7	10.3	8.7	11.2	11.0	15.6
Country of birth																						
Sweden	89.1	93.2	93.9	94.4	88.4	90.9	81.2	91.4	82.6	90.9	77.4	94.6	89.9	89.9	91.3	93.7	91.2	83.1	90.7	90	91.2	91.0
Within EU-28	7.0	4.7	4.5	3.5	6.8	4.7	8.4	5.6	8.6	6.2	11.5	3.4	6.1	5.4	6.1	3.9	4.9	7.8	5.6	6.2	4.9	5.7
Outside EU-28	3.9	2.1	1.5	2.1	4.8	4.3	10.4	3.0	8.8	2.9	11	1.9	3.9	4.6	2.6	2.4	3.9	9.1	3.7	3.8	3.9	3.4
Level of education (2005)																						
Primary/secondary school	82.2	45.2	74.8	57.3	80.7	81.0	72.4	70.0	79.5	73.5	82.4	58.3	70.2	75.6	80.2	62.1	70.1	77.1	74.5	75.7	68.5	67.6
Tertiary education <3y	9.3	21.2	13.0	15.7	10.0	9.8	12.4	13.8	10.5	14.0	9.3	15.0	14.3	11.1	10.2	15.2	13.8	10.1	11.0	11.4	13.7	14.1
Tertiary education ≥3y	8.4	33.5	12.2	27.0	9.3	9.2	15.2	16.1	9.9	12.5	8.3	26.7	15.6	13.3	9.6	22.7	16.1	12.8	14.5	12.9	17.8	18.4
Marital status (2005)																						
Couple with children	44.9	56.1	60.6	52.7	51.8	41.4	44.6	50.7	45.5	51.7	39.2	55.3	51.4	47.1	49.7	54.6	50.4	42.9	45.9	47.7	52.8	50.3
Couple with no children	12.8	14.3	15.8	14.8	16.4	6.4	10.6	11.7	8.3	11.5	8.3	12.3	10.3	9.2	11.7	11.8	10.7	8.3	8.7	10.1	9.9	12.4

Single with children	5.5	3.7	4.0	4.9	5.9	6.1	7.7	4.4	6.3	4.5	7.0	4.7	5.7	5	4.3	4.9	5.6	4.5	5.1	5.1	5.0	4.8
Single	36.8	25.9	19.6	27.6	25.9	46.1	37.1	33.3	39.9	32.3	45.5	27.7	32.5	38.7	34.3	28.7	33.3	44.4	40.3	37.2	32.3	32.5
Age (2009)																						
22 to 34y	15.9	7.2	5.1	12.1	5.5	42.0	15.2	18.7	26.9	15.1	26.0	12.2	20.2	25.6	16.4	14.4	20.1	27.6	30.5	22.9	21.3	15.7
35 to 44y	27.0	30.8	28.9	23.8	21.4	29.0	29.8	33.0	31.0	32.6	29.6	31.2	30.3	33.2	33.5	31.5	29.6	29.1	31.7	33.4	33.9	29.8
45 to 54y	27.9	32.3	34.6	29.0	32.9	18.5	28.6	26.0	25.3	28.7	27.0	30.8	26.7	24.1	27.2	29.4	26.7	25.3	22.2	24.8	26.0	28.4
55 to 65y	29.1	29.6	31.4	35.2	40.3	10.5	26.5	22.3	16.8	23.6	17.4	25.9	22.8	17.1	22.9	24.7	23.7	18.0	15.6	18.9	18.8	26.1
Level of education (2009)																						
Primary/secondary school	81.7	45.1	74.7	56.0	80.5	78.7	71.6	69.4	78.5	73.1	81.6	57.6	68.7	74.5	79.3	60.9	68.4	76.9	73.5	74.4	67.3	66.9
Tertiary education <3y	9.5	21.2	13.0	15.5	10.0	10.2	12.6	13.8	10.9	13.9	9.4	15.2	14.5	11.3	10.4	15.4	14.3	11.1	11.2	11.7	14.0	14.2
Tertiary education ≥3y	8.8	33.7	12.3	28.5	9.4	11.0	15.8	16.8	10.6	12.9	9.0	27.2	16.8	14.2	10.2	23.7	17.3	12.1	15.3	13.9	18.7	18.9
Marital status (2009)																						
Couple with children	43.1	54.0	56.1	49.1	46.3	44.1	42.0	51.9	45.6	51.7	40.4	54.7	50.4	49.5	49.1	54.0	49.6	44.4	49.0	49.0	53.8	49.4
Couple with no children	17.2	19.7	22.1	20.9	22.5	9.2	14.1	15.7	11.2	15.6	9.6	16.9	14.0	12.3	16.4	16.3	15.1	11.5	11.7	13.4	13.4	16.9
Single with children	5.3	4.0	4.4	4.7	5.9	5.0	6.9	4.4	6.3	4.8	7.4	5.1	5.4	4.8	4.5	4.8	5.5	5.8	4.6	4.9	5.0	4.8
Single	34.3	22.2	17.4	25.3	25.3	41.7	36.9	27.9	36.9	27.9	42.6	23.3	30.2	33.4	30.0	24.9	29.8	38.3	34.8	32.6	27.9	28.9
Mental disorder diagnosis before 2003																						
No	96.5	98.3	98.4	97.9	97.7	96.7	95.7	97.7	96.0	97.5	94.5	98	97.7	97.1	97.2	97.9	97.5	96.2	96.9	97.0	97.5	97.4
Yes	3.5	1.7	1.6	2.1	2.3	3.3	4.3	2.3	4.0	2.5	5.5	2.0	2.3	2.9	2.8	2.1	2.5	3.8	3.1	3.0	2.5	2.6
Parental mental disorder diagnosis																						
No	81.0	84.7	85.6	85.3	79.7	83.9	76.4	84.1	77.0	83.4	73.7	90.8	83.8	87.5	84.4	85.7	83.9	74.9	83.9	82.8	84.1	83.2
Yes	11.7	11.0	11.0	11.3	11.8	11.6	12.2	10.7	11.8	11.0	11.5	6.1	10.6	6.4	10.5	10.6	10.5	10.8	10.7	11.2	10.8	11.2

Unknown	7.3	4.3	3.4	3.4	8.5	4.5	11.4	5.2	11.2	5.6	14.7	3.1	5.7	6.1	5.1	3.8	5.6	14.3	5.4	5.9	5.1	5.7
Parental socioeconomic position during childhood																						
Manual	53.2	39.9	43.6	33.1	38.4	47.4	23.3	46.5	35.8	49.8	22.2	38.3	33.0	46.7	51.2	38.1	34.8	36.1	45.1	46.8	38.7	45.0
Non-manual	24.5	44.4	35.7	37.2	25.4	31.6	22.5	33.3	22.7	30.4	14.0	37.4	32.6	32.1	28.8	37.1	33.4	26.6	31.1	32.2	36.0	33.7
Farmers. self-employed	8.2	6.6	12.5	20.3	22.2	7.3	6.2	8.6	6.9	8.4	3.2	15.7	17.4	7.6	8.7	15.5	17.3	7.3	7.4	8.0	12.1	9.0
Unknown	14.1	9.1	8.1	9.3	14.1	13.7	48.0	11.5	34.6	11.5	60.7	8.6	17.0	13.6	11.3	9.3	14.6	30.1	16.4	13.0	13.2	12.3
Note: PER=precarious employment relationship; SSE= solo self-employment; HMJH=hybrid multiple job-holding; BO= business ownership; SER= standard employment relationship; SER/HI= standard employment relationship with high income; LQ=low quality; HQ=high quality; WI=within; BW=between; UW=upwards; DW=downward																						

Table S7a. Hazard ratios (crude and adjusted) for common mental disorders for the total population (n= 2,743,764), women (n= 1,275,850) and men (n=1,467,914).

		Common mental disorders											
Total		**No. of cases**	**HR**	**CI95%**			**HR1**	**CI95%**			**HR2**	**CI95%**	
	Constant SER	40261	ref	ref	ref		ref	ref	ref		ref	ref	ref
	Constant SER/HI	14450	0.63	0.62	0.64		0.77	0.76	0.79		0.77	0.75	0.78
	Constant BO	1088	0.62	0.58	0.66		0.83	0.78	0.88		0.84	0.79	0.89
	Constant HMJH	1361	0.81	0.77	0.86		0.95	0.90	1.01		0.97	0.92	1.02
	Constant SSE	2362	0.76	0.73	0.79		0.94	0.90	0.98		0.95	0.91	0.99
	Constant PE	5808	1.47	1.43	1.51		1.29	1.25	1.32		1.27	1.24	1.31
	Constant UE	97	1.77	1.45	2.16		1.61	1.31	1.96		1.42	1.16	1.74
	Constant HQ	4439	0.87	0.84	0.89		0.94	0.91	0.96		0.93	0.90	0.96
	Constant LQ	915	1.42	1.33	1.52		1.35	1.27	1.45		1.29	1.21	1.38
	Fluctuating HQ	2079	0.83	0.80	0.87		0.91	0.88	0.96		0.91	0.87	0.95
	Fluctuating LQ	134	1.79	1.51	2.13		1.63	1.38	1.93		1.49	1.26	1.77
	Fluctuating HQ and HMJH	906	0.78	0.73	0.83		0.91	0.85	0.97		0.92	0.86	0.98
	Fluctuating LQ and HMJH	604	1.14	1.05	1.23		1.21	1.12	1.32		1.20	1.11	1.30
	Fluctuating LQ and HQ	9258	1.10	1.08	1.13		1.08	1.05	1.10		1.07	1.05	1.10
	Within HQ	206	0.96	0.84	1.10		1.05	0.92	1.21		1.05	0.92	1.20
	Between HQ and HMJH	1240	0.85	0.80	0.90		0.94	0.89	1.00		0.95	0.90	1.01
	Between LQ and HMJH	653	1.09	1.01	1.18		1.16	1.07	1.25		1.16	1.07	1.25
	Within LQ	37	1.71	1.24	2.37		1.70	1.23	2.35		1.62	1.17	2.23
	Upward LQ to HQ	5438	1.12	1.09	1.15		1.05	1.02	1.08		1.04	1.01	1.07
	Downward HQ to LQ	5030	1.13	1.09	1.16		1.11	1.07	1.14		1.10	1.07	1.13
	Other	1627	1.06	1.01	1.12		1.12	1.07	1.18		1.12	1.06	1.17
Women		**No. of cases**	**HR**	**CI95%**			**HR1**	**CI95%**			**HR2**	**CI95%**	
	Constant SER	27645	ref	ref	ref		ref	ref	ref		ref	ref	ref

	Constant SER/HI	5446	0.80	0.77	0.82		0.84	0.81	0.86		0.83	0.80	0.85
	Constant BO	282	0.78	0.70	0.88		0.86	0.76	0.97		0.86	0.76	0.97
	Constant HMJH	803	1.05	0.98	1.12		1.08	1.01	1.16		1.08	1.01	1.16
	Constant SSE	879	0.95	0.89	1.02		1.00	0.93	1.07		0.99	0.92	1.06
	Constant PE	3438	1.73	1.66	1.79		1.32	1.27	1.36		1.30	1.25	1.35
	Constant UE	69	1.79	1.42	2.27		1.47	1.16	1.86		1.35	1.06	1.71
	Constant HQ	2124	1.01	0.96	1.05		0.96	0.92	1.01		0.96	0.91	1.00
	Constant LQ	518	1.66	1.52	1.81		1.36	1.25	1.49		1.30	1.19	1.42
	Fluctuating HQ	967	1.00	0.94	1.07		0.96	0.90	1.03		0.95	0.89	1.02
	Fluctuating LQ	64	1.92	1.51	2.46		1.50	1.18	1.92		1.38	1.08	1.77
	Fluctuating HQ and HMJH	438	0.96	0.88	1.06		1.00	0.91	1.10		1.01	0.92	1.11
	Fluctuating LQ and HMJH	264	1.40	1.24	1.59		1.25	1.10	1.41		1.22	1.08	1.38
	Fluctuating LQ and HQ	5038	1.29	1.25	1.33		1.11	1.08	1.14		1.10	1.07	1.13
	Within HQ	92	1.18	0.96	1.44		1.11	0.91	1.37		1.11	0.90	1.36
	Between HQ and HMJH	671	1.05	0.98	1.14		1.06	0.98	1.14		1.06	0.98	1.14
	Between LQ and HMJH	334	1.44	1.30	1.61		1.31	1.18	1.46		1.29	1.16	1.44
	Within LQ	13	1.85	1.07	3.18		1.52	0.88	2.61		1.40	0.81	2.41
	Upward LQ to HQ	3166	1.26	1.22	1.31		1.07	1.03	1.11		1.06	1.02	1.10
	Downward HQ to LQ	2796	1.33	1.28	1.38		1.16	1.11	1.20		1.14	1.10	1.19
	Other	726	1.37	1.27	1.47		1.21	1.13	1.31		1.20	1.12	1.30
Men		**No. of cases**	**HR**	**CI95%**			**HR1**	**CI95%**			**HR2**	**CI95%**	
	Constant SER	12100	ref	ref	ref		ref	ref	ref		ref	ref	ref
	Constant SER/HI	8831	0.63	0.61	0.64		0.68	0.66	0.70		0.68	0.66	0.70
	Constant BO	962	0.68	0.64	0.73		0.76	0.71	0.81		0.77	0.72	0.82
	Constant HMJH	642	0.80	0.74	0.86		0.86	0.80	0.94		0.88	0.81	0.95
	Constant SSE	1672	0.78	0.74	0.82		0.85	0.81	0.90		0.87	0.82	0.91
	Constant PE	2389	1.32	1.27	1.38		1.19	1.14	1.24		1.18	1.13	1.23
	Constant UE	121	1.49	1.25	1.78		1.42	1.19	1.70		1.34	1.12	1.61
	Constant HQ	2318	0.86	0.82	0.89		0.87	0.83	0.91		0.87	0.83	0.91

	Constant LQ	599	1.40	1.29	1.52		1.28	1.18	1.39		1.24	1.14	1.35
	Fluctuating HQ	1079	0.81	0.76	0.87		0.83	0.78	0.89		0.83	0.78	0.89
	Fluctuating LQ	86	1.72	1.39	2.12		1.46	1.18	1.81		1.37	1.10	1.70
	Fluctuating HQ and HMJH	455	0.75	0.68	0.82		0.79	0.72	0.87		0.80	0.73	0.88
	Fluctuating LQ and HMJH	335	1.04	0.93	1.16		1.04	0.94	1.16		1.05	0.94	1.17
	Fluctuating LQ and HQ	4222	1.02	0.99	1.06		0.98	0.95	1.02		0.98	0.95	1.01
	Within HQ	93	1.02	0.83	1.25		1.02	0.83	1.25		1.03	0.84	1.26
	Between HQ and HMJH	588	0.78	0.72	0.85		0.82	0.75	0.89		0.83	0.76	0.90
	Between LQ and HMJH	337	1.00	0.89	1.11		1.00	0.89	1.11		1.01	0.90	1.12
	Within LQ	25	1.94	1.31	2.87		1.79	1.21	2.65		1.74	1.17	2.57
	Upward LQ to HQ	2218	1.03	0.99	1.08		0.97	0.93	1.02		0.97	0.92	1.01
	Downward HQ to LQ	2237	1.02	0.98	1.07		0.99	0.95	1.04		0.99	0.94	1.03
	Other	911	1.01	0.95	1.08		1.00	0.94	1.07		1.01	0.94	1.08

Note 1: HR: not adjusted. HR1: adjusted for sex, age in 2005, level of education in 2005, marital status in 2005, country of birth, any mental disorder diagnosis before 2003. HR2: adjusted for adjusted for sex, age in 2005, level of education in 2005, marital status in 2005, country of birth, any mental disorder diagnosis before 2003, parental mental disorder diagnosis, and parental socioeconomic position during childhood.

Note 2: PER=precarious employment relationship; SSE= solo self-employment; HMJH=hybrid multiple job-holding; BO= business ownership; SER= standard employment relationship; SER/HI= standard employment relationship - high income; LQ=low quality; HQ=high quality

Table S7b. Hazard ratios (crude and adjusted) for substance use disorders for the total population (n= 2,743,764), women (n= 1,275,850) and men (n=1,467,914).

		Substance use disorders											
Total		No. of cases	HR	CI95%			HR1	CI95%			HR2	CI95%	
	Constant SER	12370	ref	ref	ref		ref	ref	ref		ref	ref	ref
	Constant SER/HI	5942	0.84	0.82	0.87		0.81	0.79	0.84		0.80	0.78	0.83
	Constant BO	605	1.13	1.04	1.22		0.92	0.85	1.00		0.93	0.86	1.01
	Constant HMJH	448	0.88	0.80	0.96		0.81	0.73	0.89		0.84	0.77	0.93
	Constant SSE	1133	1.20	1.13	1.27		0.94	0.88	1.00		0.98	0.92	1.04
	Constant PE	1705	1.40	1.33	1.47		1.30	1.23	1.37		1.28	1.21	1.34
	Constant UE	60	3.56	2.75	4.59		2.45	1.90	3.16		2.19	1.69	2.83
	Constant HQ	1549	0.99	0.94	1.04		0.92	0.87	0.97		0.92	0.87	0.97
	Constant LQ	394	1.99	1.80	2.20		1.63	1.47	1.80		1.56	1.41	1.72
	Fluctuating HQ	829	1.09	1.01	1.17		0.97	0.91	1.04		0.97	0.90	1.04
	Fluctuating LQ	65	2.82	2.21	3.60		2.07	1.62	2.64		1.90	1.49	2.43
	Fluctuating HQ and HMJH	296	0.84	0.74	0.94		0.77	0.69	0.87		0.79	0.71	0.89
	Fluctuating LQ and HMJH	213	1.28	1.12	1.47		1.13	0.99	1.30		1.15	1.00	1.32
	Fluctuating LQ and HQ	2948	1.15	1.10	1.19		1.06	1.01	1.10		1.05	1.01	1.09
	Within HQ	80	1.22	0.98	1.51		1.05	0.84	1.31		1.05	0.84	1.31
	Between HQ and HMJH	357	0.80	0.72	0.89		0.76	0.68	0.85		0.78	0.70	0.87
	Between LQ and HMJH	196	1.06	0.92	1.22		0.95	0.82	1.09		0.97	0.84	1.12
	Within LQ	14	2.10	1.24	3.54		1.67	0.99	2.82		1.63	0.96	2.75
	Upward LQ to HQ	1660	1.11	1.05	1.17		1.06	1.01	1.12		1.05	0.99	1.10
	Downward HQ to LQ	1792	1.30	1.24	1.37		1.19	1.14	1.26		1.18	1.12	1.24
	Other	501	1.06	0.97	1.16		0.96	0.88	1.05		0.96	0.88	1.05
		No. of cases	HR	CI95%			HR1	CI95%			HR2	CI95%	
	Constant SER	5245	ref	ref	ref		ref	ref	ref		ref	ref	ref

Women	**Constant SER/HI**	993	0.77	0.72	0.82		0.95	0.89	1.02		0.94	0.87	1.00
	Constant BO	80	1.18	0.94	1.47		1.26	1.01	1.57		1.27	1.01	1.58
	Constant HMJH	136	0.93	0.79	1.11		1.02	0.86	1.21		1.04	0.88	1.23
	Constant SSE	214	1.23	1.07	1.41		1.19	1.04	1.37		1.19	1.04	1.37
	Constant PE	521	1.36	1.24	1.49		1.29	1.17	1.41		1.27	1.16	1.40
	Constant UE	8	1.08	0.54	2.17		0.99	0.49	1.97		0.94	0.47	1.89
	Constant HQ	377	0.94	0.85	1.05		1.07	0.97	1.19		1.06	0.96	1.18
	Constant LQ	109	1.82	1.50	2.20		1.65	1.37	2.00		1.60	1.32	1.94
	Fluctuating HQ	174	0.95	0.82	1.11		1.07	0.92	1.25		1.06	0.91	1.23
	Fluctuating LQ	15	2.34	1.41	3.88		1.96	1.18	3.26		1.87	1.13	3.11
	Fluctuating HQ and HMJH	75	0.87	0.69	1.09		0.99	0.79	1.25		1.01	0.80	1.27
	Fluctuating LQ and HMJH	45	1.21	0.89	1.63		1.20	0.89	1.62		1.19	0.88	1.61
	Fluctuating LQ and HQ	806	1.08	1.01	1.16		1.06	0.99	1.15		1.05	0.98	1.14
	Within HQ	18	1.21	0.76	1.92		1.26	0.80	2.01		1.26	0.79	2.00
	Between HQ and HMJH	94	0.78	0.64	0.96		0.87	0.71	1.06		0.88	0.72	1.08
	Between LQ and HMJH	49	1.09	0.82	1.44		1.10	0.83	1.47		1.10	0.83	1.46
	Within LQ	2	1.48	0.37	5.93		1.33	0.33	5.30		1.27	0.32	5.08
	Upward LQ to HQ	540	1.13	1.03	1.23		1.12	1.03	1.23		1.11	1.01	1.21
	Downward HQ to LQ	524	1.30	1.19	1.43		1.28	1.17	1.41		1.27	1.16	1.39
	Other	103	1.01	0.83	1.23		1.03	0.85	1.26		1.03	0.84	1.25
Men		**No. of cases**	**HR**	**CI95%**			**HR1**	**CI95%**			**HR2**	**CI95%**	
	Constant SER	6902	ref	ref	ref		ref	ref	ref		ref	ref	ref
	Constant SER/HI	4886	0.61	0.59	0.63		0.77	0.74	0.80		0.76	0.73	0.79
	Constant BO	620	0.77	0.71	0.83		0.89	0.82	0.97		0.90	0.83	0.98
	Constant HMJH	303	0.66	0.59	0.74		0.78	0.70	0.88		0.81	0.72	0.91
	Constant SSE	1013	0.83	0.78	0.88		0.85	0.80	0.91		0.90	0.84	0.96
	Constant PE	1189	1.15	1.08	1.22		1.29	1.21	1.37		1.26	1.18	1.34
	Constant UE	97	2.10	1.72	2.57		2.15	1.75	2.63		1.99	1.63	2.44
	Constant HQ	1176	0.76	0.72	0.81		0.88	0.82	0.93		0.88	0.82	0.93

	Constant LQ	362	1.49	1.34	1.65		1.59	1.43	1.77		1.52	1.37	1.70
	Fluctuating HQ	638	0.85	0.78	0.92		0.94	0.87	1.02		0.94	0.87	1.02
	Fluctuating LQ	52	1.82	1.38	2.38		1.79	1.36	2.35		1.64	1.25	2.16
	Fluctuating HQ and HMJH	206	0.59	0.52	0.68		0.71	0.63	0.82		0.73	0.64	0.84
	Fluctuating LQ and HMJH	168	0.90	0.77	1.05		1.05	0.90	1.22		1.07	0.91	1.25
	Fluctuating LQ and HQ	2155	0.91	0.87	0.96		1.02	0.98	1.08		1.02	0.97	1.07
	Within HQ	52	1.00	0.76	1.31		1.08	0.82	1.42		1.09	0.83	1.43
	Between HQ and HMJH	266	0.63	0.55	0.71		0.75	0.66	0.85		0.77	0.68	0.87
	Between LQ and HMJH	157	0.81	0.69	0.95		0.93	0.79	1.09		0.95	0.81	1.12
	Within LQ	12	1.62	0.92	2.85		1.71	0.97	3.02		1.69	0.96	2.98
	Upward LQ to HQ	1102	0.90	0.84	0.96		1.01	0.95	1.08		1.00	0.94	1.07
	Downward HQ to LQ	1291	1.03	0.97	1.09		1.14	1.07	1.21		1.13	1.07	1.20
	Other	382	0.74	0.67	0.82		0.88	0.79	0.98		0.88	0.80	0.98

Note 1: HR: not adjusted. HR1: adjusted for sex, age in 2005, level of education in 2005, marital status in 2005, country of birth, any mental disorder diagnosis before 2003. HR2: adjusted for adjusted for sex, age in 2005, level of education in 2005, marital status in 2005, country of birth, any mental disorder diagnosis before 2003, parental mental disorder diagnosis, and parental socioeconomic position during childhood.

Note 2: PER=precarious employment relationship; SSE= solo self-employment; HMJH=hybrid multiple job-holding; BO= business ownership; SER= standard employment relationship; SER/HI= standard employment relationship - high income; LQ=low quality; HQ=high quality

Table S7c. Hazard ratios (crude and adjusted) for suicide attempt for the total population (n= 2,743,764), women (n= 1,275,850) and men (n=1,467,914).

		Suicide attempt											
		No. of cases	**HR**	**CI95%**			**HR1**	**CI95%**			**HR2**	**CI95%**	
Total	**Constant SER**	6350	ref	ref	ref		ref	ref	ref		ref	ref	ref
	Constant SER/HI	2864	0.79	0.76	0.83		0.85	0.81	0.90		0.86	0.82	0.90
	Constant BO	267	0.97	0.86	1.10		0.94	0.83	1.06		0.95	0.84	1.07
	Constant HMJH	255	0.97	0.86	1.10		0.98	0.87	1.12		0.99	0.87	1.12
	Constant SSE	474	0.97	0.89	1.07		0.95	0.86	1.04		0.95	0.86	1.04
	Constant PE	902	1.44	1.34	1.54		1.22	1.14	1.32		1.22	1.14	1.31
	Constant UE	20	2.31	1.49	3.59		1.94	1.25	3.01		1.76	1.13	2.73
	Constant HQ	829	1.03	0.96	1.11		1.01	0.94	1.09		1.01	0.94	1.09
	Constant LQ	160	1.57	1.34	1.84		1.34	1.15	1.57		1.30	1.11	1.52
	Fluctuating HQ	387	0.99	0.89	1.09		0.96	0.87	1.06		0.96	0.87	1.07
	Fluctuating LQ	19	1.59	1.01	2.50		1.30	0.83	2.04		1.21	0.77	1.90
	Fluctuating HQ and HMJH	198	1.09	0.95	1.26		1.10	0.95	1.26		1.01	0.96	1.27
	Fluctuating LQ and HMJH	109	1.31	1.08	1.58		1.22	1.01	1.47		1.21	1.00	1.47
	Fluctuating LQ and HQ	1454	1.10	1.04	1.16		1.01	0.95	1.26		1.01	0.95	1.07
	Within HQ	35	1.03	0.74	1.44		0.98	0.70	1.36		0.98	0.70	1.37
	Between HQ and HMJH	228	0.99	0.87	1.13		0.98	0.86	1.12		0.99	0.87	1.13
	Between LQ and HMJH	93	0.97	0.79	1.20		0.90	0.74	1.11		0.90	0.74	1.11
	Within LQ	5	1.44	0.60	3.47		1.25	0.52	3.00		1.22	0.51	2.94
	Upward LQ to HQ	826	1.08	1.00	1.16		0.99	0.92	1.06		0.98	0.91	1.05
	Downward HQ to LQ	833	1.18	1.10	1.27		1.08	1.01	1.17		1.08	1.01	1.17
	Other	264	1.09	0.97	1.24		1.01	0.90	1.15		1.01	0.90	1.15
		No. of cases	**HR**	**CI95%**			**HR1**	**CI95%**			**HR2**	**CI95%**	
	Constant SER	3659	ref	ref	ref		ref	ref	ref		ref	ref	ref
	Constant SER/HI	708	0.79	0.72	0.85		0.90	0.82	0.97		0.90	0.82	0.98

Women	**Constant BO**	43	0.91	0.67	1.22		0.95	0.70	1.28		0.96	0.71	1.29
	Constant HMJH	93	0.92	0.75	1.12		0.96	0.78	1.18		0.97	0.79	1.19
	Constant SSE	120	0.98	0.82	1.18		0.99	0.83	1.19		0.99	0.83	1.19
	Constant PE	345	1.29	1.16	1.44		1.15	1.03	1.29		1.14	1.02	1.28
	Constant UE	5	0.97	0.40	2.33		0.87	0.36	2.08		0.80	0.33	1.92
	Constant HQ	263	0.94	0.83	1.07		0.99	0.87	1.12		0.99	0.87	1.12
	Constant LQ	50	1.20	0.91	1.59		1.07	0.81	1.42		1.02	0.77	1.35
	Fluctuating HQ	128	1.00	0.83	1.19		1.05	0.88	1.25		1.05	0.88	1.25
	Fluctuating LQ	6	1.33	0.60	2.97		1.14	0.51	2.54		1.04	0.47	2.33
	Fluctuating HQ and HMJH	61	1.02	0.79	1.31		1.08	0.84	1.40		1.09	0.84	1.40
	Fluctuating LQ and HMJH	32	1.29	0.91	1.82		1.23	0.87	1.74		1.21	0.85	1.72
	Fluctuating LQ and HQ	562	1.01	0.98	1.17		1.02	0.93	1.11		1.02	0.93	1.11
	Within HQ	12	1.16	0.66	2.04		1.17	0.67	2.07		1.17	0.67	2.07
	Between HQ and HMJH	85	1.01	0.82	1.26		1.06	0.85	1.31		1.06	0.86	1.32
	Between LQ and HMJH	31	1.00	0.70	1.43		0.98	0.69	1.39		0.97	0.68	1.38
	Within LQ	2	2.12	0.53	8.48		1.84	0.46	7.37		1.73	0.43	6.93
	Upward LQ to HQ	326	0.98	0.87	1.10		0.93	0.83	1.04		0.92	0.82	1.03
	Downward HQ to LQ	355	1.27	1.14	1.42		1.20	1.07	1.33		1.19	1.07	1.33
	Other	72	1.02	0.81	1.29		0.99	0.78	1.25		0.98	0.78	1.24
Men		**No. of cases**	**HR**	**CI95%**			**HR1**	**CI95%**			**HR2**	**CI95%**	
	Constant SER	2606	ref	ref	ref		ref	ref	ref		ref	ref	ref
	Constant SER/HI	2124	0.70	0.66	0.74		0.84	0.79	0.89		0.85	0.80	0.90
	Constant BO	257	0.85	0.75	0.96		0.92	0.81	1.05		0.93	0.82	1.06
	Constant HMJH	143	0.83	0.70	0.98		0.95	0.80	1.12		0.95	0.81	1.13
	Constant SSE	410	0.89	0.80	0.98		0.96	0.87	1.07		0.97	0.87	1.07
	Constant PE	562	1.43	1.31	1.57		1.29	1.17	1.41		1.28	1.17	1.41
	Constant UE	23	1.32	0.87	1.99		1.34	0.89	2.01		1.30	0.86	1.95
	Constant HQ	561	0.97	0.88	1.06		1.00	0.91	1.09		1.00	0.91	1.10
	Constant LQ	144	1.56	1.32	1.85		1.47	1.24	1.74		1.45	1.22	1.71

	Fluctuating HQ	256	0.90	0.79	1.02		0.93	0.82	1.06		0.93	0.82	1.06
	Fluctuating LQ	17	1.56	0.97	2.52		1.43	0.89	2.31		1.37	0.85	2.22
	Fluctuating HQ and HMJH	123	0.94	0.78	1.12		1.05	0.87	1.25		1.05	0.87	1.26
	Fluctuating LQ and HMJH	81	1.17	0.94	1.47		1.21	0.97	1.51		1.21	0.97	1.51
	Fluctuating LQ and HQ	900	1.01	0.78	1.12		0.99	0.92	1.07		0.99	0.92	1.07
	Within HQ	18	0.92	0.58	1.45		0.91	0.57	1.45		0.92	0.58	1.46
	Between HQ and HMJH	146	0.91	0.77	1.08		0.98	0.83	1.16		0.99	0.83	1.17
	Between LQ and HMJH	73	0.99	0.79	1.26		1.01	0.80	1.28		1.01	0.80	1.28
	Within LQ	3	1.06	0.34	3.29		1.02	0.33	3.16		1.01	0.33	3.14
	Upward LQ to HQ	494	1.07	0.97	1.18		1.03	0.93	1.13		1.02	0.93	1.13
	Downward HQ to LQ	487	1.03	0.94	1.14		1.01	0.92	1.12		1.01	0.92	1.12
	Other	186	0.96	0.83	1.12		0.98	0.84	1.14		0.98	0.85	1.14

Note 1: HR: not adjusted. HR1: adjusted for sex, age in 2005, level of education in 2005, marital status in 2005, country of birth, any mental disorder diagnosis before 2003. HR2: adjusted for adjusted for sex, age in 2005, level of education in 2005, marital status in 2005, country of birth, any mental disorder diagnosis before 2003, parental mental disorder diagnosis, and parental socioeconomic position during childhood.

Note 2: PER=precarious employment relationship; SSE= solo self-employment; HMJH=hybrid multiple job-holding; BO= business ownership; SER= standard employment relationship; SER/HI= standard employment relationship - high income; LQ=low quality; HQ=high quality

Table S8a. Fully adjusted hazard ratios for specific outcomes (depression, anxiety, stress related disorders, alcohol and non-alcohol use disorders) for the total population (n=2,743,764).

	Depression				Anxiety				Stress related disorders				Alcohol use disorders				Non-alcoholic use disorders			
	cases	HR2	CI95%		cases	HR2	CI95%		cases	HR2	CI95%		cases	HR2	CI95%		cases	HR2	CI95%	
Constant SER	21032	ref	ref		17892	ref	ref		15085	ref	ref		10933	ref	ref		2187	ref	ref	
Constant SER/HI	7048	0.70	0.68	0.72	5736	0.71	0.69	0.73	5821	0.88	0.85	0.91	5565	0.83	0.80	0.85	628	0.61	0.56	0.67
Constant BO	542	0.77	0.71	0.84	460	0.80	0.73	0.88	414	0.96	0.87	1.06	562	0.94	0.86	1.02	69	0.81	0.63	1.03
Constant HMJH	669	0.89	0.83	0.96	549	0.89	0.82	0.97	584	1.17	1.07	1.27	397	0.83	0.75	0.91	73	0.91	0.72	1.15
Constant SSE	1207	0.89	0.84	0.94	993	0.90	0.85	0.97	851	1.02	0.95	1.09	1048	0.99	0.92	1.05	132	0.87	0.72	1.03
Constant PER	2957	1.27	1.23	1.33	2647	1.23	1.18	1.28	2384	1.32	1.27	1.38	1415	1.25	1.18	1.32	450	1.38	1.24	1.53
Constant UE	56	1.50	1.15	1.96	46	1.46	1.09	1.96	40	1.62	1.19	2.21	46	1.90	1.42	2.55	22	4.10	2.68	6.26
Constant HQ	2232	0.89	0.86	0.94	1866	0.88	0.84	0.93	1818	1.04	0.99	1.09	1405	0.93	0.88	0.99	232	0.81	0.71	0.93
Constant LQ	501	1.35	1.23	1.47	407	1.24	1.12	1.37	373	1.40	1.27	1.56	344	1.57	1.41	1.75	91	1.69	1.37	2.10
Fluctuating HQ	1039	0.87	0.81	0.92	898	0.89	0.83	0.95	824	1.00	0.93	1.07	742	0.97	0.90	1.04	139	0.99	0.84	1.18
Fluctuating LQ	65	1.33	1.04	1.71	55	1.32	1.01	1.72	60	1.77	1.37	2.29	48	1.63	1.22	2.16	25	3.32	2.23	4.93
Fluctuating HQ and HMJH	474	0.91	0.83	1.00	363	0.84	0.76	0.94	375	1.07	0.96	1.18	265	0.79	0.70	0.89	48	0.83	0.62	1.11
Fluctuating LQ and HMJH	306	1.15	1.03	1.29	261	1.15	1.02	1.30	256	1.38	1.22	1.56	188	1.14	0.98	1.32	39	1.15	0.84	1.59
Fluctuating LQ and HQ	4646	1.03	1.01	1.07	3985	1.01	0.97	1.04	3779	1.14	1.10	1.19	2570	1.04	1.00	1.09	608	1.07	0.98	1.18
Within HQ	101	0.97	0.80	1.18	94	1.06	0.87	1.30	79	1.13	0.90	1.41	76	1.12	0.89	1.40	10	0.78	0.42	1.46
Between HMJH and HQ	612	0.89	0.82	0.97	468	0.81	0.74	0.89	531	1.12	1.03	1.22	329	0.81	0.72	0.90	46	0.61	0.45	0.81
Between HMJH and LQ	340	1.14	1.03	1.27	273	1.07	0.95	1.21	265	1.27	1.13	1.44	170	0.95	0.81	1.10	38	1.05	0.76	1.45
Within LQ	22	1.79	1.18	2.71	14	1.30	0.77	2.20	17	2.00	1.25	3.23	13	1.73	1.01	2.99	2	1.16	0.29	4.65
Upward LQ to HQ	2728	1.01	0.97	1.06	2428	1.01	0.97	1.06	2279	1.13	1.08	1.18	144	1.05	0.99	1.11	331	0.99	0.88	1.11
Downward HQ to LQ	2591	1.09	1.04	1.13	2253	1.08	1.03	1.13	2021	1.17	1.11	1.22	1583	1.19	1.13	1.26	346	1.17	1.04	1.31
Other	800	1.05	0.98	1.12	693	1.05	0.97	1.13	686	1.27	1.17	1.37	446	0.97	0.88	1.07	103	1.05	0.86	1.29

Note 1: adjusted for adjusted for sex, age in 2005, level of education in 2005, marital status in 2005, country of birth, any mental disorder diagnosis before 2003, parental mental disorder diagnosis, and parental socioeconomic position during childhood.

Note 2: PER=precarious employment relationship; SSE= solo self-employment; HMJH=hybrid multiple job-holding; BO= business ownership; SER= standard employment relationship; SER/HI= standard employment relationship - high income; LQ=low quality; HQ=high quality

Table S8b. Fully adjusted hazard ratios for specific outcomes (depression, anxiety, stress related disorders, alcohol and non-alcohol use disorders) for women (n=1,275,850).

	Depression				Anxiety				Stress related disorders				Alcohol use disorders				Non-alcoholic use disorders			
	cases	HR2	CI95%		cases	HR2	CI95%		cases	HR2	CI95%		cases	HR2	CI95%		cases	HR2	CI95%	
Constant SER	14178	ref	ref		12142	ref	ref		10957	ref	ref		4449	ref	ref		1173	ref	ref	
Constant SER/HI	2532	0.76	0.72	0.79	1971	0.73	0.70	0.77	258	0.97	0.93	1.01	888	0.97	0.90	1.05	160	0.73	0.62	0.87
Constant BO	127	0.75	0.63	0.90	118	0.83	0.69	0.99	124	0.98	0.82	1.17	68	1.26	0.99	1.60	15	1.14	0.68	1.89
Constant HMJH	382	1.01	0.91	1.11	309	0.97	0.87	1.09	383	1.29	1.16	1.43	110	0.99	0.82	1.19	34	1.19	0.85	1.67
Constant SSE	412	0.89	0.81	0.98	391	1.00	0.90	1.11	358	1.06	0.95	1.17	175	1.14	0.98	1.32	46	1.23	0.92	1.66
Constant PER	1707	1.29	1.22	1.35	1556	1.26	1.20	1.34	1525	1.35	1.28	1.43	409	1.24	1.12	1.38	158	1.33	1.12	1.58
Constant UE	35	1.28	0.92	1.80	26	1.14	0.77	1.67	31	1.51	1.06	2.15	8	1.14	0.57	2.28	2	0.91	0.23	3.65
Constant HQ	1051	0.94	0.88	1.00	834	0.88	0.82	0.94	974	1.06	0.99	1.13	337	1.13	1.01	1.26	67	0.82	0.64	1.05
Constant LQ	282	1.38	1.23	1.56	229	1.24	1.09	1.42	230	1.39	1.21	1.58	86	1.55	1.25	1.92	31	1.67	1.16	2.40
Fluctuating HQ	469	0.91	0.83	1.00	413	0.96	0.87	1.06	431	1.03	0.94	1.14	144	1.04	0.88	1.23	43	1.14	0.84	1.55
Fluctuating LQ	33	1.36	0.97	1.92	23	1.08	0.72	1.62	30	1.57	1.09	2.24	11	1.67	0.92	3.02	4	1.82	0.68	4.88
Fluctuating HQ and HMJH	217	0.98	0.86	1.13	174	0.94	0.81	1.10	197	1.12	0.97	1.29	67	1.07	0.84	1.36	16	0.97	0.59	1.59
Fluctuating LQ and HMJH	119	1.07	0.89	1.28	113	1.16	0.97	1.40	120	1.34	1.12	1.60	39	1.23	0.89	1.71	6	0.66	0.29	1.47
Fluctuating LQ and HQ	2459	1.06	1.02	1.11	2168	1.05	1.00	1.10	2237	1.17	1.12	1.22	666	1.06	0.98	1.15	199	1.01	0.88	1.17
Within HQ	43	1.01	0.75	1.36	42	1.16	0.85	1.57	39	1.17	0.85	1.60	16	1.32	0.81	2.16	4	1.22	0.46	3.26
Between HMJH and HQ	307	0.96	0.85	1.07	247	0.91	0.80	1.03	314	1.22	1.09	1.36	85	0.94	0.76	1.17	14	0.57	0.34	0.97
Between HMJH and LQ	163	1.24	1.06	1.44	138	1.20	1.01	1.41	151	1.41	1.20	1.66	42	1.12	0.83	1.53	10	0.93	0.50	1.73
Within LQ	8	1.61	0.80	3.22	5	1.15	0.48	2.77	3	0.78	0.25	2.42	2	1.56	0.39	6.23	0	NA	NA	NA
Upward LQ to HQ	156	1.03	0.98	1.09	1402	1.04	0.98	1.10	1433	1.14	1.08	1.21	453	1.13	1.02	1.25	129	1.02	0.85	1.22
Downward HQ to LQ	1378	1.11	1.05	1.17	1262	1.15	1.09	1.22	1247	1.23	1.16	1.31	448	1.31	1.19	1.44	129	1.23	1.02	1.47
Other	311	1.02	0.91	1.14	302	1.12	1.00	1.26	345	1.37	1.23	1.53	87	1.05	0.84	1.30	29	1.16	0.80	1.68

Note 1: adjusted for adjusted for sex, age in 2005, level of education in 2005, marital status in 2005, country of birth, any mental disorder diagnosis before 2003, parental mental disorder diagnosis, and parental socioeconomic position during childhood.

Note 2: PER=precarious employment relationship; SSE= solo self-employment; HMJH=hybrid multiple job-holding; BO= business ownership; SER= standard employment relationship; SER/HI= standard employment relationship - high income; LQ=low quality; HQ=high quality

Table S8c. Fully adjusted hazard ratios for specific outcomes (depression, anxiety, stress related disorders, alcohol and non-alcohol use disorders) for men (n= 1,467,914).

	Depression				Anxiety				Stress related disorders				Alcohol use disorders				Non-alcoholic use disorders			
	cases	HR2	CI95%		cases	HR2	CI95%		cases	HR2	CI95%		cases	HR2	CI95%		cases	HR2	CI95%	
Constant SER	6576	ref	ref		5517	ref	ref		3929	ref	ref		6281	ref	ref		980	ref	ref	
Constant SER/HI	4409	0.85	0.80	0.90	3711	0.65	0.62	0.68	3163	0.76	0.72	0.80	4621	0.78	0.75	0.81	455	0.59	0.52	0.66
Constant BO	482	0.93	0.82	1.06	414	0.75	0.68	0.83	345	0.87	0.78	0.97	583	0.92	0.84	1.00	61	0.76	0.59	0.98
Constant HMJH	345	0.95	0.81	1.13	258	0.80	0.70	0.91	241	1.04	0.91	1.18	278	0.81	0.72	0.91	37	0.79	0.57	1.10
Constant SSE	913	0.97	0.87	1.07	691	0.82	0.76	0.89	548	0.91	0.83	0.99	954	0.91	0.85	0.97	106	0.84	0.69	1.03
Constant PER	1259	1.28	1.17	1.41	1101	1.14	1.07	1.22	869	1.22	1.13	1.31	1009	1.23	1.15	1.32	294	1.45	1.27	1.66
Constant UE	68	1.30	0.86	1.95	52	1.25	0.95	1.65	47	1.55	1.16	2.07	82	1.88	1.51	2.35	23	2.86	1.89	4.33
Constant HQ	121	1.00	0.91	1.10	1019	0.84	0.79	0.90	862	0.97	0.90	1.04	108	0.89	0.83	0.95	160	0.79	0.67	0.93
Constant LQ	322	1.45	1.22	1.71	257	1.15	1.01	1.30	223	1.32	1.15	1.51	325	1.56	1.39	1.74	79	1.72	1.36	2.17
Fluctuating HQ	564	0.93	0.82	1.06	479	0.82	0.75	0.90	378	0.89	0.80	0.99	578	0.94	0.86	1.03	93	0.95	0.77	1.18
Fluctuating LQ	39	1.37	0.85	2.22	41	1.40	1.02	1.91	34	1.52	1.08	2.14	39	1.41	1.03	1.94	21	3.17	2.05	4.90
Fluctuating HQ and HMJH	246	0.79	0.70	0.90	184	0.73	0.63	0.84	181	1.03	0.97	1.09	185	0.72	0.62	0.84	31	0.82	0.57	1.17
Fluctuating LQ and HMJH	181	1.21	0.97	1.51	139	0.97	0.82	1.15	140	1.30	1.09	1.54	149	1.05	0.89	1.24	32	1.26	0.88	1.80
Fluctuating LQ and HQ	2181	0.96	0.91	1.01	1836	0.92	0.88	0.97	1517	1.04	0.98	1.10	1917	1.02	0.96	1.07	410	1.12	0.99	1.26
Within HQ	44	0.92	0.58	1.46	44	1.07	0.79	1.43	35	1.18	0.84	1.64	50	1.16	0.88	1.53	7	0.97	0.46	2.05
Between HMJH and HQ	246	0.99	0.83	1.17	184	0.73	0.64	0.83	181	0.99	0.87	1.13	185	0.77	0.68	0.88	37	0.75	0.54	1.05
Between HMJH and LQ	184	1.01	0.80	1.28	138	0.92	0.78	1.09	117	1.05	0.87	1.26	136	0.91	0.77	1.09	30	1.18	0.82	1.70
Within LQ	13	1.01	0.33	3.14	11	1.64	0.91	2.96	14	2.77	1.64	4.69	11	1.75	0.97	3.17	2	1.53	0.38	6.15
Upward LQ to HQ	1144	1.02	0.93	1.13	1004	0.94	0.88	1.01	831	1.06	0.98	1.14	973	1.00	0.93	1.07	199	0.98	0.84	1.15
Downward HQ to LQ	1212	1.01	0.92	1.12	999	0.96	0.89	1.02	780	1.02	0.94	1.10	1158	1.13	1.06	1.21	218	1.14	0.99	1.33
Other	494	0.98	0.85	1.14	385	0.94	0.84	1.04	348	1.12	1.01	1.26	343	0.89	0.80	0.99	75	1.04	0.82	1.32

Note: adjusted for adjusted for sex, age in 2005, level of education in 2005, marital status in 2005, country of birth, any mental disorder diagnosis before 2003, parental mental disorder diagnosis, and parental socioeconomic position during childhood.

Note 2: PER=precarious employment relationship; SSE= solo self-employment; HMJH=hybrid multiple job-holding; BO= business ownership; SER= standard employment relationship; SER/HI= standard employment relationship - high income; LQ=low quality; HQ=high quality

Figure S1. Flow chart of the (total) study population

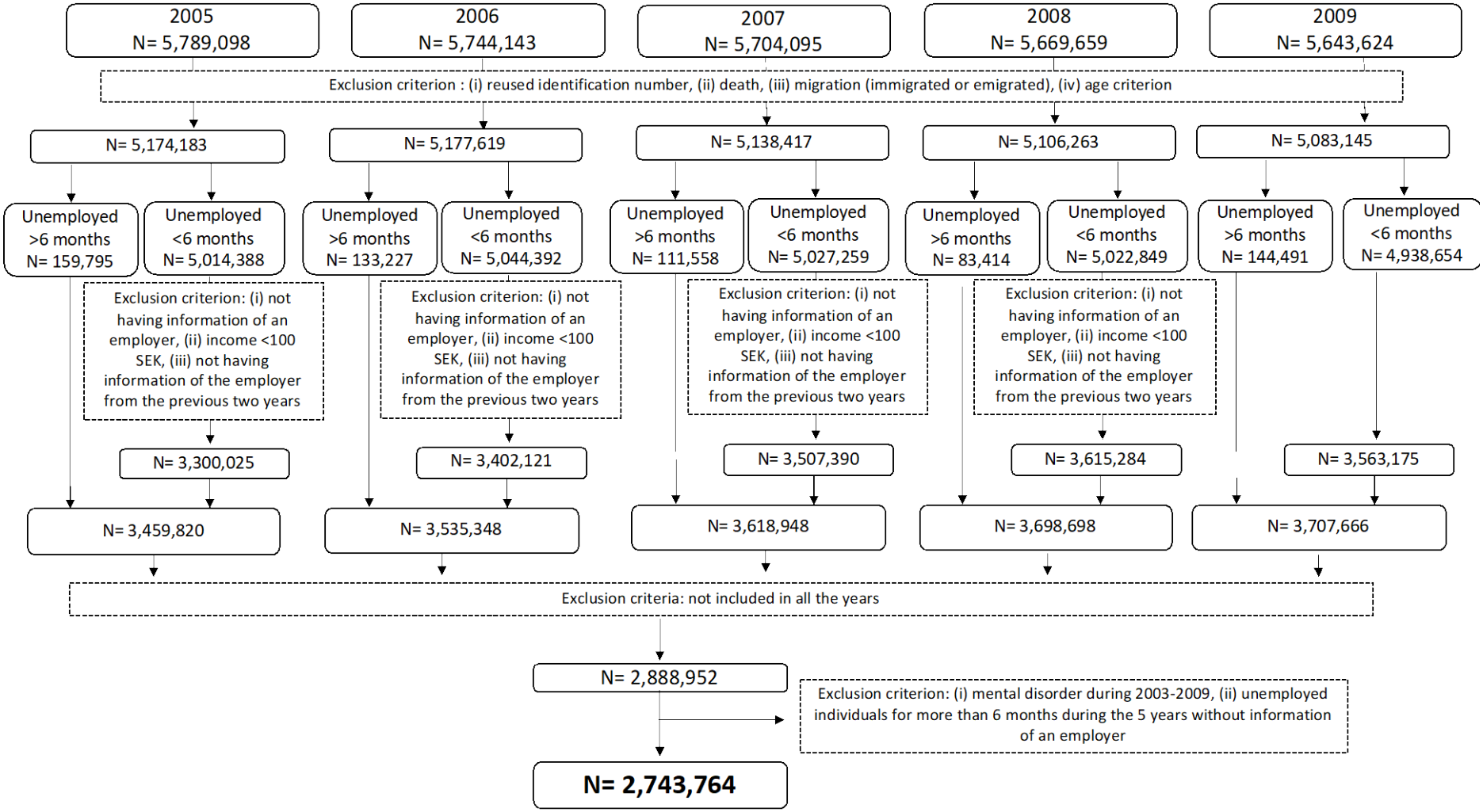
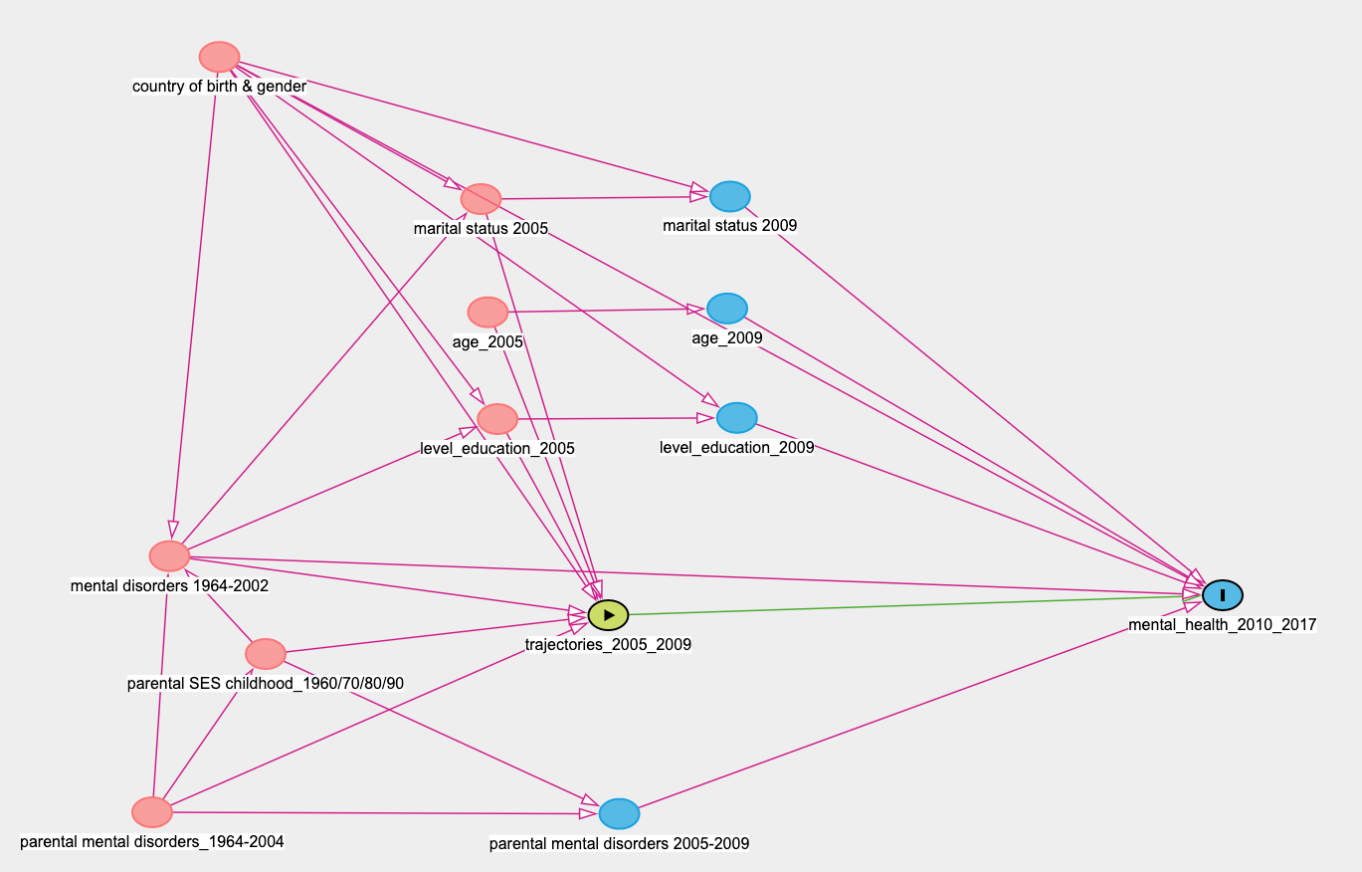


Figure S2. Directed Acyclic Graph (DAG) for the effect of employment trajectories on mental health.



The minimal sufficient adjustment sets for estimating the total effect of the low-quality employment trajectories on mental health (mental disorders and/or suicide attempt) are several, and for this paper we have chosen the following one: age, country of birth, gender, level of education, marital status, mental disorder (diagnosis) occurring before 2003 (please note that individuals with a diagnose of any mental disorder during 2003-2009 are excluded from the study population), parental socioeconomic position during the childhood of individuals, any parental mental disorder (diagnosis) occurring before exposure measurement.

Textor J, van der Zander B, Gilthorpe MS, Liśkiewicz M, Ellison GTH. Robust causal inference using directed acyclic graphs: the R package 'dagitty.' Int J Epidemiol. 2017 Jan 15;dyw341