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Personality and Life-Cycle Labour Earnings

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Personality and life-cycle labour earnings

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Abstract

Labour market inequality over the life cycle reflects differences not only in wages, but also in employment stability, and career progression. While a large literature documents that personality traits predict wages and other labour market outcomes, little is known about how they shape accumulated earnings over the working life. This paper studies the relationship between personality traits, risk preferences, locus of control, and accumulated labour earnings up to age 45. We combine German administrative social-security records with long-running survey data, allowing us to link complete employment and earnings biographies to established measures of personality.

We show that personality traits are strongly associated with long-run earnings, but through different mechanisms. Conscientiousness and an internal locus of control are positively related to accumulated earnings, whereas agreeableness, neuroticism, and, particularly for women, extraversion are negatively associated with earnings accumulation. Decomposing accumulated earnings into wage and employment components reveals substantial heterogeneity in the channels through which personality shapes long-run outcomes. The results highlight that the role of personality for economic success cannot be fully understood from cross-sectional wage measures alone.

JEL codes: D91, J31, J60
Keywords: life cycle, earnings, personality traits, Big Five, employment trajectories

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1 Introduction

A better understanding of wage determinants has motivated a large body of empirical work. This literature has established that not only cognitive abilities and formal education predict wages and earnings but also non-cognitive skills such as personality traits, risk preferences, and locus of control are important determinants of labour market outcomes. However, measures like daily wages or annual earnings are of transitory nature and do not take into account life-cycle dynamics such as periods of unemployment or wage growth. Understanding how non-cognitive traits impact the cumulative earnings individuals receive over their working lives requires to move beyond these snapshots and to examine how personality traits shape long-run economic trajectories. As different personality traits may simultaneously affect wage growth, job mobility, and employment stability in opposing directions, analyses based solely on point-in-time wages may provide an incomplete or even misleading picture of long-run economic success.

Accumulated earnings are particularly relevant from a welfare and public policy perspective because they reflect the total economic resources individuals obtain over their working lives, incorporating not only wages but also employment stability, unemployment risk, and labour force attachment.

Seminal contributions by Bowles et al. (2001) and Heckman et al. (2006) integrate non-cognitive skills into models of schooling and earnings, showing that personality and preferences shape wages beyond cognitive ability. Almlund et al. (2011) formalize this framework for life-cycle analysis. Most studies analyse the Big Five personality traits and their impact on point-in-time wages (Nyhus and Pons, 2005; Mueller and Plug, 2006; Heineck and Anger, 2010; Heineck, 2011; Becker et al., 2012). Recent work by Izadi and Tuhkuri (2025) shows that returns to specific personality traits can evolve over time while Flinn et al. (2025) highlight channels such as wage bargaining through which personality traits affect earnings. However, all of these papers focus on point-in-time earnings rather than on accumulation of earnings over the life cycle. At the same time, Beckmannshagen et al. (2026) demonstrate that annual earnings provide an imperfect proxy for life-cycle earnings: the role of earnings determinants depends substantially on the age at which earnings are measured.

This paper moves beyond the point-in-time perspective examining how personality traits, risk attitudes, and locus of control jointly predict earnings accumulation across the life-cycle. Importantly, accumulated earnings reflect not only wage levels but also employment stability, unemployment risk, and career interruptions. We therefore analyse how personality traits shape both wage dynamics and labour force attachment over the life cycle. For both channels we examine underlying dynamics and explore the role of educational and occupational selection.

Our analysis comprises three main contributions. First, we provide comprehensive evidence on how multiple non-cognitive dimensions jointly predict accumulated earnings, extending the cross-sectional focus of the existing literature with a life-cycle perspective. We pay particular attention to gender differences, as personality traits may shape wage dynamics and labour force attachment differently for men and women. Second, we quantify how personality relates to the wage versus the employment channel, uniting research on the relationship between personality and (a) earnings, and (b) employment dynamics. We further decompose these channels into career start and subsequent labour market dynamics, enabling us to study how personality shapes initial sorting, wage growth, and

employment stability over the life cycle. In addition, we quantify the explanatory power of personality traits in earnings accumulation over the life cycle and assess the relative contribution of the education channel in wage and employment components. Third, we map psychological traits onto empirically observed career trajectories. We shed light on the behavioural roots of long-run wage mobility by showing how personality traits are associated with persistent top earners, upward mobility, stable middle-income careers, or persistent low earnings and downward mobility, separately for men and women. We further examine how personality relates to labour market frictions such as job mobility, non-employment spells, and benefit receipt over the life cycle.

Our analyses are based on a novel data source that links German administrative social security data with multi-topic survey data. The linked data allow us to follow comprehensive employment biographies and construct precise measures of earnings accumulated over the life cycle combined with established survey measures of personality such as the Big Five inventory. We first regresses accumulated earnings on the Big Five traits, risk preferences, locus of control, and a set of controls. We then decompose accumulated earnings into average wages and years of experience and shed light on the link between personality and the dynamics in each of these channels by systematically investigating the association of personality with the career start and its dynamics up to mid career. By controlling for educational and occupational choices and intensive margin of labour supply, we document the extent to which these decisions determine the role of personality in earnings accumulation over the life cycle. Moreover, we study individual career pathways, by analysing stylised wage trajectories, job-transitions, non-employment duration, and benefit receipt. Finally, we investigate the explanatory power of personality traits and allow for non-linearities in associations.

Our results show that personality traits are strongly related to long-run labour market performance, but through very different mechanisms. Some traits primarily shape employment stability and labour force attachment, while others mainly affect wages, job mobility, and career progression. Moreover, the implications of personality for long-run career trajectories differ substantially between men and women. These patterns cannot be fully understood from cross-sectional wage measures alone.

We find that traits such as conscientiousness and an internal locus of control are positively associated with accumulated earnings over the life cycle, whereas agreeableness, neuroticism, and partially extraversion are detrimental for earnings accumulation. Openness and willingness to take risk are ambiguous in their associations. The positive association of conscientiousness operates mostly through stronger labour force attachment, as more conscientious individuals are employed for larger share of their life cycle and for longer hours and thus accumulate more earnings. Conscientiousness is also more beneficial for women than for men, as the positive association with employment particularly translates into higher accumulated earnings over the life cycle for women. By contrast, the positive relation between accumulated earnings and locus of control operates through both margins, in particular through wages and educational sorting. This association is stronger for men than for women. On the negative side, agreeableness and neuroticism also operate through both channels, while extaversion mainly operates the wage channel due to counteracting effects in the employment dynamics. Educational selection matters for the association of wages with neuroticism and extraversion. The associations with extraversion are driven by women. Openness is negatively associated with employment, for both men and women, but is positively related with women's wage development through educational and occupational selection. Willingness to take risk is

negatively associated with employment stability, leading to lower employment rates for men.

The analysis of full-time wage trajectories shows that an internal locus of control is associated with more favourable career paths, including persistent top earnings and upward mobility, while agreeableness and neuroticism are linked to weaker trajectories and lower probabilities of remaining at the top of the wage distribution. Conscientiousness is mainly associated with stable middle-income careers for men. Extraversion and openness matter primarily for women, with extraversion related to less favourable and openness to more favourable wage progression.

Our main analyses treat the association between personality traits and life-cycle labour market outcomes as linear. Complementary analysis of potential non-linearities show that the assumption of strict linearity does not hold in all cases, however they generally imply monotonicity for the relation between accumulated earnings and personality traits.

The remainder of the paper is structured as follows: Section 2 reviews the existing literature on accumulated life-cycle earnings as well as on the implication of personality traits for labour market outcomes, outlining how we combine these two strands of literature. Section 3 introduces our data source, presents the key variables of for our analyses and describes our analysis sample. Section 4 comprises our empirical analysis, first focusing on the main outcomes of accumulated earnings over the life cycle and then analysing underlying mechanisms. Section 5 discusses the the empirical strategy and its underlying assumptions and summarises the main findings.

2 Literature

A growing literature studies earnings over the life cycle and documents that cross-sectional wage measures conceal substantial heterogeneity in long-run labour market outcomes. Instead, accumulated or lifetime earnings present a more adequate measure of the economic resources that individuals obtain in their working life. Using German pension insurance data, Bönke et al. (2015) show that inequality in lifetime earnings is substantially lower than cross-sectional earnings inequality, yet has increased markedly across cohorts. They find that West German men born in the early 1960s face about 85% more lifetime earnings inequality than their fathers, with longer unemployment spells among individuals at the bottom of the distribution explaining between 20% and 40% of this increase. These results underscore the importance of employment histories and labour market attachment for accumulated earnings. Beckmannshagen et al. (2026) extend the analyses of lifetime earnings inequality and show that depending on age of measurement the role of earnings determinants can substantially differ when cumulative instead of point-in-time earnings are examined. Using U.S. administrative data, Guvenen et al. (2022) document strong cohort trends in lifetime earnings, with declining median lifetime earnings for men and rising earnings for women across entry cohorts. They show that within-gender lifetime inequality has increased substantially, largely driven by dispersion at labour market entry, although their sample excludes individuals with weak labour market attachment. Garbinti et al. (2025) show that gender differences in lifetime earnings in France are driven primarily by employment intensity rather than participation per se. Evidence on earnings growth further highlights pronounced heterogeneity in labour market trajectories. Ozkan et al. (2023) document large differences in

earnings growth between ages 25 and 55, with top lifetime earners experiencing very steep earnings growth while bottom earners see almost no growth. They show that these differences are closely related to job-switching behaviour and unemployment-related mobility, emphasizing the role of employment stability and job ladder dynamics. Related work using Norwegian population data provides causal evidence on the life-cycle effects of education on earnings (Bhuller et al., 2017). Zühlke et al. (2022) study the role of education on earnings accumulation in Germany and show that individuals with a university degree only overtake those with vocational training in lifetime labour income after age 55, and that accounting for drop-out risks and educational upgrading largely eliminates lifetime earnings differences by initial education choice. Taken together, this literature highlights that accumulated earnings are shaped by both wage dynamics and labour force participation over the life cycle, yet remains largely silent on the role of non-cognitive traits in explaining heterogeneity in lifetime earnings trajectories.

Broadening the classic human capital perspective, a foundational literature has established that also non-cognitive skills are important determinants of labour market success. Bowles et al. (2001) formalize how preferences and personality traits affect effort provision and earnings in principal–agent relationships. Heckman et al. (2006) provide early structural evidence that non-cognitive skills predict wages beyond cognitive ability, even after accounting for schooling choices. Almlund et al. (2011) survey the empirical literature and conclude that traits related to conscientiousness and emotional stability play a particularly important role in shaping wages and job performance. More recent summaries confirm that the investigation of multidimensional skills, including personality traits, remains an active and evolving area of research (Woessmann, 2024). Most empirical studies in this tradition focus on wages measured at a point in time and therefore abstract from employment histories, occupational choices, and earnings accumulation.

Indeed, a substantial empirical literature examines the relationship between personality traits and wages, typically focusing on the Big Five. Meta-analytical evidence summarized by Alderotti et al. (2023) suggests robust positive associations between earnings and openness, conscientiousness, and extraversion, and negative associations with agreeableness and neuroticism, although effect sizes vary by gender, ethnicity, and study quality. Early studies using survey data find heterogeneous associations. Using Dutch data, Nyhus and Pons (2005) find that emotional stability is positively related to wages for both men and women, while agreeableness is negatively associated with wages for women, and that the role of conscientiousness varies over the career. In a small U.S. sample, Mueller and Plug (2006) show that, conditional on IQ, lower agreeableness and higher openness and emotional stability are associated with higher wages for men, while conscientiousness and openness matter for women. Studies using larger panel datasets and more flexible specifications emphasize heterogeneity across the wage distribution and over time. Using SOEP data, Heineck and Anger (2010) and Heineck (2011) account for non-linearities and measurement error and find gender-specific effects of the Big Five and locus of control on wages. Piatek and Pinger (2016) show that locus of control affects wages primarily through education. Izadi and Tuhkuri (2025) document that the relationship between extraversion, conscientiousness, and wages strengthens over time relative to cognitive skills. Another strand studies wage gaps using Oaxaca–Blinder type decompositions. Studies based on panel survey data such as the SOEP, BHPS, or HILDA data find that personality traits explain a non-negligible share of gender wage gaps, particularly at the upper end of the wage distribution (Braakmann, 2009; Collischon, 2021; Flinn et al., 2018; Nyhus and Pons, 2012; Risse et al., 2018). Structural models further

highlight wage bargaining as an important channel through which personality affects earnings (Flinn et al., 2025). While this literature provides strong evidence that personality traits are related to wages, it largely abstracts from occupational sorting and employment histories over time.

Several studies explicitly link personality traits to occupational choice and sorting, suggesting an additional channel through which personality may affect earnings trajectories. Using HILDA data, Cobb-Clark and Tan (2011) show that personality traits and locus of control influence sorting into certain occupations, although occupational sorting itself is not the main driver of the gender wage gap and can even confer a wage advantage to women. Ham et al. (2009) find that conscientiousness and parental background affect selection into white-collar versus blue-collar occupations, conditional on education. These findings indicate that personality traits shape career starting points and occupational environments, which may in turn affect wage growth, job stability, and long-run earnings.

A complementary literature shows that personality traits also shape employment dynamics, labour force participation, and job stability. Using hazard models and job search frameworks, several studies find that locus of control and conscientiousness are associated with job mobility, reservation wages, and job finding rates (Ahn, 2015; Caliendo et al., 2015). Cuesta and Budria (2017) show that agreeableness and external locus of control increase unemployment risk, while conscientiousness reduces it, and that personality traits also affect unemployment state dependence. Additional evidence documents heterogeneous effects on unemployment duration and job-to-job transitions (Uysal and Pohlmeier, 2011; Viinikainen and Kokko, 2012; McGee, 2015). Other studies highlight links between personality traits and labour force participation, low-pay persistence, and work attendance. Wichert and Pohlmeier (2010) show that conscientiousness is particularly relevant for female labour force participation, while Schnitzlein and Stephani (2016) find that locus of control predicts both entry into and persistence in low-paid employment. Störmer and Fahr (2013) document that conscientiousness and agreeableness are associated with lower absence probabilities. Together, this evidence suggests that personality traits affect not only wages but also occupational sorting, employment stability, and labour market attachment—key components of accumulated earnings.

Only few studies examine how personality traits relate to earnings over the life cycle rather than at a single point in time. Gensowski (2018), using a high-IQ U.S. sample, analyse earnings observed at different ages and show that the association between personality traits and earnings varies systematically over the life cycle, with effects generally strongest between ages 40 and 60. These findings indicate that personality-related earnings differences may accumulate over time, but the study does not directly examine accumulated or lifetime earnings, nor does it decompose accumulated earnings into wage and employment components.

Interpreting long-run associations between personality and earnings requires understanding the stability of personality traits. While personality is not immutable, the literature suggests substantial stability over adulthood. Cobb-Clark and Schurer (2012) find that intra-individual changes in personality are generally small and unrelated to adverse life events. Fitzenberger et al. (2022) document stable life-cycle profiles in personality traits between ages 25 and 60, with gradual and systematic changes rather than abrupt shifts. Other studies show that locus of control and some traits may change at younger or older ages, potentially leading to attenuation bias when using lagged measures (Cobb-Clark

and Schurer, 2013). Labour market shocks can induce changes in specific traits, particularly openness, although effects are heterogeneous (Anger et al., 2017). Overall, the literature supports the use of adult personality measures to study long-run labour market outcomes, while highlighting important measurement challenges (Golsteyn and Schildberg-Hörisch, 2017; Todd and Zhang, 2020).

In sum, existing research documents substantial heterogeneity in accumulated earnings over the life cycle and shows that personality traits are associated with wages, occupational sorting, and employment outcomes. However, these literatures remain largely disconnected. Most studies on personality focus on point-in-time wages or isolated labour market transitions, while the lifetime earnings literature abstracts from non-cognitive traits. This paper bridges these strands by analysing how personality traits relate to accumulated earnings over the working life, explicitly decomposing lifetime earnings into average earnings conditional on employment and labour force participation, and by examining the mechanisms—such as occupational sorting, wage growth, employment stability, and career trajectories—through which personality shapes long-run earnings.

3 Data and sample

3.1 Data Source

The data source for our empirical analyses is SOEP-CMI-ADIAB 7523 v1 (Antoni et al., 2026). SOEP-CMI-ADIAB originates from a record linkage between the Integrated Employment Biographies (IEB), an administrative dataset provided by the Institute for Employment Research (IAB), and the German Socio-Economic Panel (SOEP), a large multi-topic household panel survey (Goebel et al., 2019).

The combined dataset provides a unique opportunity to jointly examine long-run employment and earnings biographies on the one hand, and personality traits on the other. The administrative social-security data allow us to observe complete labour market biographies from 1975 to 2023, including information on employment status, daily earnings, and occupation. At the same time, the SOEP contains a broad range of individual and household characteristics, such as educational attainment and parenthood status. Most importantly for our analysis, the SOEP includes information on respondents' personality traits, locus of control, and risk preferences.

3.2 Key variable definitions

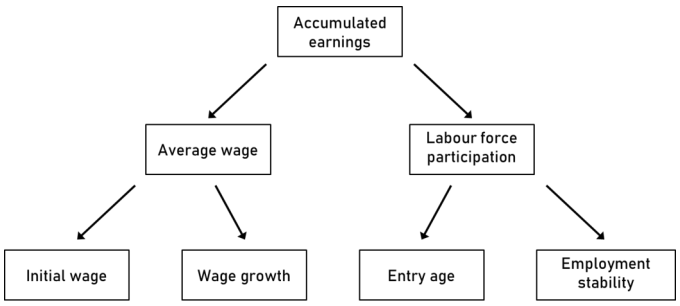
We use the administrative component of SOEP-CMI-ADIAB to construct accumulated earnings, which we define as cumulative earnings from dependent employment received between ages 18 and 45.

Ideally, lifetime earnings would be measured over the complete working life up to retirement age. However, after balancing the trade-off between the length of the employment biography and the available sample size, we focus on earnings accumulated up to age 45. As shown by Bönke et al. (2015), rank correlations of earnings across consecutive years are approximately 0.95 throughout individuals' forties and remain at this high level until the onset of early retirement. Therefore, accumulated earnings up to age 45 provide a strong predictor of lifetime earnings over the complete working life.

Accumulated earnings are determined jointly by labour force participation and wages. To understand how individuals accumulate earnings over the life cycle, we decompose accumulated earnings into total days in employment between ages 18 and 45 and average daily wages during employment periods. The following variables therefore constitute the main dependent variables in our empirical analyses:

- **Accumulated earnings**: $AccE_i = \sum_{d}^{\bar{T}} y_{id}$ being the cumulative sum of daily earnings, y_{id}, obtained by individual i up to age $\bar{T} = 45$. Both daily and accumulated earnings are adjusted for inflation and expressed in 2015 euros.
- **Lifetime days employed**: $AccEmp_i = \sum_{d}^{\bar{T}} empday_{id}$, being the cumulative number of days spent in regular[1] employment, up to age $\bar{T} = 45$.
- **Average earnings**: $\bar{y}_i = \frac{\sum_d y_{id}}{AccEmp_i}$, with y_{id} earnings, y, obtained by individual i, on day d.

Figure 1: Components of accumulated earnings



To understand the dynamics of wages and employment, we further decompose labour force participation into age at first regular employment and subsequent employment stability. Likewise, we decompose average wages into initial wages at labour market entry and subsequent wage growth. Figure 1 illustrates the general intuition underlying these stages of the analysis.

To examine lifetime earnings jointly with personality traits, we use the following explanatory variables:

- **Big 5 personality traits**, measured in the SOEP using a short 15-item inventory from which conscientiousness, openness, extraversion, neuroticism, and agreeableness are derived through factor analysis. The Big Five were measured in 2005, 2009, 2013 (2012 for some subsamples), 2017, and 2019. When multiple measurements are available, we calculate individual-specific averages.
- **Willingness to take risks**, self-assessed on an 11-point Likert scale and measured in 2004, 2006, and annually since 2008. When multiple measurements are available, we calculate individual-specific averages.

[1] "regular" employment is defined as employment with regular social security contributions,not vocational training or mini jobs/marginal employment.

- **Locus of control**, based on a 10-item inventory administered in 1999, 2005, 2010, 2015, and 2020. The index for internal locus of control is constructed using factor analysis (following Caliendo et al. (2022)). Again, when multiple measurements are available, we calculate individual-specific averages.

For our regression analyses, all seven explanatory variables are standardised to have a mean of zero and a standard deviation of one in order to facilitate interpretation of the coefficients.

3.3 Sample restrictions and description

For our analyses, we restrict the sample to individuals for whom accumulated earnings up to age 45 can be observed and for whom reliable information on personality traits is available. Because of this age restriction, we focus on individuals born between 1957 and 1978. Individuals born before 1957 reached adulthood before 1975, the first year covered by the Integrated Employment Biographies. Consequently, we would not observe their early labour market histories and would underestimate their accumulated earnings if they were included. Individuals born after 1978 do not reach age 45 by 2023, the final year covered by the data. Consequently, accumulated earnings up to age 45 cannot be calculated for these individuals.

Another potential source of bias arises from incomplete earnings biographies due to migration. We therefore exclude individuals who have not accumulated positive earnings by age 28. This restriction still allows us to include individuals with tertiary education while excluding those who likely had not yet entered the German labour market. Effectively, these birth cohort and age restrictions also exclude individuals from the former German Democratic Republic, for whom earnings are only observed from 1992 onwards.

The Integrated Employment Biographies do not include earnings from civil-service employment or self-employment. Consequently, gaps in employment histories could reflect non-employment, self-employment, or civil-service employment. However, the SOEP allows us to identify individuals who worked as civil servants or self-employed. We therefore exclude individuals who were ever employed in either of these categories.

As discussed in Section 3.2, personality traits and locus of control are only measured intermittently in the SOEP. Consequently, we exclude individuals with missing information on any of these measures. When multiple measurements are available, we compute individual-specific averages and treat these variables as time-invariant, unless an individual's standard deviation in any of the personality measures exceeds two. This restriction aims to exclude individuals with potentially limited self-knowledge and consequently larger measurement error.[2] Individuals exhibiting unusually large variation in personality measures over the life cycle are therefore excluded from the analyses.

Our empirical analyses can be divided into two categories. First, we conduct ex-post life-cycle analyses of earnings, wages, and employment. Second, we analyse labour market dynamics during the life cycle. For the former, we consider either labour market entry or the complete employment biography up to age 45 and include each individual only once. For the latter, where we study transitions, benefit receipt, and non-employment duration over the life cycle, we use all available person-year observations. Table 1 presents the

[2]For a discussion of this issue, see Dohmen and Jagelka (2023); Falk et al. (2025).

Table 1: Sample restrictions and size

	Men	Men × year	Women	Women × year
Merged sample	19,057	49,6307	19,334	50,9055
Non-missing p. traits	8107	251640	9071	280,747
Stable p. traits	7907	245,855	8883	275,303
Cohorts 1957-1978	3882	149,488	4452	169,553
Employed before 28	2552	97,825	2985	112,887
Never civ. serv. or self-emp.	1918	73,145	2435	91,804

Note: Table shows step-by-step how sample restrictions affect the size of the analysis sample. *Source:* SOEP-CMI-ADIAB7523.

Table 2: Descriptive statistics, analysis sample

	Men	Women
Year of birth	1968	1968
LT earnings (€)	795,651	411,779
LT employment (days)	7119	6054
Avg. daily wage (€)	108.66	71.24
No voc. training	0.11	0.09
Voc. training, no HS	0.61	0.60
Voc. training, HS	0.16	0.20
Tertiary education	0.13	0.11

Note: Table shows descriptive statistics of the analysis sample. Education variable is based on SOEP data. *Source:* SOEP-CMI-ADIAB7523.

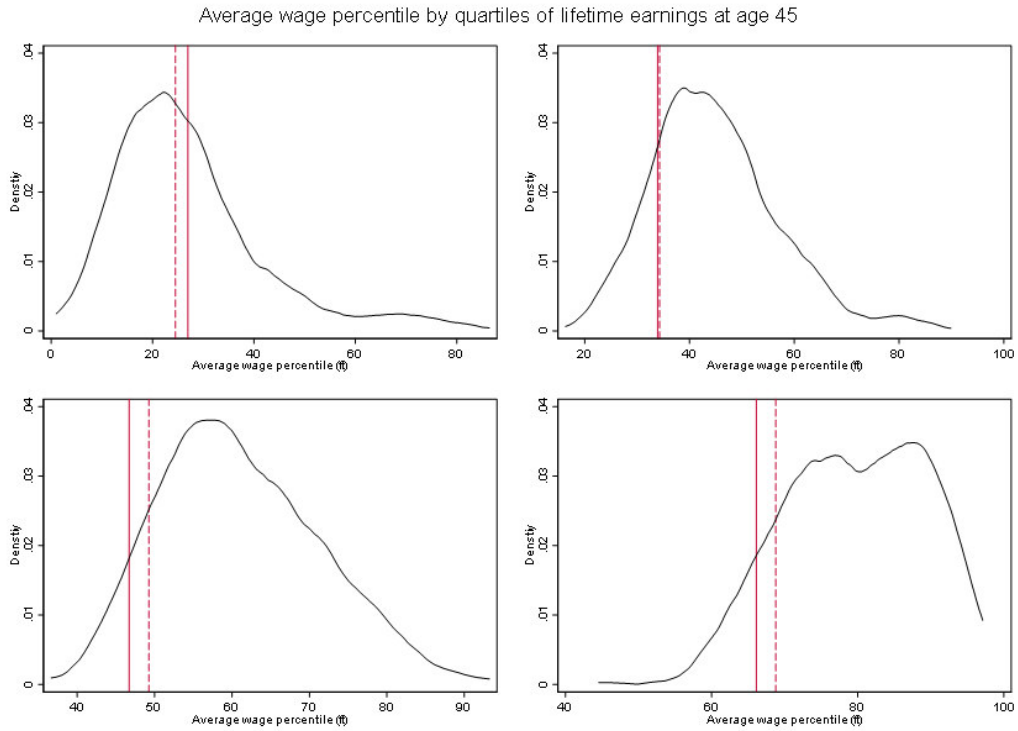
sample sizes for both analysis samples and shows how they are affected by the sample restrictions described above. As shown in the table, our final analysis sample comprises 1,918 men and 2,435 women for whom complete employment biographies can be observed and all sample restrictions are satisfied.

Table 2 reports descriptive statistics for the regression sample. On average, men's accumulated earnings are about twice as high as women's accumulated earnings (€796,000 compared with €412,000). Men are also employed for more days, although this difference is smaller than the earnings gap: on average, men are employed for slightly more than 7,000 days between ages 18 and 45, while women are employed for slightly more than 6,000 days. Men's average daily wage amounts to €109, compared with €71 for women. The educational composition of men and women is similar. The majority of the sample consists of individuals with vocational training but without a high-school diploma, accounting for 61% of both men and women. Tertiary education is observed for 13% of men and 11% of women.

Figures 2 and 3 show the distributions of average wage percentiles and accumulated work experience up to age 45 by quartiles of accumulated earnings, separately for men and women. The top-left panel of Figure 2 shows the distribution of average wage percentiles among individuals in the bottom quartile of accumulated earnings. Overall, the range of average daily wages within each quartile of accumulated earnings is wide and overlaps substantially across quartiles. Accordingly, wage levels alone cannot be used to infer earnings accumulation. Labour force participation must be considered as a second key component. The low kurtosis in the second and third panels indicates that a broad range of wages, combined with varying degrees of labour force participation, can lead to similar levels of accumulated earnings. In the fourth panel, the bimodal distribution suggests two distinct biographies that lead to high accumulated earnings: employees with vocational training who enter the labour market early and receive solid

average wages, and employees with tertiary education who enter later but earn higher wages.

Figure 2: Distribution of average wages by quartiles of accumulated earnings



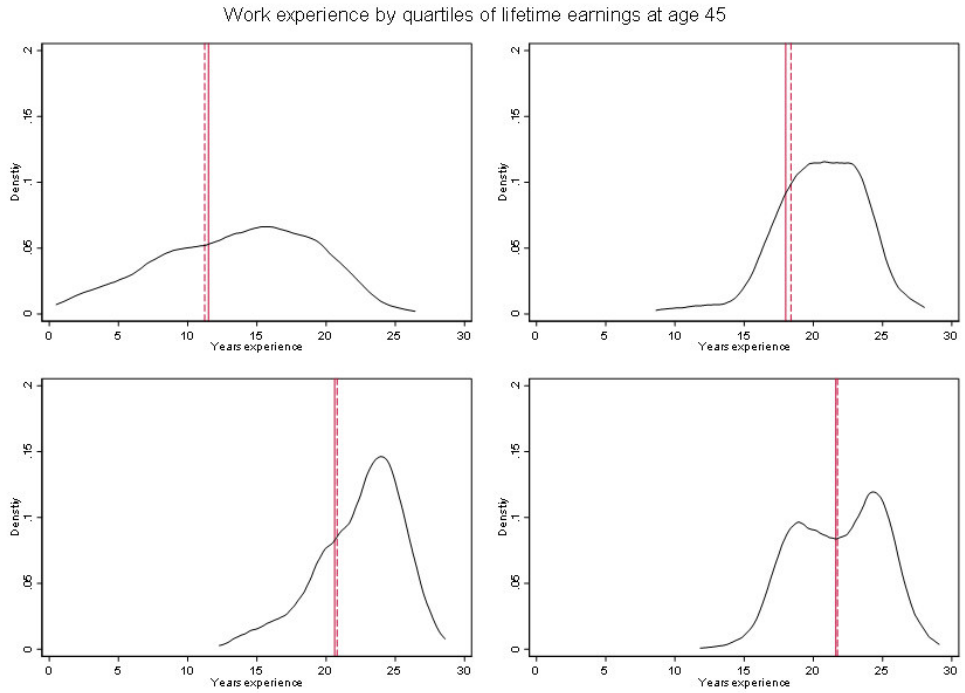
The panels show the distribution of full-time wage percentiles by quartiles of accumulated earnings from dependent labour at age 45: Top left 1st quartile – bottom right 4th quartile. A graph with gender specific distributions can be found in the appendix (Figure A.2). Data source: SOEP-CMI-ADIAB7523.

Figure 3 shows work experience by the same quartiles of the accumulated earnings distribution. Consistent with Figure 2, the distributions are wide. The bottom quartile in particular exhibits substantial variation, reflecting the role of employment interruptions in generating low accumulated earnings even when wages are not necessarily very low. In the second and third quartiles, the distributions become narrower, with a pronounced peak around 24 years of employment. This pattern is driven by employees who entered the labour market early and experienced few or no interruptions. In the fourth quartile, we again observe a bimodal distribution, reflecting the two career pathways associated with vocational training and tertiary education, respectively.

A separate analysis for women and men (Figures A.2 and A.3) shows that the distributions are even wider for women than for men, reflecting greater heterogeneity in women's employment biographies. The bimodal pattern is largely driven by men.

Taken together, Figures 2 and 3 highlight substantial variation in average wages and years of employment across quartiles of the accumulated earnings distribution. Individuals at the bottom of the distribution may have average wages above the median, but their earnings accumulation may be limited by frequent career interruptions. Conversely, even stable employment does not necessarily lead to accumulated earnings in the upper half of the distribution if wages remain persistently low. Therefore, understanding how individual characteristics affect accumulated earnings requires analysing earnings accumulation jointly with wage and employment trajectories.

Figure 3: Distribution of labour force participation by quartiles of accumulated earnings earnings



The panels show the gender specific distribution of experience percentiles (days in employment with social security contributions) by quartiles of accumulated earnings from dependent labour at age 45: Top left 1st quartile – bottom right 4th quartile. Separate distributions for men and women are provided in the appendix Figure A.3. Data source: SOEP-CMI-ADIAB7523.

4 Empirical analysis

This section describes the empirical approach used to investigate the relationship between personality and the accumulation of labour market earnings over the life cycle. The analysis proceeds in three steps. First, we estimate the baseline relationship between personality and accumulated earnings. Second, we decompose accumulated earnings into average wages and labour force participation in order to assess the relative importance of each channel. Third, we examine the underlying dynamics within both channels and analyse the career trajectories that give rise to the observed patterns in long-run earnings outcomes.

4.1 Personality and earnings accumulation

4.1.1 Empirical approach

Our primary outcome of interest are accumulated labour earnings. Accumulated earnings reflect long-run economic success and incorporate both wage dynamics and employment histories.

To assess how personality traits relate to accumulated earnings, we estimate the following OLS model:

$$logAccE_i = \beta_0 + \beta_1 Big5_i + \beta_2 Risk_i + \beta_3 LoC_i + (X_i'\beta_4) + \varepsilon_i, \quad (1)$$

where $Big5_i$ is a vector of the Big-5 personality traits, $Risk_i$ is a measure of risk aversion, LoC_i measures locus of control (as defined in Section 3.2), and X_i is a vector of control variables. Depending on the specification, we control for gender, birth cohort, and education. The regressions are estimated using robust standard errors.

Accumulated earnings are jointly determined by individuals' wages and their labour force participation over time. To examine which of these margins drives the observed relationship between personality and accumulated earnings, we decompose accumulated earnings into average wages and labour force participation, as defined above (Section 3.2).

The empirical specification for the subsequent analyses follows the same structure:

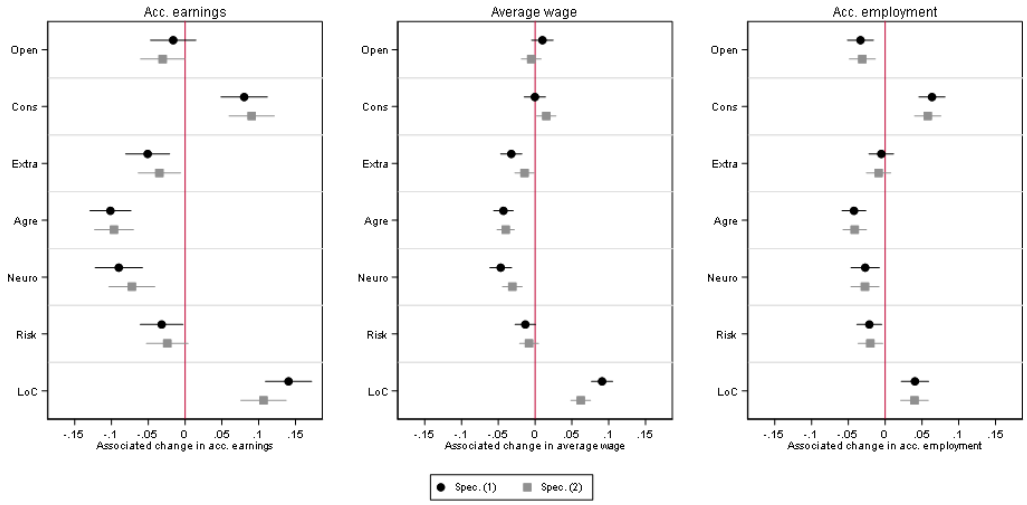
$$Y_i = \beta_0 + \beta_1 Big5_i + \beta_2 Risk_i + \beta_3 LoC_i + (X_i' \beta_4) + \varepsilon_i, \tag{2}$$

For the decomposition analyses, the outcome Y_i is defined either as log average earnings conditional on employment ($log(\bar{y}_i)$) or as log of the number of days employed ($log(AccEmp_i)$). The wage regressions captures the wage-setting margin and reflect how personality traits relate to earnings conditional on employment. The labour force participation regressions capture the relationship between personality traits and labour market attachment along the extensive margin, such as employment stability and sustained labour market participation.

Taken together, the analyses of wages and labour force participation provide a framework for understanding how personality traits translate into differences in accumulated earnings.

4.1.2 Results

Figure 4: Coefficient plot: Accumulated earnings, average wages and accumulated employment (in logs)



Coefficient plot showing β_1, β_2 and β_3 of the equations (1) and (2). "Acc. earnings" are accumulated earnings up to age 45 ($AccE_i$), "Average wages" are average daily earnings when employed up to age 45 ($\bar{y}_i$), and lifetime employment are days employed up to age 45 ($AccEmp_i$). Spec. (1) includes cohort and gender controls, Spec (2) additionally education controls. A corresponding figure with separate regressions for females and males is provided in the appendix (Figure A.4). Corresponding regression tables are provided in the appendix (Table B.1). N=4353. Data source: SOEP-CMI-ADIAB7523.

Figure 4 presents the results in a coefficient plot.[3] The findings reveal substantial heterogeneity across personality traits in both their relationship with accumulated earnings and the channels through which these relationships arise. We present two specifications: Specification (1), which controls for gender and birth cohort, and Specification (2), which additionally controls for education. Specification (2) therefore allows us to examine the role of educational selection in the observed associations between personality traits and earnings.

For our main outcome, accumulated earnings, conscientiousness and an internal locus of control (LoC) exhibit a positive association. The estimated coefficients are sizeable: A one standard deviation higher conscientiousness is associated with about 8% higher accumulated earnings and a one standard deviation higher locus of control is associated with 14% higher earnings. The latter relationship is partly driven by educational selection, when controlling for educational selection it is reduced to 11%.

In contrast, agreeableness, neuroticism, and extraversion are negatively associated with accumulated earnings. Conditional on education, the negative coefficient of agreeableness (-10%) is almost as large in magnitude as the positive coefficient of conscientiousness. The negative associations of extraversion and neuroticism are partly driven by educational selection. Openness exhibits a negative association that becomes statistically significant only after controlling for education, suggesting that positive educational selection among more open individuals counteracts an otherwise negative relationship Finally, willingness to take risks displays a significant negative association due to educational selection.

These patterns indicate that personality traits are systematically related to accumulated earnings, although the magnitude and direction of these relationships differ substantially across traits.

Decomposing accumulated earnings into average wages and employment experience reveals that the association of personality with accumulated earnings operates through distinct margins. For conscientiousness, the positive association with accumulated earnings is driven primarily by higher employment over the life course rather than higher wages. A one standard deviation higher level of conscientiousness is associated with a 6% higher employment experience. This suggests that more conscientious individuals accumulate earnings mainly through stronger and more continuous labour market attachment. Wages are only higher conditional on education as more conscientious people are more likely to have chosen a vocational training over tertiary education.

By contrast, locus of control operates through both channels: individuals with a stronger internal locus of control earn 9% higher wages on average and spend 4% more time in employment, leading to higher accumulated earnings. Roughly one third of the relationship with wages is driven by educational sorting.

For agreeableness and neuroticism, the negative relationship with accumulated earnings reflects a combination of lower average wages (about 4%) and fewer days employed (4% and 3%). These traits therefore imply a double disadvantage for long-run earnings through both wage-setting and employment margins. For neuroticism, a third of the relationship with wages is driven by educational selection. Openness and willingness to take risks, by contrast, primarily relate to lower accumulated employment (3% and 2%). The association with wages becomes only significant through educational selection. In turn,

[3] A full regression table is provided in the appendix (Table B.1).

extraversion primarily operates through lower wages (3%), where half of the association is driven by educational selection. A gender-specific analysis (Figure A.4) reveals that negative association between wages and extraversion is primarily driven by women. Further, the positive association between accumulated earnings and conscientiousness is stronger for women. At the same time, the negative relationship between willingness to take risks and employment is driven by men, whereas the relationship with wages is entirely driven by women through educational selection. The positive association between locus of control and wages is about twice as large for men as for women.

Overall, personality traits are strongly related to accumulated earnings, but through different mechanisms. Some traits, such as conscientiousness, operate primarily through employment over the life course. Others, such as locus of control, affect both wages and employment, while traits like agreeableness and neuroticism negatively affect both margins. Comparing unconditional and education-adjusted specifications further highlights the role of educational sorting for certain traits, particularly openness, neuroticism, extraversion and locus of control. Taken together, these findings underline the importance of jointly analysing accumulated earnings and their underlying components in order to understand how personality shapes long-run labour market outcomes.

4.2 Wage dynamics

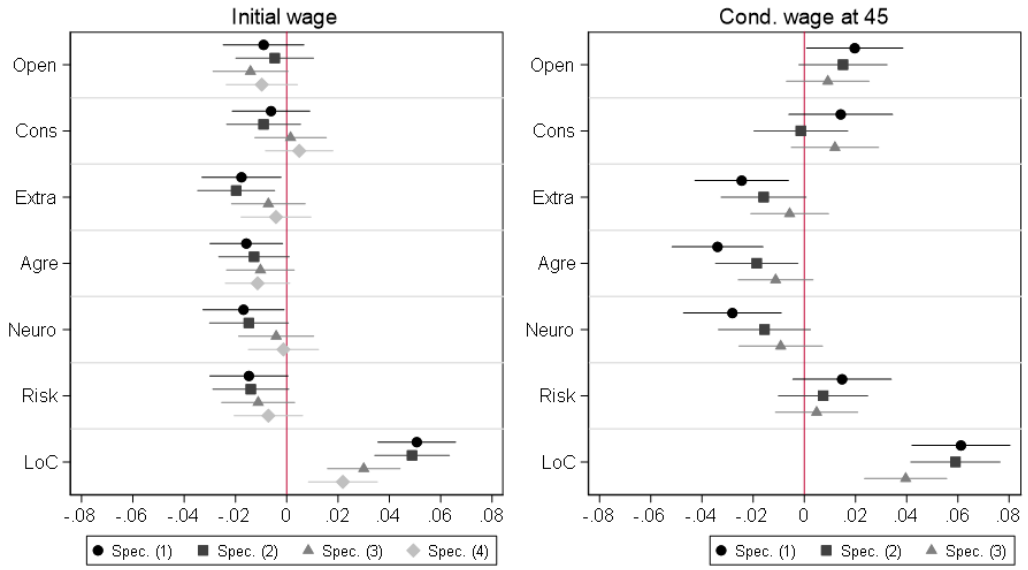
To understand through which mechanisms personality interacts with average wages, we separately analyse wages at career start and wage growth thereafter. At the same time, we account for educational and job selection (occupation and task level). This facilitates understanding to what extent personality is associated with average wages through selection into education and occupations before or at the beginning of the career, and to what extent it relates to subsequent wage development conditional on wages, occupation, and education at career start.

Figure 5 shows the coefficient plots of our regressions. The regressions are analogous to Equation 2, and both outcomes are measured in logs. For the initial wage (left panel), we estimate four specifications controlling for (1) cohort and gender, (2) full-time employment, (3) education, and (4) sector and task level in the first job. This allows us to examine to what extent personality traits affect initial wages through intensive-margin labour supply as well as educational and occupational selection.

To analyse wage growth, we focus on wages at age 45, conditional on wages, education, and task level and sector at the initial employment (Specification 1). In Specification 2, we additionally control for full-time employment to understand the role of intensive-margin labour supply choices. In a third specification, we additionally control for education, task level, and sector at age 45 to assess how much of the relationship between personality and wage dynamics is driven by educational and occupational choices made after labour market entry.

We find that extraversion, agreeableness, and neuroticism are negatively associated with initial wages (between 1.6 and 1.8 percent). The association with extraversion and neuroticism is entirely driven by educational selection, whereas the association with agreeableness is partially driven by part-time employment and educational selection. Willingness to take risks is negatively associated with initial wages, although the relationship is statistically insignificant. Locus of control is positively associated with higher initial wages: a one-standard-deviation increase in locus of control is associated with a 5 per-

Figure 5: Coefficient plot: Initial wages and conditional wages at age 45 (in logs)



Coefficient plot showing β_1, β_2 and β_3 of the equation (2). In the left column, Spec. (1) includes cohort and gender controls, Spec (2) additionally full time controls, Spec (3) additionally education at first employment, and Spec (4) additionally includes task level and sector at first employment. In column 2, Spec (1) includes cohorts, gender, the wage, education, task level, and sector at first employment, Spec (2) additionally full-time at age 45, and Spec (3) additionally includes education and task level and sector at age 45. Corresponding regression tables (Table B.7 and B.8) and a figure with separate regressions for females and males is provided in the appendix (Figure A.5). Data source: SOEP-CMI-ADIAB7523_v1.

cent increase in initial wages. This positive relationship is partially driven by educational and occupational selection. Conscientiousness is not significantly associated with initial wages.

Conditional on wages and educational and occupational selection at career start, personality remains strongly associated with wages later in the career. Through continuing full-time employment and occupational choices, openness is positively associated with wages around age 45 (2%), whereas extraversion, agreeableness, and neuroticism exhibit negative associations (between 2.5 and 3.4 percent). Locus of control is strongly positively associated with wages, partly through occupational choices made after career start. A one-standard-deviation higher locus of control is associated with a 6 percent higher wage at age 45. Conscientiousness is not significantly related to wages at age 45 conditional on initial characteristics. It exhibits a positive tendency through full-time selection; however, occupational choices after career start appear to counteract this positive association.

A gender-specific analysis (Figure A.5) reveals that the negative association between initial wages and extraversion, agreeableness, and neuroticism is mainly driven by women. The positive relationship with locus of control, however, is much stronger for men. For wages at age 45, the positive association with openness and the negative association with extraversion are entirely driven by women. The associations with agreeableness and neuroticism are slightly stronger for women than for men and are to a large extent driven by part-time selection. The positive relationship with locus of control is almost twice as large for men as for women. In both cases, this association is not driven by full-time selection. In contrast to men, women exhibit a strong positive association between conscientiousness and wages at age 45, of a similar magnitude to the association with locus of control. Approximately half of this association is driven by selection into

full-time employment.

Overall, the analysis shows that the relationship between average wages and personality is driven by both the association with wages at labour market entry and wage development thereafter. For most traits (extraversion, agreeableness, neuroticism, and locus of control), the associations with initial wages and wages at age 45 point in the same direction and therefore correspond to the aggregate relationship with average wages. However, the more detailed analysis of openness, conscientiousness, and willingness to take risks reveals counteracting associations that result in insignificant or only weak aggregate relationships with average wages. Openness is positively associated only with wage dynamics after labour market entry, driven by stronger full-time employment among women, while showing a slightly negative tendency for men at labour market entry. Similarly, conscientiousness exhibits a strong positive association with wage dynamics for women through selection into full-time employment, but a negative tendency for men through educational selection that counteracts a positive aggregate relationship with average wages. Willingness to take risks appears to have a positive tendency for wage development after labour market entry through job choice, but it is also associated with lower initial wages, leading to only a small negative aggregate association with average wages.

4.3 Employment dynamics

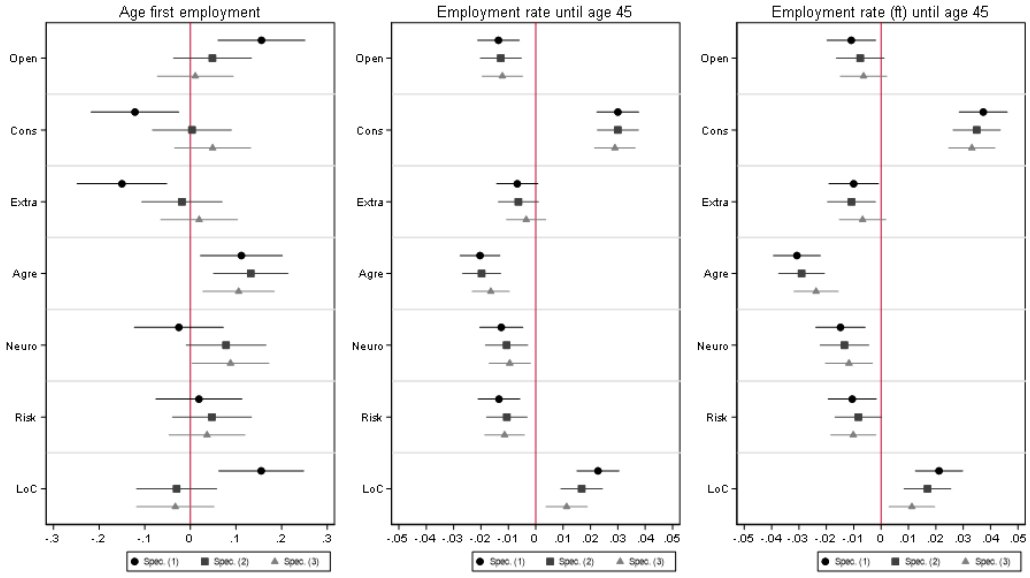
Besides the wage component, we also study how personality traits interact with employment dynamics, the second component of accumulated earnings. For this purpose, we first analyse the association between personality and the age of labour market entry while accounting for the role of educational and occupational selection. Second, we analyse individual employment rates after career start, conditional on education and occupation at labour market entry while accounting for occupational selection thereafter.

Typically, higher levels of education are associated with later labour market entry. Therefore, a later career start that can be explained by educational selection could rather be interpreted positively under the assumption that it increases initial wages and potentially the slope of subsequent wage growth. In contrast, a later career start that is not explained by additional educational attainment will likely reduce accumulated earnings over the life cycle.

Figure 6 shows the results of this analysis. Similar to the analysis of initial wages, we estimate three specifications for age at first employment (left panel) in order to examine the extent to which the relationship between personality and age at first employment is determined by educational choices (Specification 2) and occupational selection (Specification 3). In the second panel, we investigate employment stability by examining the individual employment rate between labour market entry and age 45. The third panel is analogous to the second but considers only full-time employment as the outcome variable.

The association between personality and age at first employment is strongly driven by educational selection. Individuals who are one standard deviation more open or have a one-standard-deviation higher locus of control start their careers on average 1.6 months later, but this is largely driven by their selection into longer educational pathways. In contrast, more conscientious and more extraverted individuals start their careers earlier, to a similar extent due to shorter educational pathways. However, the later career start of

Figure 6: Employment dynamics



Coefficient plot showing β_1, β_2 and β_3 of the equation (2). In the left column, Spec. (1) includes cohort and gender controls, Spec. (2) additionally education at first employment, and Spec. (3) additionally includes task level and sector at first employment. In columns 2 and 3, Spec. (1) includes cohorts and gender, Spec. (2) education, task level, and sector at first employment, and Spec. (3) additionally includes education and task level and sector at age 45. Corresponding regression tables (Table B.5 and B.6) and a figure with separate regressions for females and males is provided in the appendix (Figure A.6). Data source: SOEP-CMI-ADIAB7523_v1.

more agreeable individuals is neither driven by educational nor occupational selection. Neuroticism is associated with a later career start only after controlling for education and occupation. The raw effect is suppressed by selection into shorter educational pathways. Accordingly, more neurotic individuals tend to pursue shorter educational paths, which shifts labour market entry earlier and offsets the underlying positive effect. In other words, without accounting for education, the delaying effect of neuroticism on career start remains hidden.

The next two panels of Figure 6 show that personality is not only related to the timing of labour market entry but also to employment stability thereafter. The middle panel presents coefficients for the overall employment rate, while the right panel shows coefficients for the full-time employment rate. Again, we estimate three specifications to understand which part of the association between personality and employment rates is driven by educational and occupational selection at labour market entry (Specification 1 versus Specification 2), and which part is driven by occupational selection after labour market entry (Specification 2 versus Specification 3). Overall, the coefficients remain very similar across specifications, with the exception of locus of control and agreeableness for the full-time employment rate. Locus of control is positively associated with both the overall and the full-time employment rate and partly operates through educational and occupational selection at the beginning of the career as well as throughout the career. A one-standard-deviation higher locus of control is associated with a 2.3 percentage point higher employment rate. Conscientiousness exhibits a strong positive association with employment, particularly with full-time employment, where a one-standard-deviation higher conscientiousness is associated with a 3.7 percentage point higher full-time employment rate, only to a small extent operating through educational and occupational selection. In contrast, all other traits are negatively associated with employment. Agreeableness is most detrimental for employment stability, particularly

for full-time employment, where a one-standard-deviation higher in agreeableness is associated with a 3 percentage point lower employment rate, partly operating through educational and occupational selection both at labour market entry and throughout the career. Neuroticism is associated with an approximately 1.3 (1.5) percentage point lower overall (full-time) employment rate. Willingness to take risks is associated with a 1.3 (1) percentage point lower overall (full-time) employment rate. Extraversion is associated with a 1 percentage point lower full-time employment rate, and openness with a 1.4 (1.1) percentage point lower overall (full-time) employment rate, where the latter is only significant due to educational and occupational selection at labour market entry.

Analysing gender differences (Figure A.6 in the Appendix) reveals that only more open women exhibit a higher age at first employment and that this relationship is largely driven by educational selection. At the same time, only more conscientious men exhibit a lower age at first employment due to educational selection. The negative association with extraversion is significant only for women. For women, willingness to take risks is associated with a higher age at first employment only conditional on education and occupational choice, indicating that selection counteracts the relationship. Neuroticism and locus of control exhibit similar relationships for men and women.

For employment rates, the negative association with openness is mainly driven by men. The positive association with conscientiousness is stronger for women, the negative association with extraversion is significant only for female full-time employment, and the negative association with agreeableness is stronger for women overall and strongest for full-time employment[4]. The negative association with willingness to take risks is driven by men, whereas the relationship with locus of control is stronger for men than for women.

Overall, the analysis shows that the association between personality traits and accumulated employment is mainly driven by employment rates rather than age at first employment. In most cases, the relationships between personality traits and age at first employment as well as employment rates both affect accumulated employment in the same direction (openness, conscientiousness, agreeableness, neuroticism, and willingness to take risks). However, for extraversion the relationships operate in opposite directions, resulting in no significant association with accumulated employment. For locus of control, the later labour market entry is more than offset by higher employment rates, resulting in greater accumulated employment experience.

4.4 Further mechanisms

The previous analyses provide insights into the role of personality traits for aggregate wage and employment dynamics. In the following sections, we aim to gain a better understanding of the career trajectories individuals follow. For this purpose, we first investigate how personality interacts with five different wage trajectories and, second, how it interacts with employment frictions such as transitions and interruptions.

[4]This could hint at a relationship with household bargaining.

4.4.1 Wage trajectories

We begin the analysis of career trajectories by examining how personality relates to individuals' wage trajectories. In particular, we study whether personality predicts the likelihood of belonging to distinct career types, defined based on changes in relative wage positions over the life course.

The career types are constructed using each individual's modal terciles of the overall full-time wage distribution between starting ages 25–27 and ages 43–45, respectively. We define five distinct types j:

- **Always top**: always[5] in top 1/3 of the wage distribution
- **Moving up**: starting in bottom 1/3 and moving to top 1/3
- **Solid**: starting in bottom 2/3 and moving to (or staying in) middle 1/3
- **Always low**: always bottom 1/3
- **Moving down**: starting in top 1/3 moving to bottom 2/3 or starting from middle 1/3 moving down to bottom 1/3

All career types are mutually exclusive, ensuring that each individual working full time in both periods is assigned to exactly one type. We estimate a multinomial logit model with year fixed effects and robust standard errors:

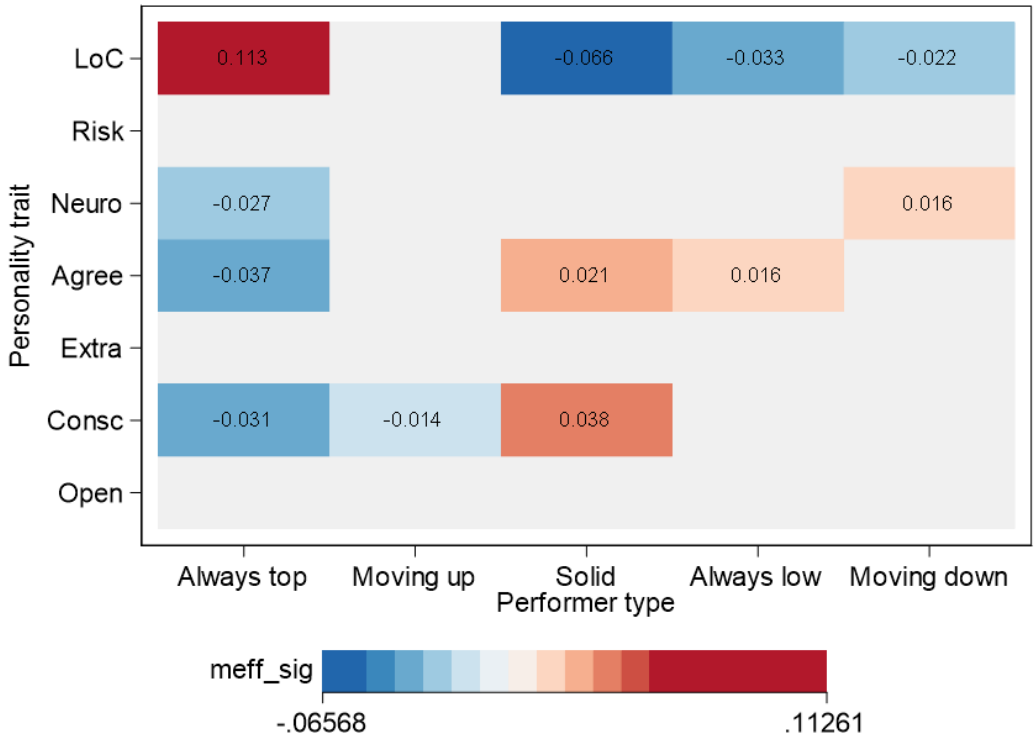
$$Pr(Y_i = j) = \Lambda(\beta_0 + \beta_1 Big5_i + \beta_2 Risk_i + \beta_3 LoC_i + \gamma_t + \varepsilon_i). \tag{3}$$

We report marginal effects for ease of interpretation. This analysis sheds light on whether the relationship between personality traits and accumulated earnings operates through systematic differences in wage progression.

Results of this analysis are depicted in Figure 7 for men and Figure 8 for women. The figures show the marginal effects of the personality traits on the probability to belong to a specific career type. Only coefficients significant at the 10% level are shown (Figures with all coefficients are provided in the appendix, Figures A.9 and A.10). Darker colours indicate stronger relationships, with positive relationships shown in red and negative relationships shown in blue. As shown in Figure 7, for men in full-time employment openness, extraversion and willingness to take risks are not significantly related to a specific career type. However, in line with the intuition, conscientiousness is significantly positively associated with the probability of belonging to the "Solid" by 3.8 percentage points per standard deviation. Furthermore, it is negatively related to the probability of belonging to the "Always top" (-3.1pp) and "Moving up" (-1.4pp) types. Agreeableness is rather negatively related to wage prospects. While it similarly increases the probability of belonging to the "Solid" group by 2.1 percentage points and reduces the probability of belonging to the "Always top" type by 3.7 percentage points, it also increases the probability of belonging to the "Always low" type by 1.6 percentage points. Neuroticism also decreases the probability of belonging to the "Always top" type by 2.7 percentage points. t is further related to downward wage mobility, as it increases the probability of

[5] "Always" means at age 25-27 and at age 43-45.

Figure 7: Wage-trajectory types men

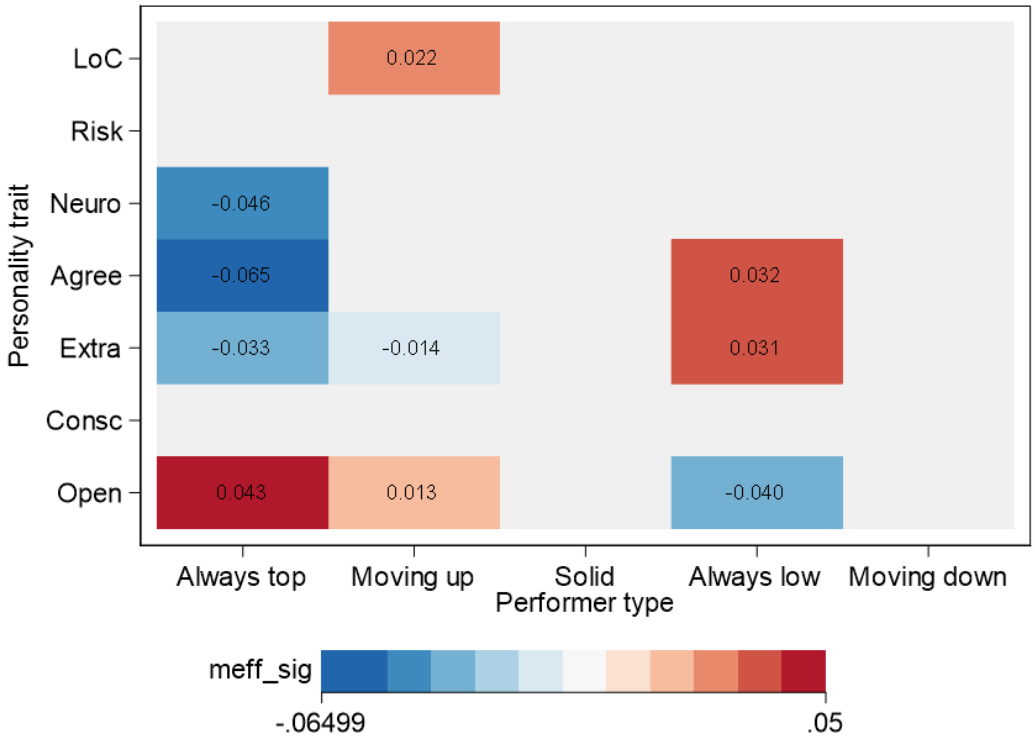


Coefficient plot showing β_1, β_2 and β_3 of the equations (3) for men when significant at the 10 percent level. A figure with all coefficients is provided in the appendix (Figure A.9) . Data source: SOEP-CMI-ADIAB7523.

belonging to the "Moving down" type. Finally, locus of control exhibits the strongest associations with career types. Consistent with expectations, it is generally positively related to wage progression. In particular, it is negatively related to belonging to the group characterised by stagnant middle-income careers ("Solid") by 6.6 percentage points, remaining at the bottom ("Always low") by 3.3 percentage points, and moving down by 2.2 percentage points. In contrast, a one-standard-deviation higher in locus of control is associated with an 11.3 percentage point higher in the probability of belonging to the "Always top" type.

For women in full-time employment the patterns are quite different. Conscientiousness and willingness to take risk are not significantly associated with specific career-trajectory types. In contrast to men, openness reveals a positive relationship with wage progression. More open women are more likely to belong to the "Always top" type (+4.3pp) and to the "Moving up" type (+1.3), and are less likely to belong to the "Always low" type (-4pp). We further find a significant relationship for extraversion in the opposite direction of openness. More extraverted women are less likely to belong to the "Always top" (-3.3pp) and the "Moving up" type (-1.4pp) and more likely to belong to the "Always low" type (+3.1pp). While neuroticism was related to descending careers for men, for women it is only negatively associated with the probability of belonging to the "Always top" type (-4.6pp). Agreeableness is more negatively associated with full-time wage progression for women. A one standard deviation higher agreeableness is associated with a 6.5 percentage point lower probability of belonging to the "Always top" group and a 3.2 percentage point higher probability to be in the "Always low" group. Lastly, for women, locus of control is only significantly associated with the "Moving up" type. Women with higher locus of control are 2.2 percentage points more likely experience

Figure 8: Wage-trajectory types women



Coefficient plot showing β_1, β_2 and β_3 of the equations (3) for women when significant at the 10 percent level. A figure with all coefficients is provided in the appendix (Figure A.10) . Data source: SOEP-CMI-ADIAB7523.

upward mobility in the wage distribution. None of the personality measures predicts belonging to the "Solid" type for women.

The results show that although the overall directions of relationships between personality and earnings accumulation are roughly similar for men and women, the implications of personality for full-time wage dynamics are gender-specific. Locus of control increases the probability of persistent top earnings while decreasing the probability of downward mobility or stagnant careers at the bottom and middle of the wage distribution for men. For women, it increases the probability of moving up within the wage distribution. Conscientiousness, however, increases the probability of stable middle-income careers and decreases the probability of persistent top earnings for men. Neuroticism and agreeableness reduce the probability of persistently remaining in the top tercile. For men, neuroticism additionally increases the probability of downward mobility.

Agreeableness further increases the probability of remaining in the bottom third of the wage distribution and, for men, also of belonging to the middle group. Extraversion and openness appear relevant only for women's wage trajectories. Extraversion decreases the probability of remaining in the top tercile or moving upward and increases the probability of remaining in the bottom tercile. Openness shows the opposite pattern: it increases the probability of moving up and remaining at the top while decreasing the probability of remaining at the bottom.

4.4.2 Employment frictions

We next examine how personality traits relate to labour market dynamics and employment stability over the life course. While the previous analyses focused on wage levels, wage growth, and cumulative employment, this subsection turns to transitions between labour market states as well as the incidence and duration of non-employment. Analysing these outcomes provides additional insight into the mechanisms through which personality traits shape long-run earnings trajectories, through job mobility, employment interruptions, non-employment spells, and benefit receipt as an indicator of registered unemployment.

We begin by analysing job mobility by estimating an employee's probability of experiencing a transition out of the current firm, conditional on age, gender, year, and personality (Specification 1), using a linear probability model.[6] Similar to our previous analyses, we additionally control for education, sector, and task level in a second specification to understand the role of educational and occupational selection in the estimated coefficients. The left panel of Figure 9 shows the results.

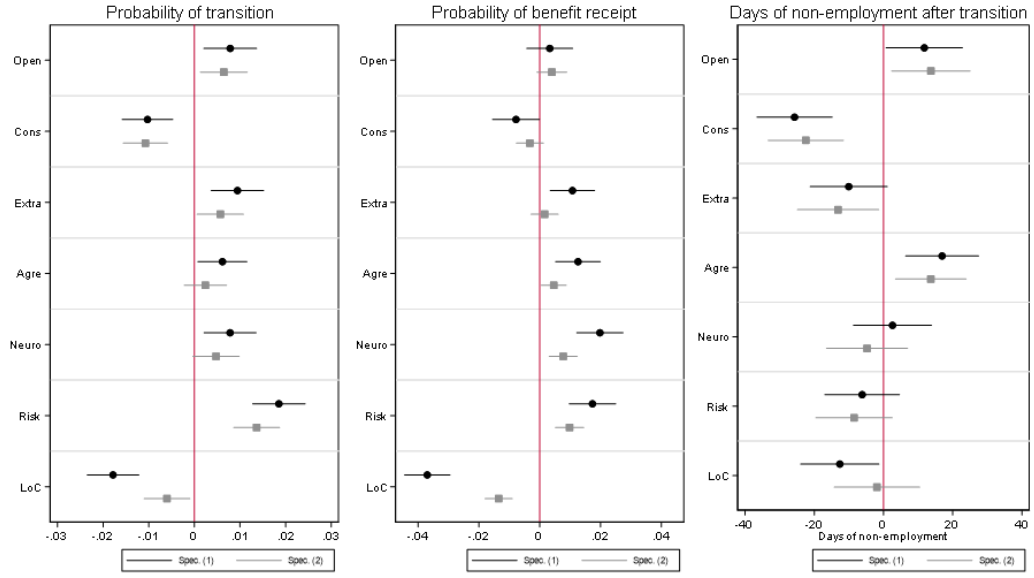
Intuitively, conscientiousness and, perhaps less intuitively, locus of control are associated with fewer transitions, while all other traits are associated with more transitions. In particular, willingness to take risks is associated with a 1.9 percentage point higher probability of leaving a firm. About one quarter of this association is driven by educational and occupational selection. To a similar extent, but in the opposite direction, locus of control is associated with a 1.8 percentage point lower transition probability, two thirds of which are driven by educational and occupational selection. The negative association with conscientiousness (-1pp) is independent of educational or occupational selection. Positive associations with openness, extraversion, agreeableness, and neuroticism range from 0.6 to 0.9 percentage points, with the associations for agreeableness and neuroticism becoming significant only due to on educational and occupational selection.

A gender-specific analysis (Figure A.7 in the Appendix) reveals that the positive association with openness is driven by men. The negative associations with conscientiousness and locus of control are also more pronounced for men than for women, for whom the latter is entirely driven by educational and occupational selection. For extraversion, agreeableness, and neuroticism, the role of selection is much stronger for men, particularly for agreeableness, where the coefficient becomes zero conditional on educational and occupational selection.

Transitions out of a firm can occur for various reasons and may, in particular, be voluntary or involuntary. Personality is likely to be differently associated with these two types of transitions. Unfortunately, the administrative data do not allow us to observe whether transitions are voluntary or involuntary. However, in the SOEP, respondents are asked about the reason for changing jobs. Based on this information, we classify dismissals by employers and plant closures as involuntary transitions, whereas own resignations and mutually agreed terminations are classified as voluntary transitions. Since this information is only available in the survey data, we can analyse differences between voluntary and involuntary transitions only in a reduced sample and during periods in which respondents participated in the SOEP (Figure A.8). The results suggest that the negative association with locus of control is driven by fewer involuntary transitions. In this subsample, conscientiousness is mainly negatively associated with involuntary transitions

[6] Robustness checks with a probit model yield the same results.

Figure 9: Transitions, benefits, and non-employment



Coefficient plot showing β_1, β_2 and β_3. The outcome of the left panel is the probability to transition out of a firm (to non-employment or new firms), the middle panel the probability to receive benefits, and the right panel the number of days not employed after leaving a firm. Specification (1) includes controls for age, age^2, year, and gender; specification (2) additionally controls for education, sector, and task level (of the former job). Corresponding regression table (Table B.9) and a figure with separate regressions for females and males is provided in the appendix (Figure A.7). Data: SOEP-CMI-ADIAB7523v1.

among women. For women, extraversion and neuroticism are mainly associated with voluntary transitions. For men, openness is mainly associated with voluntary transitions.

As a second outcome, we analyse the probability of benefit receipt in a given year. Benefit receipt provides an indicator of labour market risk, as it specifically captures registered unemployment, i.e. individuals who are part of the labour force but (temporarily) unable to find employment. These periods of benefit receipt capture frictions in job search and adjustment costs associated with mobility. The results are shown in the middle panel of Figure 9.

Given the results on transitions and the suggestive evidence regarding voluntary and involuntary transitions in the subsample, the findings are largely as expected. We find that the directions of the associations are similar to those for transitions, except for openness, which exhibits no significant association. Extraversion, agreeableness, neuroticism, and willingness to take risks are positively associated with benefit receipt following a transition, whereas locus of control and conscientiousness are negatively associated. The role of educational and occupational selection is larger here than for transition probabilities. The association with extraversion is entirely driven by educational and occupational selection, while approximately two thirds of the associations with agreeableness and neuroticism, and around one third of the associations with conscientiousness and willingness to take risks are driven by educational and occupational selection.

The analysis of gender heterogeneity shows that the associations with extraversion and agreeableness are mainly driven by men, whereas the association with willingness to take risks is mainly driven by women.

As a third outcome, we study non-employment spells following job transitions to assess whether personality traits are associated with longer or shorter employment interruptions conditional on changing jobs. In contrast to the analysis of benefit receipt prob-

abilities, this provides more detailed insights into the extent to which transitions affect the labour force participation component of earnings accumulation. Non-employment includes both registered unemployment and inactivity.

The right panel of Figure 9 presents the results measured in days of non-employment following a transition. Only openness (+11 days) and agreeableness (+17 days) are significantly positively associated with days of non-employment. Conscientiousness (-25 days), extraversion (-10 days), and locus of control (-13 days) are negatively associated. While the association with locus of control is entirely driven by educational and occupational selection, the association with extraversion is slightly offset by educational and occupational selection.

A gender-specific analysis reveals that the positive association with openness is entirely driven by men and is presumably voluntary, given the previous results on voluntary and involuntary transitions. The negative association with conscientiousness and the positive association with agreeableness are to a larger part driven by women. For both traits, educational and occupational selection do not appear to play a relevant role for women, but they do for men.

Overall, the results show that personality traits are closely related to employment frictions across multiple dimensions. Traits associated with higher mobility, such as openness, extraversion, neuroticism, and willingness to take risks, are also associated with a higher probability of benefit receipt, indicating greater exposure to labour market instability.

In contrast, conscientiousness and locus of control are associated with smoother adjustments following job loss and generally stronger labour market attachment. Conscientiousness primarily reduces the duration and consequences of employment interruptions rather than the incidence of benefit receipt itself. Agreeableness increases both the duration and frequency of employment interruptions, particularly for women. Interestingly, extraversion leads to more interruptions but shorter durations, ultimately resulting in no significant association with accumulated employment

These patterns underscore the importance of considering employment frictions alongside wages and employment levels when assessing the role of personality in shaping long-run labour market outcomes, as insignificant aggregate associations may conceal counteracting effects of underlying mechanisms.

4.5 Explanatory power of personality

The previous analysis has shown how specific personality traits relate to earnings accumulation through the different factors of earnings accumulation. In this subsection we examine how much these traits jointly explain in the variation of accumulated earnings and its two main factors, average wages and labour force participation.

We quantify the incremental explanatory power of personality traits using changes in R^2 when personality traits are included or excluded from the regression. We do this for both specifications, with and without education controls, to quantify the share of variance explained by personality through education.

For the pooled regressions including both men and women, we find that personality explains 5.1% of the variation in accumulated earnings[7], of which 28% of the explained

[7]This share is almost as large as the share that education would explain in a regression without person-

Table 3: Contribution of Personality to Lifetime Labor Market Outcomes

	Personality (% total variance)	Personality conditional on education (% total variance)	Variance absorbed by education (%)
Joint			
Acc. earnings	5.1	3.7	27.9
Avg. wages	5.7	2.9	49.9
Acc. employment	3.4	3.1	10.5
Men			
Acc. earnings	8.6	6.6	23.0
Avg. wages	11.6	6.1	46.5
Acc. employment	4.8	4.5	6.1
Women			
Acc. earnings	5.1	3.5	32.4
Avg. wages	5.0	2.4	52.2
Acc. employment	3.1	2.7	15.3

Notes: The table reports the additional share of total outcome variance explained by personality traits, measured as $\Delta R^2 = R^2(X+P) - R^2(X)$, where X includes baseline controls and P denotes the vector of personality traits. Columns 1 and 2 report the percentage of total variance explained by personality before and after conditioning on education, respectively. Column 3 reports the reduction in explanatory power after adding education controls, interpreted as the share of personality-related variation accounted for by educational selection.

variation is due to educational selection. Personality explains a substantially larger share of variation in wages than in employment. For average wages, personality explains 5.7% of the total variation, of which 50% is due to educational selection. For accumulated employment, personality explains 3.4% of the total variation, with 10% due to educational selection.[8]

Comparing separate regressions for men and women reveals that wages, particularly for men, are more strongly explained by personality. It explains 11.6% of the variation in men's wages, of which 47% is due to educational selection. In contrast, personality explains only 5.0% of the variation in women's wages. Personality also explains a larger share of the variation in men's accumulated employment than in women's accumulated employment (4.8% versus 3.1%). However, out of the employment variance explained by personality, a larger share (15.6%) is due to educational selection for women than for men (6.1%).

Additionally, we conduct a variance decomposition that decomposes the personality-predicted component of earnings accumulation into an employment component, a wage component, and their covariance. The results are presented in Table B.10 (Appendix). The variance decomposition further emphasizes the strong role of personality for wages among men compared to women and relative to employment. For men, a substantially larger share of personality-related variation in earnings accumulation operates through wages rather than employment. For women, the shares are almost equally large, and the largest share of personality-related variation stems from the covariance between personality-related variation in wages and employment. Controlling for education reduces the wage share and increases the employment share for both genders, reflecting

ality traits.

[8]For employment the share explained by personality in a regression without education control is larger than the share explained by education in a regression without personality.

the larger role of educational selection for wages than for employment.

5 Discussion

In this section, we discuss potential weaknesses of our methodological approach and conduct additional analyses that provide further insights into the interpretability of our results. Based on these analyses, we synthesize our findings and summarize the conclusions that can be drawn regarding the implications of personality traits for accumulated labour market outcomes over the life cycle.

5.1 Robustness and interpretation

Given the limitations of the available data, our research questions do not permit the implementation of a quasi-experimental empirical strategy that would support a strictly causal *ceteris paribus* interpretation of the regression estimates discussed above. Consequently, we interpret the reported associations as conditional correlations rather than causal effects. Possible sources of endogeneity that impede a causal interpretation include omitted variable bias and reverse causality.

Omitted variable bias may arise if (unobserved) characteristics omitted from the regression model are correlated with both cumulative earnings and personality traits. In our case, ability or cognitive skills, as well as formal education, could represent such confounders. While we cannot control for ability, we include model specifications that control for education. Education serves as a key proxy for cognitive skills and human capital accumulation. In our main analyses of accumulated earnings, the associations with personality traits change only modestly after adding education controls. At the same time, the sequential inclusion of educational and occupational controls provides insights into the underlying selection processes linking earnings accumulation over the life cycle and personality traits.

Another potential threat to our empirical approach could be reverse causality. Unfortunately, our data do not contain measurements of personality traits prior to individuals' labour market entry. Accordingly, our strategy of taking individual-specific means could include measurements taken after individuals' personality traits had been affected by prior labour market outcomes. The empirical economics literature examining the stability of personality traits over the life cycle considers them to be largely stable, while potential individual changes are generally not induced by adverse life events (Cobb-Clark and Schurer, 2012). This is reinforced by the psychological literature, which does not consider personality traits to be completely immutable but generally finds high rank-order stability of personality traits over the life course, particularly during adulthood (Roberts and DelVecchio, 2000). Moreover, changes in locus of control are primarily found among the very young or very old, but much less during working age (Cobb-Clark and Schurer, 2013). By taking individual-specific means of personality measurements across different ages, we therefore follow the existing literature (e.g. Flinn et al., 2025).

To assess the extent to which our estimates may suffer from reverse causality, we conduct a robustness analysis using three alternative specifications. Instead of taking individual-specific means of personality traits, we estimate one model using the earliest and another using the latest available measurement for all seven explanatory variables. Moreover,

we estimate the original model while additionally including a control variable for the individuals' mean age at which personality was measured.

The results of these robustness checks are displayed in Figure C.1. While there are minor differences in magnitude, the results remain largely consistent for accumulated earnings and its main components, average wages and accumulated days of employment. Accordingly, the relationship between personality traits and the three main variables of interest does not qualitatively depend on the stage of the life cycle at which personality traits are measured.

Consequently, while we refrain from a strict causal interpretation, we consider these robustness checks to provide strong indications that the association between personality traits and accumulated earnings, or labour market biographies more generally, is not predominantly characterised by labour market outcomes influencing individuals' personality. Instead, combined with existing empirical evidence on the stability of personality traits, these robustness checks support the view that our empirical analyses accurately describe the role of personality traits for labour market outcomes throughout the life cycle up to mid-career.

5.2 Non-linearities

In the previous analyses, we investigated the relationship between personality and labour market outcomes under the assumption of a linear relationship. However, intuitively, these relationships could well be nonlinear if the labour market favours more moderate rather than more extreme levels of personality across certain dimensions or traits, resulting in inverted U-shaped patterns. To investigate this possibility, we re-estimate the same regressions using terciles of the personality measures instead of continuous measures. This approach allows us to assess whether belonging to the top or bottom tercile of a specific personality dimension is associated with better or worse outcomes relative to the middle tercile. Below, we focus only on outcomes for which such nonlinearities are observed, while the full results are presented in the Appendix.[9]

The results can be summarized as follows. Overall, most associations appear broadly linear. We do not find statistically significant U-shaped or inverted U-shaped relationships for accumulated earnings, average wages, or accumulated employment (Figure A.11). However, several traits exhibit L-shaped patterns, where only individuals in either the top or bottom tercile differ significantly from the middle group. In addition, some traits display weak tendencies toward (inverted) U-shape relationships.

Openness shows an inverted U-shaped tendency in average wages for men, with men in the middle tercile exhibiting the highest average earnings overall. For men, openness further exhibits an L-shaped pattern in employment and accumulated earnings: in particular, those in the top tercile accumulate lower earnings due to lower labour force participation.

Conscientiousness exhibits a slight inverted U-shaped tendency for average wages, with medium levels associated with the highest earnings. This pattern is driven by an inverted U-shape in initial wages and conditional wages at age 45 for women.

Extraversion displays a U-shaped pattern for women's employment, with women in

[9] Results of the analyses of non-linearities are presented in Figures A.11, A.12, A.13, A.14, A.15, and A.16.

the middle tercile exhibiting the lowest labour force participation. At the same time, women's wages exhibit an L-shaped pattern, as women in the bottom tercile have significantly higher initial wages and conditional wages at age 45. Together, these patterns translate into an L-shaped relationship for accumulated earnings, with women in the lowest tercile of extraversion having the highest accumulated earnings.

Agreeableness likewise exhibits an L-shaped pattern for wages, with particularly low levels associated with higher wages.

For neuroticism, only high levels are negatively associated with accumulated earnings among women, operating through lower labour force participation. Similarly, among men, only the highest tercile is associated with lower overall employment rates.

A similar pattern emerges for willingness to take risks, where only high levels are negatively related to accumulated employment, which is likewise reflected in employment dynamics.

Finally, locus of control exhibits an L-shaped pattern only for women. In particular, low levels are associated with lower employment and lower wages. In contrast to men, women do not appear to benefit additionally from high levels relative to medium levels.

5.3 Summary and concluding remarks

This paper examines how the Big Five personality traits, locus of control, and risk preferences are related to labour earnings accumulation over the life cycle. While a large literature has documented associations between personality and point-in-time wages, much less is known about how personality shapes accumulated earnings once employment stability, career interruptions, and wage growth over the working life are taken into account. Using linked German administrative employment biographies and long-running survey data, we analyse how personality relates not only to wages, but also to labour force participation, employment dynamics, and career trajectories up to mid-career.

Our results show that personality traits are strongly associated with long-run labour market outcomes, but through markedly different mechanisms. Conscientiousness and an internal locus of control are positively associated with accumulated earnings, whereas agreeableness, neuroticism, and extraversion are negatively associated. However, these aggregate relationships conceal substantial heterogeneity in the underlying channels. Conscientiousness primarily operates through stronger labour force attachment and more stable employment over the life cycle, while locus of control affects both wages and employment. Agreeableness and neuroticism are associated with disadvantages in both dimensions, implying lower wages as well as weaker employment attachment. Openness and willingness to take risks are mainly related to employment instability, while extraversion primarily affects wages. These findings highlight that the role of personality for economic success cannot be understood from cross-sectional wage measures alone.

Decomposing accumulated earnings into wage and employment components further reveals that personality affects both the start of individuals' careers and subsequent labour market dynamics. Several traits are associated with educational and occupational sorting at labour market entry, but personality also remains strongly related to wage development and employment stability conditional on individual's initial labour market position. In particular, locus of control is associated with favourable wage growth and stable

employment throughout the career, whereas agreeableness and neuroticism are linked to persistently weaker wage and employment trajectories. Our results therefore suggest that personality shapes long-run earnings trajectories not only through initial sorting into education and occupations, but also through subsequent career progression and labour market attachment.

The analysis of career trajectories and employment frictions provides additional insights into the mechanisms underlying these aggregate patterns. Individuals with a stronger internal locus of control are substantially more likely to experience persistent top earnings or upward mobility, while more agreeable and neurotic individuals are more likely to remain in low-paying careers or experience downward mobility. Conscientiousness is primarily associated with stable middle-income careers among men. Employment dynamics further show that personality traits are systematically related to job mobility, benefit receipt, and employment interruptions. Conscientiousness and locus of control are generally associated with more stable employment trajectories and lower labour market frictions, whereas agreeableness, neuroticism, and risk-taking behaviour are associated with less stable employment patterns. Openness and agreeableness are also related to longer non-employment durations following job transitions.

Our analyses reveal substantial gender heterogeneity. Some traits, particularly extraversion and openness, matter much more strongly for women's wage trajectories than for men's. Conscientiousness appears particularly beneficial for women through stronger full-time employment attachment, whereas the wage association with locus of control is considerably larger for men. These differences underline that personality traits shape wage dynamics and employment trajectories differently for men and women.

The analysis of explanatory power demonstrates that personality traits jointly account for a substantial share of variation in accumulated earnings, particularly through wages. Educational selection explains an important part of these associations, especially for wage outcomes, but a large share can be attributed to variation in personality even after conditioning on education. Moreover, the nonlinear analyses indicate that strict linearity does not hold in all cases. However, the estimated patterns generally remain monotonic and are often driven by differences at either the upper or lower end of the personality distribution.

Our analyses do not permit a strict causal interpretation. Nevertheless, the consistency of the results across specifications, the systematic way of accounting for educational and occupational selection, combined with evidence on the relative stability of personality traits during adulthood from the literature, suggest that personality constitutes an important dimension of heterogeneity in long-run labour market outcomes.

Overall, the findings demonstrate that personality traits shape earnings accumulation over the life cycle, contributing to diverging earnings trajectories across individuals not only through wages, but also through employment stability, labour market attachment, and career progression.

Analyses focusing solely on point-in-time wages therefore provide an incomplete picture of how personality shapes economic success over the life cycle.

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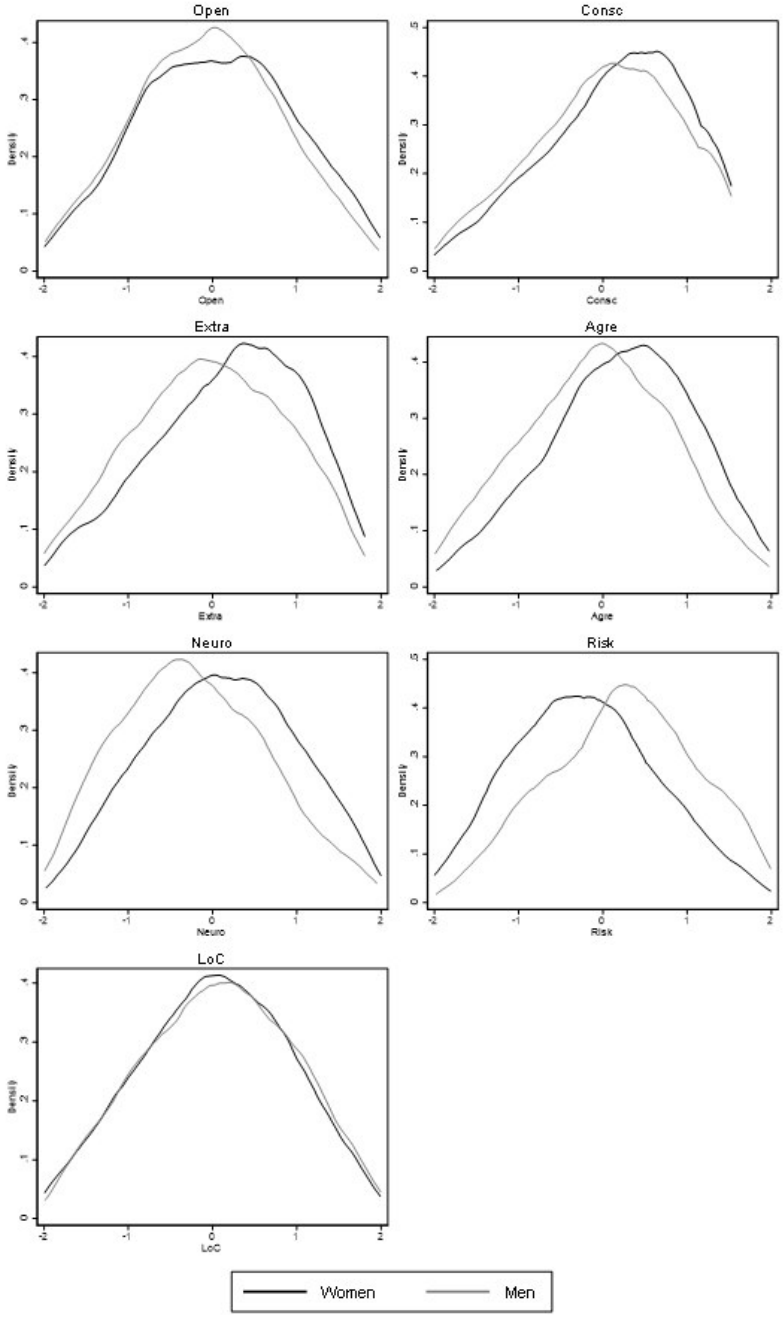
Appendix

A Supplementary figures

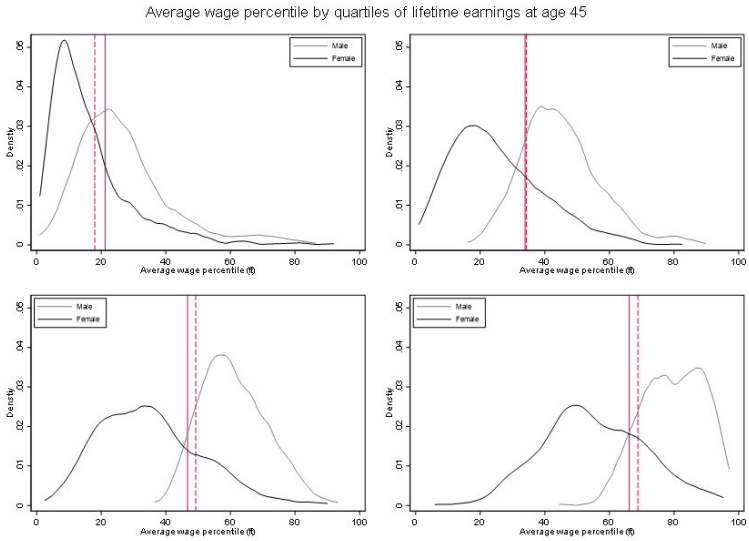
A.1 Distributions

Figure A.1: Distributions of standardised personality measures by gender



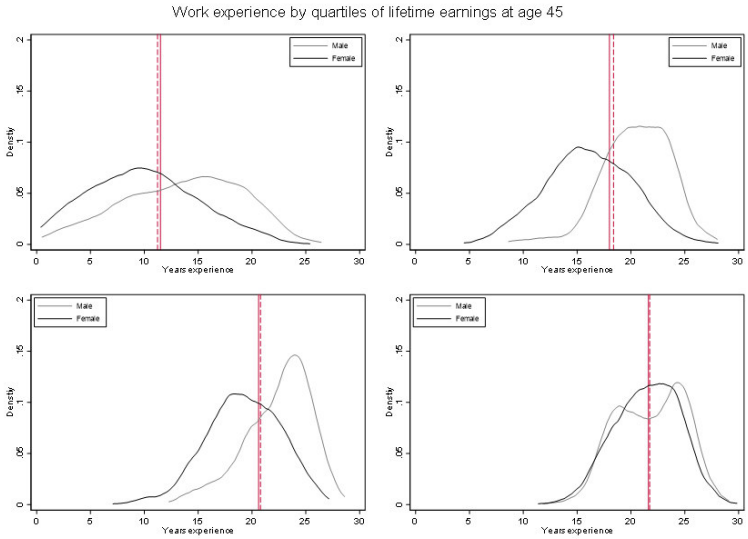
The panels show the distributions of the of standardised personality measures by gender. Data: Estimation sample based on SOEP-CMI-ADIABv7523.

Figure A.2: Distribution of average wages by quartiles of lifetime earnings



The panels show the distribution of full-time wage percentiles by quartiles of accumulated earnings from dependent labour at age 45: Top left 1st quartile – bottom right 4th quartile. Data source: SOEP-CMI-ADIABv7523.

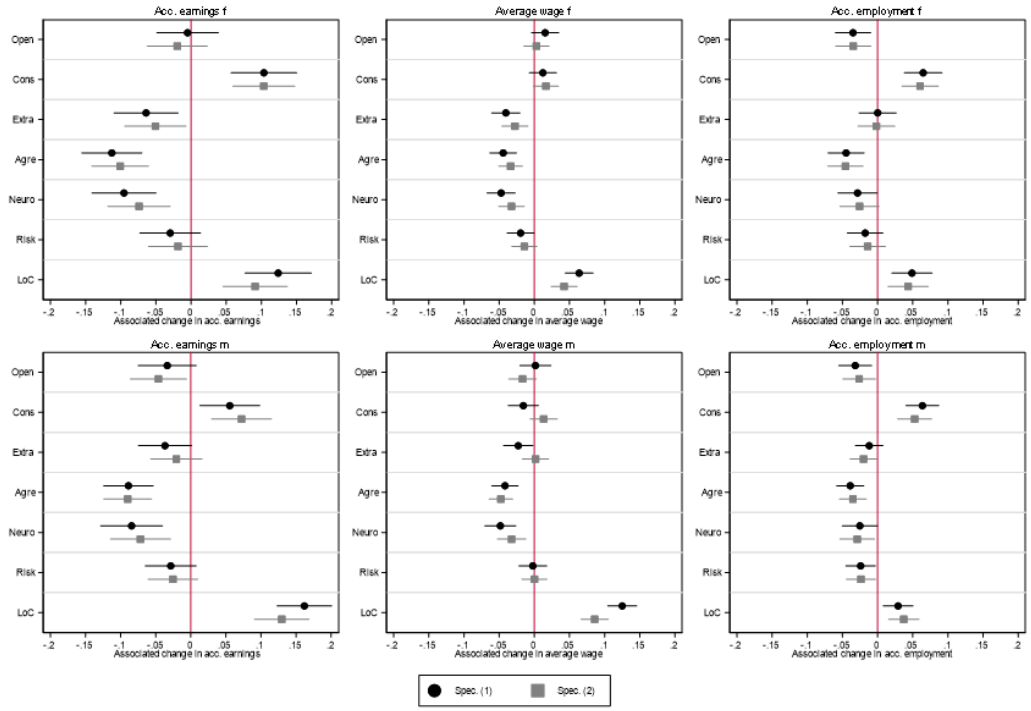
Figure A.3: Distribution of labour force participation by quartiles of lifetime earnings



The panels show the gender specific distribution of experience percentiles (days in employment with social security contributions) by quartiles of accumulated earnings from dependent labour at age 45: Top left 1st quartile – bottom right 4th quartile. Data source: SOEP-CMI-ADIABv7523.

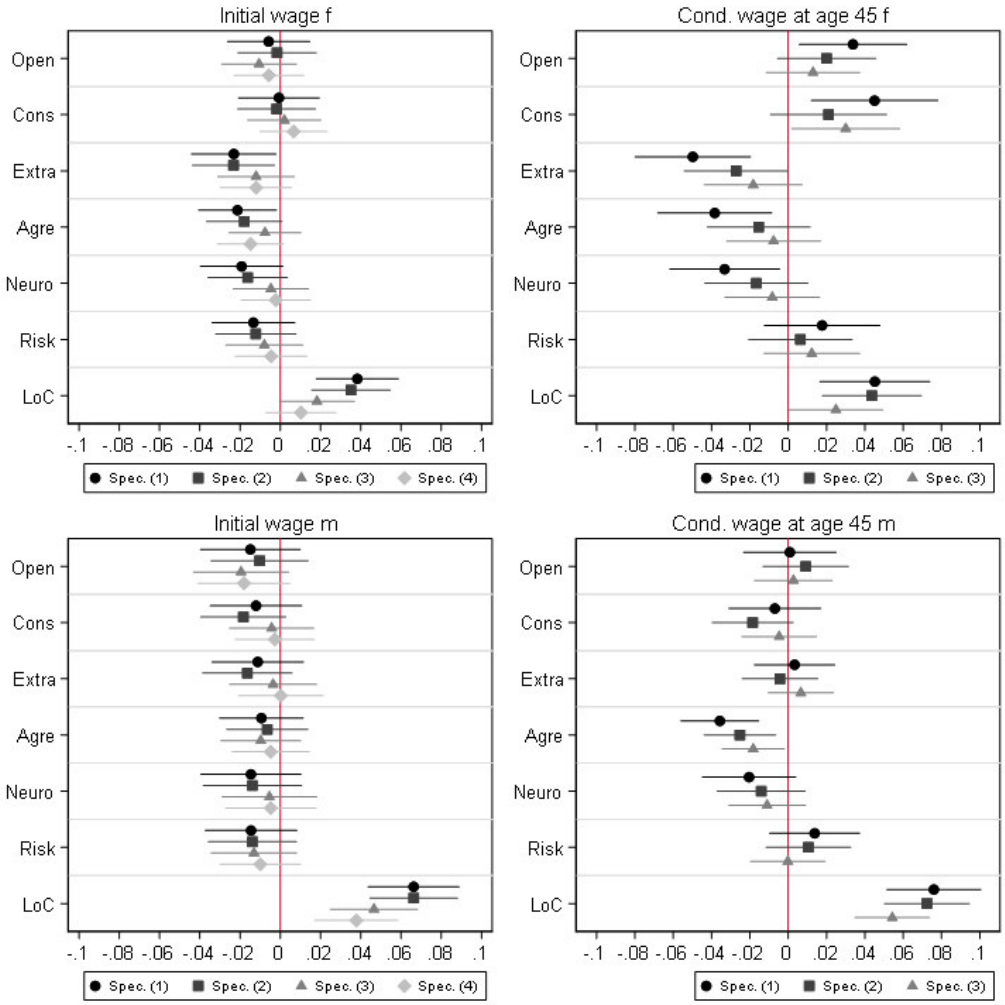
A.2 Gender differences in associations

Figure A.4: Personality and earnings accumulation



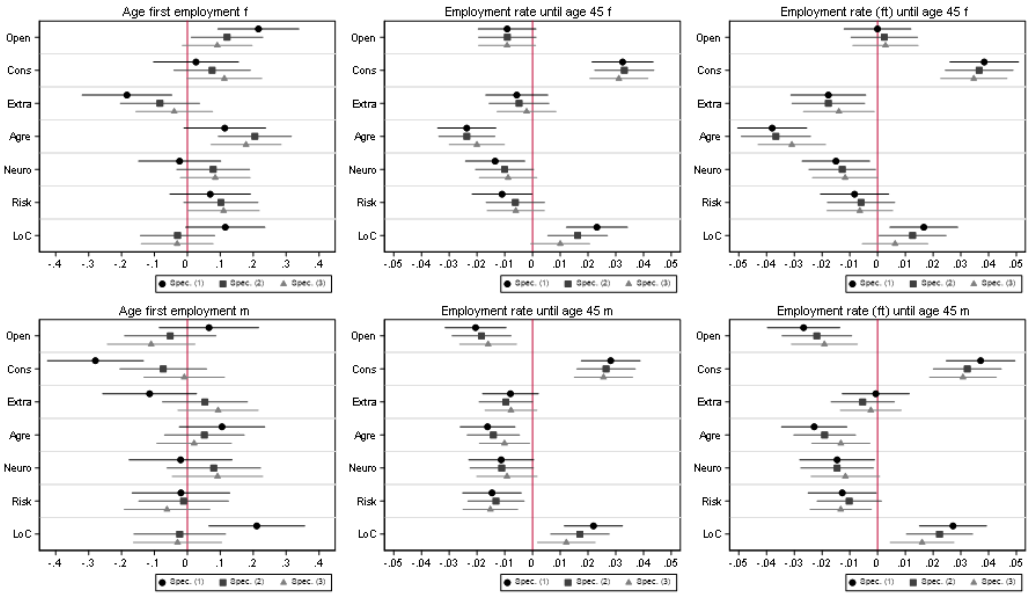
Coefficient plot by gender showing β_1, β_2 and β_3 of the equations (1) and (2). Top row females, bottom row males. "Acc. earnings" are accumulated earnings up to age 45 ($AccE_i$), "Average wages" are average daily earnings when employed up to age 45 ($\bar{y}_i$), and lifetime employment are days employed up to age 45 ($AccEmp_i$). Spec. (1) includes cohort controls, Spec (2) additionally education controls. Corresponding regression tables are provided in the appendix (Table B.3 and B.4). Data source: SOEP-CMI-ADIAB.

Figure A.5: Wage dynamics by gender



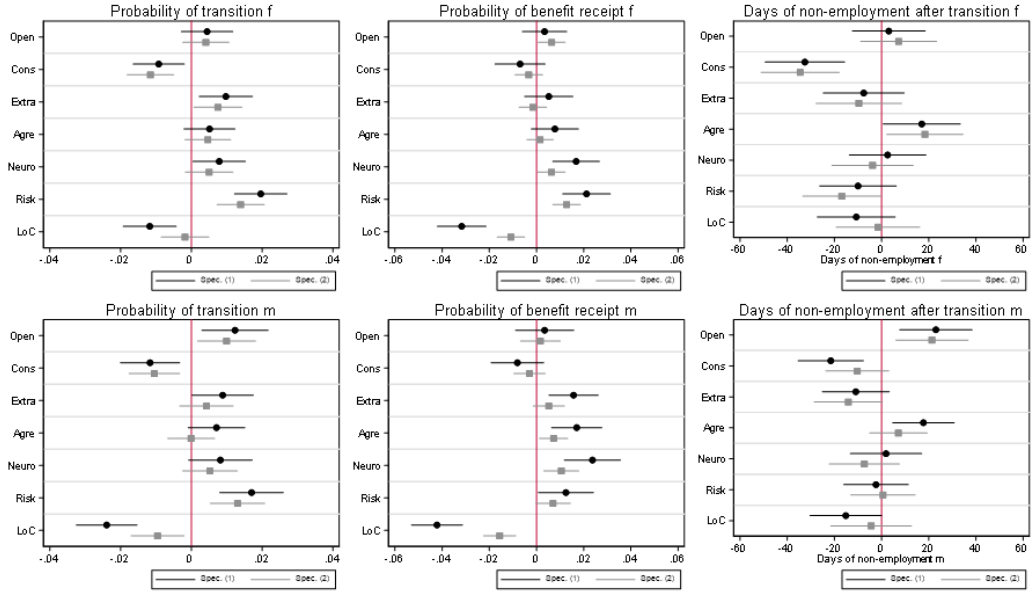
Coefficient plot showing β_1, β_2 and β_3 of the equation (2). In the left column, Spec. (1) includes cohort controls, Spec (2) additionally full time controls, Spec (3) additionally education at first employment, and Spec (4) additionally includes task level and sector at first employment. In column 2, Spec (1) includes cohorts, the wage, education, task level, and sector at first employment, Spec (2) additionally full-time at age 45, and Spec (3) additionally includes education and task level and sector at age 45. Data source: SOEP-CMI-ADIAB7523.

Figure A.6: Employment dynamics by gender



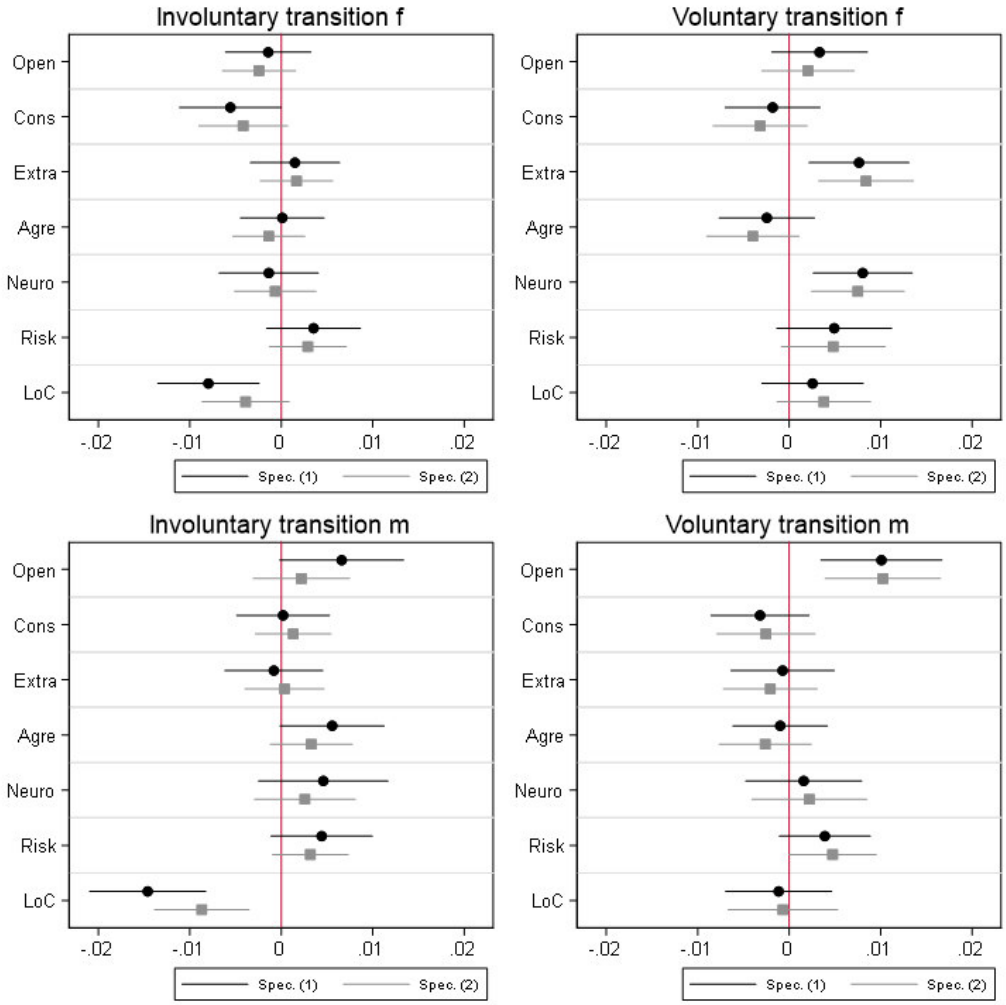
Coefficient plot showing β_1, β_2 and β_3 of the equations (2). Top row women, bottom row men. In the left column, Spec. (1) includes cohort controls, Spec. (2) additionally education at first employment, and Spec. (3) additionally includes task level and sector at first employment. In columns 2 and 3, Spec. (1) includes cohorts, Spec. (2) education, task level, and sector at first employment, and Spec. (3) additionally includes education and task level and sector at age 45. Data source: SOEP-CMI-ADIAB7523.

Figure A.7: Transitions, benefits, and non-employment by gender



Coefficient plot showing β_1, β_2 and β_3. The outcome of the left panel is the probability to transition out of a firm (to non-employment or new firms), the middle panel the probability to receive benefits, and the right panel the number of days not employed after leaving a firm. The top row shows women, the bottom row men. Specification (1) includes controls for age, age^2, year, and gender; specification (2) additionally controls for education, sector, and task level. Data: SOEP-CMI-ADIAB7523v1.

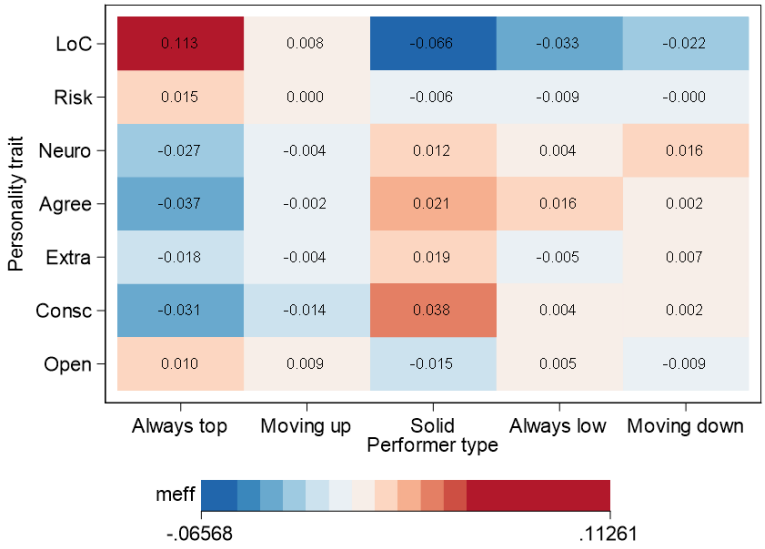
Figure A.8: Voluntary vs. involuntary transitions by gender



Coefficient plot showing β_1, β_2 and β_3. The outcome of the left panel is the probability to transition out of a firm (to non-employment or new firms), the middle panel the probability to receive benefits, and the right panel the number of days not employed after leaving a firm. The top row shows women, the bottom row men. Specification (1) includes controls for age, age^2, year, and gender; specification (2) additionally controls for education, sector, and task level. Data: SOEP-CMI-ADIAB7523v1.

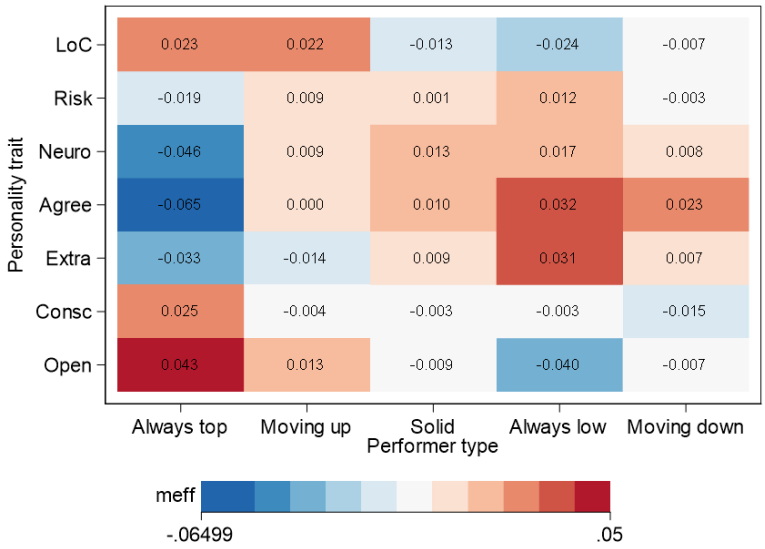
A.3 Wage trajectories

Figure A.9: Career-trajectory types men



Coefficient plot showing β_1, β_2 and β_3 of the equations (3) for men when significant at the 10 percent level. Data source: SOEP-CMI-ADIAB.

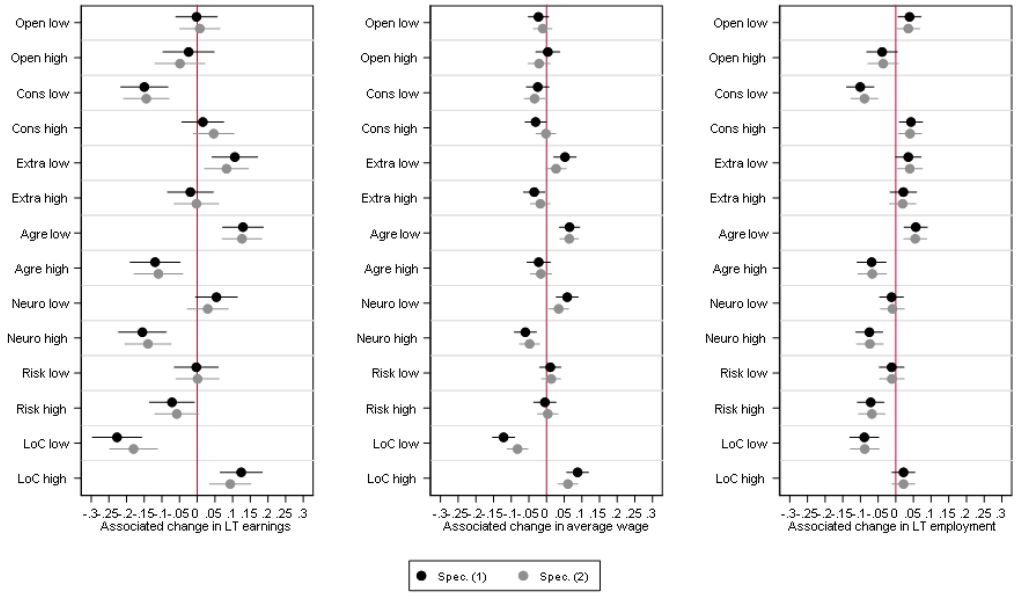
Figure A.10: Career-trajectory types women



Coefficient plot showing β_1, β_2 and β_3 of the equations (3) for women when significant at the 10 percent level. Data source: SOEP-CMI-ADIAB.

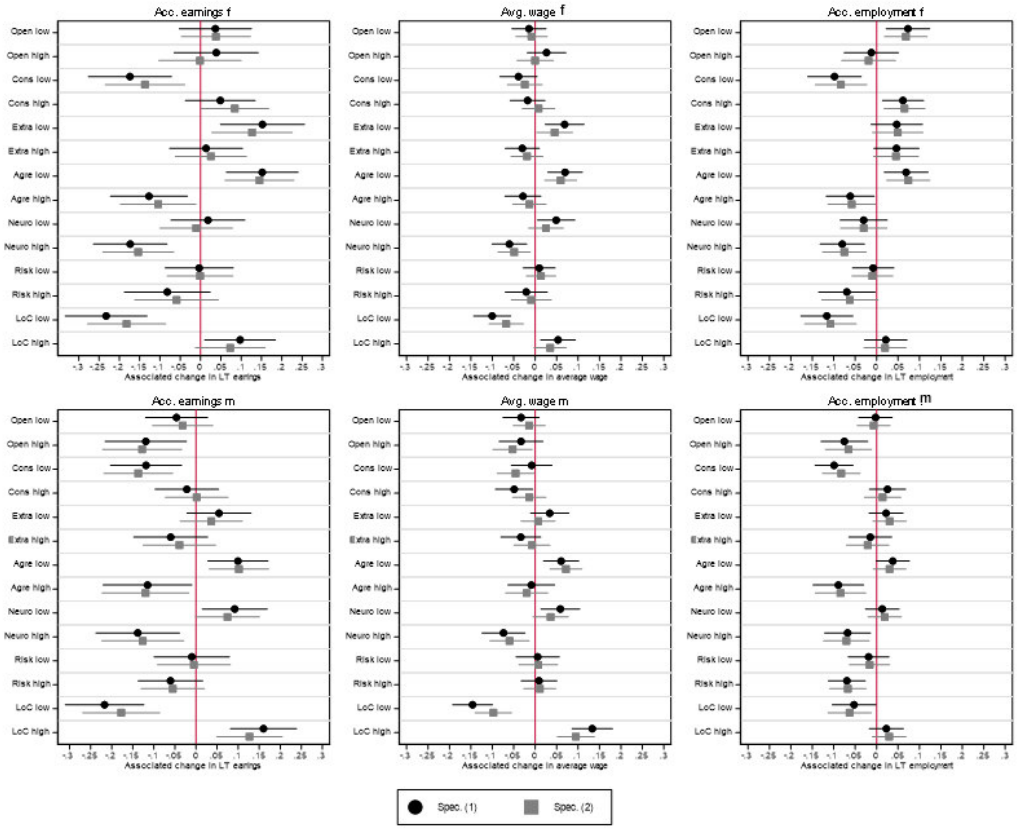
A.4 Non-linear traits

Figure A.11: Personality and earnings accumulation nonlinear



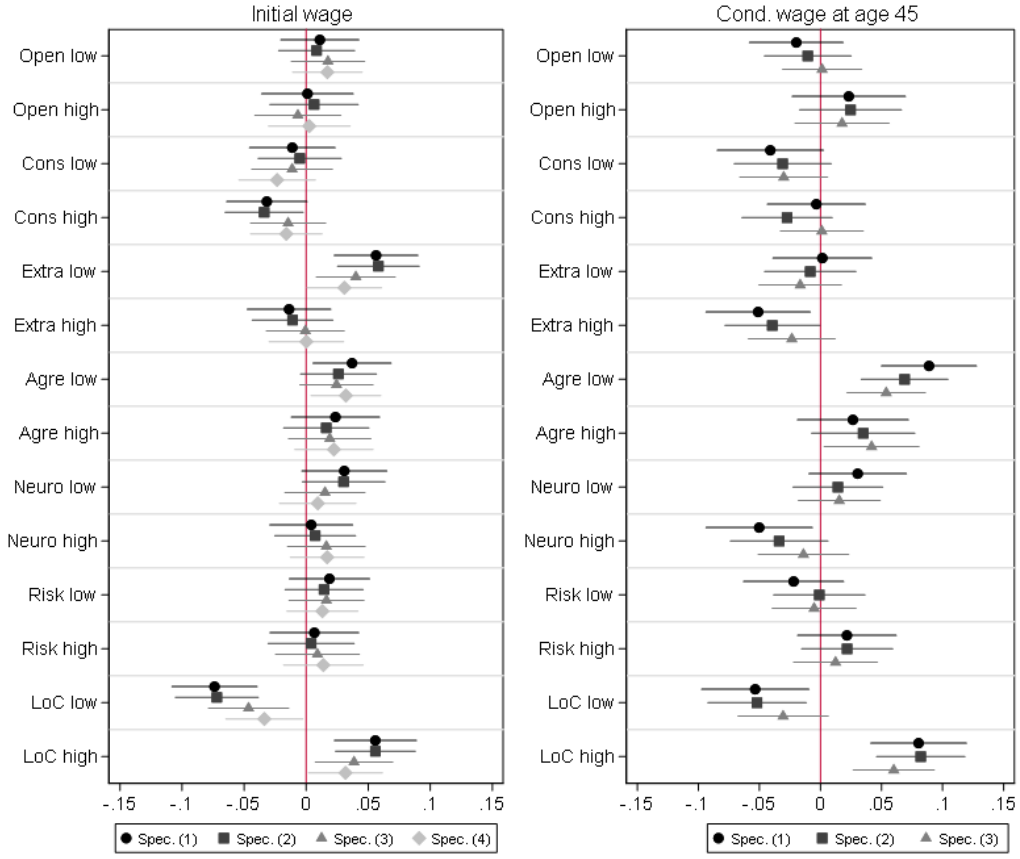
Coefficient plot showing regression coefficients for terciles of the personality traits. "high" refers to top tercile, "low" to bottom tercile. Reference is the middle tercile. Left panel accumulated earnings, middle panel average wages, right panel experience up to age 45. All outcomes measured in logs. Spec. (1) includes cohort controls, Spec (2) additionally education controls. Data source: SOEP-CMI-ADIAB7523v1.

Figure A.12: Personality and earnings accumulation nonlinear by gender



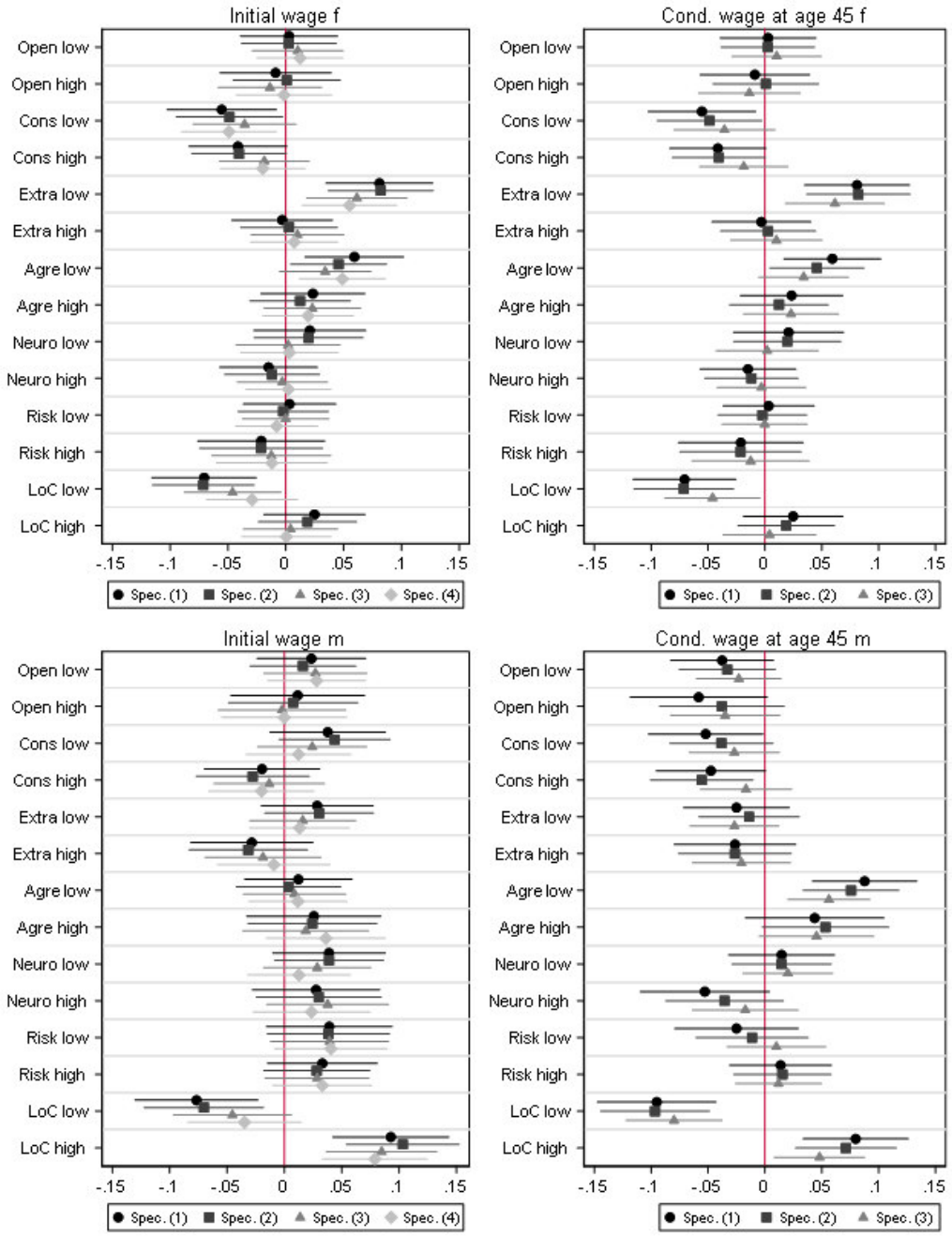
Coefficient plot showing regression coefficients for terciles of the personality traits. "high" refers to top tercile, "low" to bottom tercile. Reference is the middle tercile. Left panel accumulated earnings, middle panel average wages, right panel experience up to age 45. All outcomes measured in logs. Top row females, bottom row males. Spec. (1) includes cohort controls, Spec (2) additionally education controls. Data source: SOEP-CMI-ADIAB7523v1.

Figure A.13: Wage dynamics nonlinear



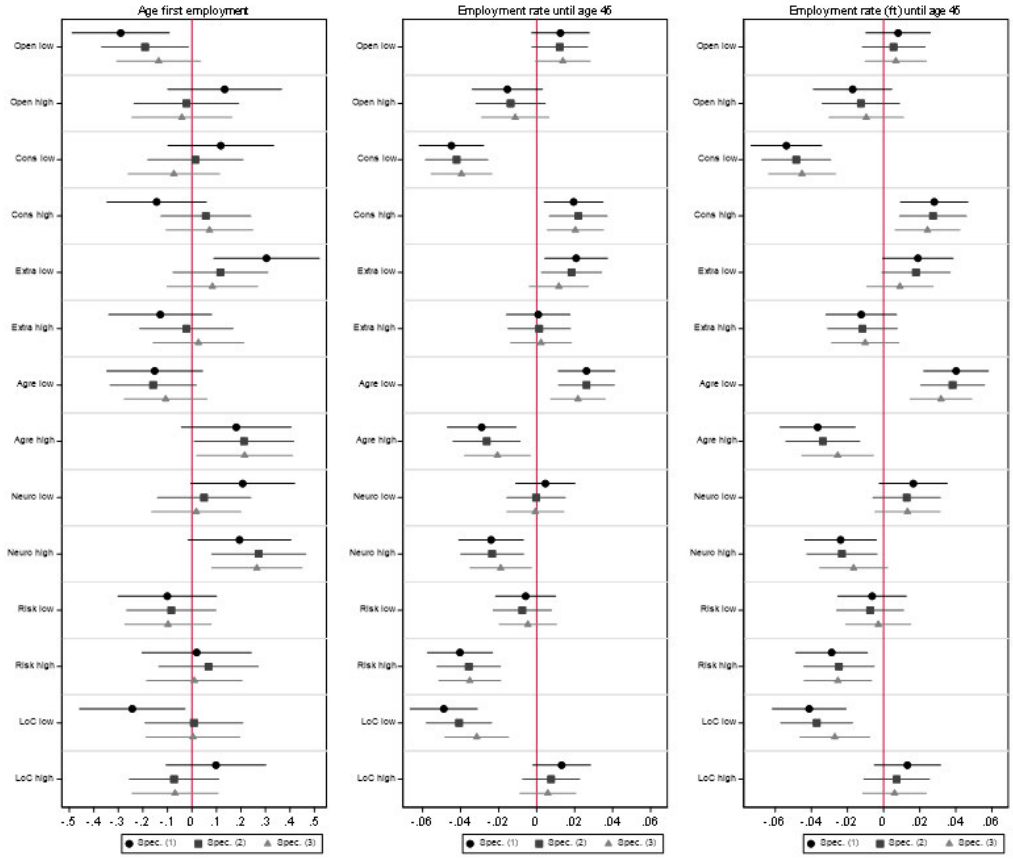
Coefficient plot showing regression coefficients for terciles of the personality traits. "high" refers to top tercile, "low" to bottom tercile. Reference is the middle tercile. In the left column, Spec. (1) includes cohort controls, Spec (2) additionally education at first employment, and Spec (3) additionally includes task level and sector at first employment. In columns 2, Spec (1) includes cohorts, the wage, education, task level, and sector at first employment, and Spec (2) additionally includes education and task level and sector at age 45. Data source: SOEP-CMI-ADIAB7523v1.

Figure A.14: Wage dynamics by gender nonlinear



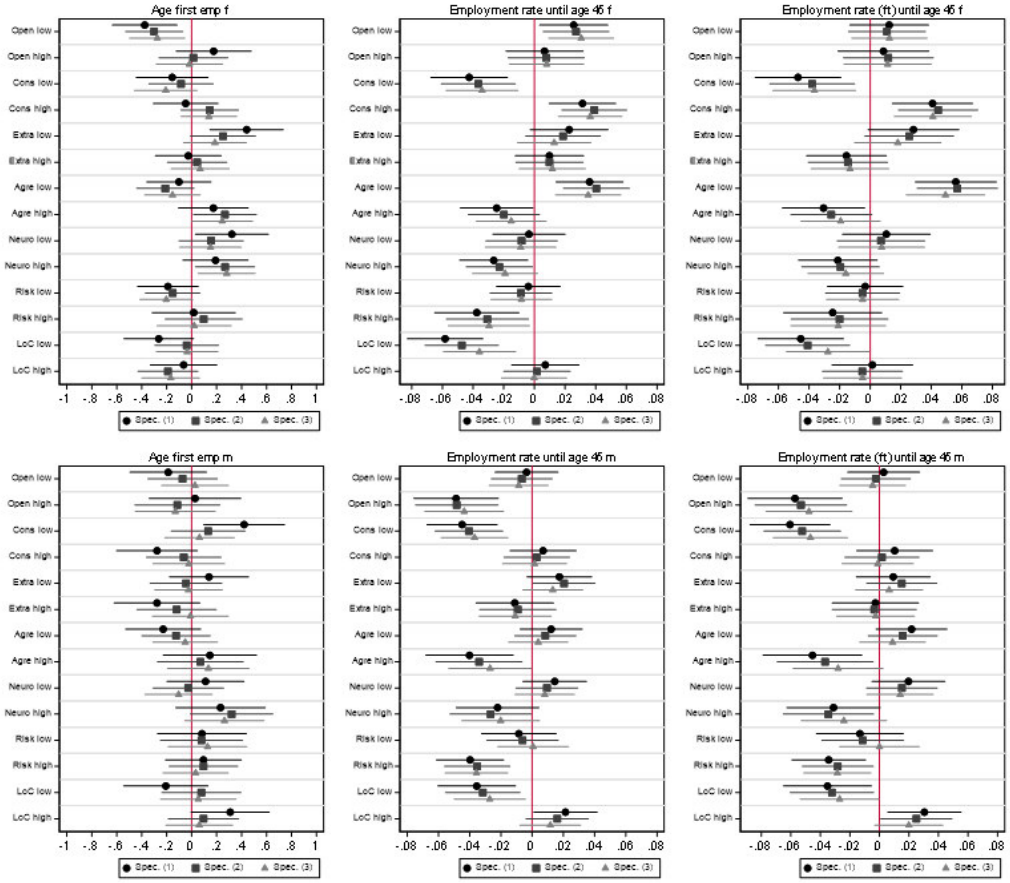
Coefficient plot showing regression coefficients for terciles of the personality traits. "high" refers to top tercile, "low" to bottom tercile. Reference is the middle tercile. Top row females, bottom row males. In the left column, Spec. (1) includes cohort controls, Spec (2) additionally education at first employment, and Spec (3) additionally includes task level and sector at first employment. In columns 2, Spec (1) includes cohorts, the wage, education, task level, and sector at first employment, and Spec (2) additionally includes education and task level and sector at age 45. Data source: SOEP-CMI-ADIAB7523v1.

Figure A.15: Employment dynamics nonlinear



Coefficient plot showing regression coefficients for terciles of the personality traits. "high" refers to top tercile, "low" to bottom tercile. Reference is the middle tercile. In the left column, Spec. (1) includes cohort controls, Spec (2) additionally education at first employment, and Spec (3) additionally includes task level and sector at first employment. In columns 2 and 3, Spec (1) includes cohorts, education, task level, and sector at first employment, and Spec (2) additionally includes education and task level and sector at age 45. Data source: SOEP-CMI-ADIAB7523v1.

Figure A.16: Employment dynamics by gender nonlinear



Coefficient plot showing regression coefficients for terciles of the personality traits. "high" refers to top tercile, "low" to bottom tercile. Reference is the middle tercile. Top row females, bottom row males. In the left column, Spec. (1) includes cohort controls, Spec (2) additionally education at first employment, and Spec (3) additionally includes task level and sector at first employment. In columns 2 and 3, Spec (1) includes cohorts, education, task level, and sector at first employment, and Spec (2) additionally includes education and task level and sector at age 45. Data source: SOEP-CMI-ADIAB7523v1.

B Regression tables

B.1 Accumulated earnings, average wages, and employment

Table B.1: Accumulated earnings, average wages and employment duration

	(1) Acc. earnings	(2) Acc. earnings	(3) Avg wage	(4) Avg wage	(5) Acc. employment	(6) Acc. employment
Open	-0.0162	-0.0305*	0.00995	-0.00528	-0.0335***	-0.0311***
	(0.0158)	(0.0154)	(0.00747)	(0.00682)	(0.00905)	(0.00906)
Cons	0.0803***	0.0905***	-0.000304	0.0152*	0.0636***	0.0578***
	(0.0161)	(0.0157)	(0.00741)	(0.00673)	(0.00907)	(0.00912)
Extra	-0.0508***	-0.0349*	-0.0324***	-0.0144*	-0.00524	-0.00894
	(0.0152)	(0.0147)	(0.00743)	(0.00672)	(0.00857)	(0.00849)
Agre	-0.101***	-0.0966***	-0.0431***	-0.0400***	-0.0424***	-0.0414***
	(0.0143)	(0.0135)	(0.00683)	(0.00607)	(0.00835)	(0.00820)
Neuro	-0.0900***	-0.0723***	-0.0467***	-0.0309***	-0.0271**	-0.0274**
	(0.0164)	(0.0159)	(0.00759)	(0.00687)	(0.00989)	(0.00977)
Risk	-0.0318*	-0.0242	-0.0133	-0.00826	-0.0215*	-0.0201*
	(0.0148)	(0.0144)	(0.00712)	(0.00655)	(0.00866)	(0.00861)
LoC	0.141***	0.107***	0.0910***	0.0620***	0.0404***	0.0398***
	(0.0161)	(0.0158)	(0.00737)	(0.00688)	(0.00953)	(0.00962)
Women	-0.718***	-0.740***	-0.403***	-0.419***	-0.197***	-0.200***
	(0.0280)	(0.0275)	(0.0138)	(0.0128)	(0.0163)	(0.0163)
1960s	-0.0639	-0.101*	-0.00935	-0.0347	-0.0100	-0.0163
	(0.0443)	(0.0440)	(0.0201)	(0.0186)	(0.0292)	(0.0292)
1970s	-0.0650	-0.110*	-0.0745***	-0.114***	0.0623*	0.0622*
	(0.0446)	(0.0440)	(0.0208)	(0.0192)	(0.0285)	(0.0286)
Voc.train. no HS		0.470***		0.159***		0.224***
		(0.0545)		(0.0217)		(0.0331)
Voc.train. HS		0.650***		0.373***		0.169***
		(0.0604)		(0.0259)		(0.0361)
Tertiary		0.825***		0.617***		0.0945**
		(0.0615)		(0.0280)		(0.0364)
Constant	13.41***	12.97***	4.601***	4.405***	8.782***	8.610***
	(0.0420)	(0.0613)	(0.0196)	(0.0256)	(0.0271)	(0.0379)
N	4353	4353	4353	4353	4353	4353

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table B.2: Accumulated earnings, average wages and employment duration (nonlinear)

	(1) Acc. earnings	(2) Acc. earnings	(3) Avg wage	(4) Avg wage	(5) Acc. employment	(6) Acc. employment
Open low	-0.00209	0.00718	-0.0228	-0.0108	0.0388*	0.0354*
	(0.0300)	(0.0290)	(0.0148)	(0.0134)	(0.0168)	(0.0165)
Open high	-0.0244	-0.0489	0.00364	-0.0210	-0.0386	-0.0358
	(0.0369)	(0.0362)	(0.0173)	(0.0160)	(0.0221)	(0.0221)
Cons low	-0.150***	-0.144***	-0.0249	-0.0338*	-0.101***	-0.0886***
	(0.0341)	(0.0330)	(0.0164)	(0.0151)	(0.0199)	(0.0195)
Cons high	0.0159	0.0464	-0.0310*	-0.00158	0.0430*	0.0404*
	(0.0303)	(0.0296)	(0.0153)	(0.0141)	(0.0170)	(0.0169)
Extra low	0.106**	0.0827**	0.0522**	0.0270	0.0354	0.0396*
	(0.0330)	(0.0318)	(0.0163)	(0.0147)	(0.0186)	(0.0183)
Extra high	-0.0194	-0.00232	-0.0348*	-0.0175	0.0214	0.0195
	(0.0330)	(0.0323)	(0.0155)	(0.0144)	(0.0193)	(0.0192)
Agre low	0.129***	0.127***	0.0651***	0.0643***	0.0564***	0.0550***
	(0.0294)	(0.0286)	(0.0147)	(0.0134)	(0.0167)	(0.0166)
Agre high	-0.119***	-0.110**	-0.0221	-0.0160	-0.0683**	-0.0667**
	(0.0361)	(0.0352)	(0.0170)	(0.0156)	(0.0210)	(0.0208)
Neuro low	0.0543	0.0297	0.0585***	0.0343*	-0.0120	-0.00950
	(0.0303)	(0.0298)	(0.0159)	(0.0146)	(0.0174)	(0.0172)
Neuro high	-0.155***	-0.139***	-0.0600***	-0.0480**	-0.0748***	-0.0733***
	(0.0344)	(0.0333)	(0.0161)	(0.0148)	(0.0195)	(0.0193)
Risk low	-0.00260	0.00104	0.0107	0.0133	-0.0118	-0.0112
	(0.0319)	(0.0308)	(0.0153)	(0.0140)	(0.0180)	(0.0178)
Risk high	-0.0715*	-0.0580	-0.00461	0.00349	-0.0710***	-0.0677***
	(0.0324)	(0.0318)	(0.0163)	(0.0150)	(0.0193)	(0.0192)
LoC low	-0.227***	-0.180***	-0.121***	-0.0820***	-0.0890***	-0.0879***
	(0.0357)	(0.0344)	(0.0162)	(0.0150)	(0.0210)	(0.0208)
LoC high	0.124***	0.0934**	0.0879***	0.0606***	0.0218	0.0219
	(0.0304)	(0.0300)	(0.0157)	(0.0145)	(0.0167)	(0.0167)
voc.train. no HS		0.473***		0.162***		0.223***
		(0.0543)		(0.0218)		(0.0326)
voc.train. HS		0.651***		0.377***		0.165***
		(0.0601)		(0.0260)		(0.0356)
tertiary		0.831***		0.624***		0.0938**
		(0.0615)		(0.0282)		(0.0361)
1960s	-0.0753	-0.111*	-0.0160	-0.0396*	-0.0138	-0.0201
	(0.0440)	(0.0439)	(0.0199)	(0.0185)	(0.0291)	(0.0292)
1970s	-0.0768	-0.120**	-0.0803***	-0.118***	0.0579*	0.0578*
	(0.0444)	(0.0440)	(0.0207)	(0.0192)	(0.0284)	(0.0285)
Constant	13.49***	13.03***	4.611***	4.403***	8.834***	8.659***
	(0.0547)	(0.0682)	(0.0268)	(0.0299)	(0.0331)	(0.0418)
Women	-0.726***	-0.748***	-0.406***	-0.421***	-0.196***	-0.199***
	(0.0275)	(0.0270)	(0.0137)	(0.0127)	(0.0158)	(0.0158)
N	4353	4353	4353	4353	4353	4353

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table B.3: Accumulated earnings, average wages and employment duration (men)

	(1) Acc. earnings	(2) Acc. earnings	(3) Avg wage	(4) Avg wage	(5) Acc. employment	(6) Acc. employment
Open	-0.0335	-0.0461*	0.00159	-0.0167	-0.0318**	-0.0262*
	(0.0211)	(0.0205)	(0.0113)	(0.0101)	(0.0119)	(0.0119)
Cons	0.0556*	0.0723***	-0.0157	0.0132	0.0638***	0.0527***
	(0.0218)	(0.0218)	(0.0110)	(0.00989)	(0.0120)	(0.0124)
Extra	-0.0368	-0.0206	-0.0229*	0.00173	-0.0119	-0.0199*
	(0.0194)	(0.0187)	(0.0107)	(0.00954)	(0.0101)	(0.00987)
Agre	-0.0888***	-0.0899***	-0.0417***	-0.0475***	-0.0389***	-0.0350***
	(0.0180)	(0.0174)	(0.00959)	(0.00857)	(0.00991)	(0.00981)
Neuro	-0.0843***	-0.0718**	-0.0483***	-0.0323**	-0.0252*	-0.0289*
	(0.0225)	(0.0219)	(0.0113)	(0.0103)	(0.0128)	(0.0126)
Risk	-0.0285	-0.0254	-0.00214	0.000183	-0.0240*	-0.0236*
	(0.0185)	(0.0181)	(0.0101)	(0.00916)	(0.0108)	(0.0106)
LoC	0.162***	0.130***	0.125***	0.0859***	0.0291**	0.0372***
	(0.0199)	(0.0199)	(0.0106)	(0.00986)	(0.0109)	(0.0111)
1960s	-0.125*	-0.145**	-0.0544	-0.0680**	-0.0666*	-0.0704*
	(0.0531)	(0.0521)	(0.0284)	(0.0233)	(0.0321)	(0.0318)
1970s	-0.198***	-0.217***	-0.146***	-0.164***	-0.0412	-0.0403
	(0.0551)	(0.0536)	(0.0305)	(0.0252)	(0.0318)	(0.0316)
_cons	13.50***	13.19***	4.649***	4.444***	8.855***	8.790***
	(0.0495)	(0.0722)	(0.0262)	(0.0336)	(0.0299)	(0.0395)
voc.train. no HS		0.318***		0.148***		0.112***
		(0.0649)		(0.0312)		(0.0332)
voc.train. HS		0.436***		0.368***		0.0206
		(0.0777)		(0.0409)		(0.0377)
tertiary		0.621***		0.638***		-0.0603
		(0.0762)		(0.0393)		(0.0396)
N	1918	1918	1918	1918	1918	1918

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table B.4: Accumulated earnings, average wages and employment duration (women)

	(1) Acc. earnings	(2) Acc. earnings	(3) Avg wage	(4) Avg wage	(5) Acc. employment	(6) Acc. employment
Open	-0.00505	-0.0196	0.0154	0.00301	-0.0349**	-0.0346**
	(0.0224)	(0.0219)	(0.00991)	(0.00920)	(0.0129)	(0.0128)
Cons	0.104***	0.103***	0.0121	0.0165	0.0648***	0.0605***
	(0.0238)	(0.0225)	(0.00990)	(0.00910)	(0.0137)	(0.0133)
Extra	-0.0640**	-0.0507*	-0.0405***	-0.0277**	0.000108	-0.00169
	(0.0232)	(0.0223)	(0.0103)	(0.00944)	(0.0135)	(0.0134)
Agre	-0.113***	-0.101***	-0.0443***	-0.0337***	-0.0448***	-0.0457***
	(0.0218)	(0.0206)	(0.00967)	(0.00865)	(0.0131)	(0.0128)
Neuro	-0.0954***	-0.0740**	-0.0473***	-0.0325***	-0.0285*	-0.0257
	(0.0233)	(0.0226)	(0.0103)	(0.00932)	(0.0143)	(0.0142)
Risk	-0.0297	-0.0186	-0.0196*	-0.0141	-0.0177	-0.0141
	(0.0220)	(0.0214)	(0.00985)	(0.00917)	(0.0129)	(0.0129)
LoC	0.124***	0.0911***	0.0638***	0.0424***	0.0489***	0.0435**
	(0.0241)	(0.0234)	(0.0101)	(0.00949)	(0.0146)	(0.0146)
1960s	-0.0163	-0.0681	0.0242	-0.00865	0.0313	0.0217
	(0.0666)	(0.0667)	(0.0280)	(0.0275)	(0.0449)	(0.0450)
1970s	0.0378	-0.0334	-0.0217	-0.0751**	0.140**	0.135**
	(0.0658)	(0.0658)	(0.0283)	(0.0278)	(0.0434)	(0.0437)
_cons	12.63***	12.04***	4.157***	3.953***	8.531***	8.257***
	(0.0604)	(0.0956)	(0.0251)	(0.0359)	(0.0416)	(0.0628)
voc.train. no HS		0.614***		0.166***		0.330***
		(0.0851)		(0.0300)		(0.0549)
voc.train. HS		0.822***		0.374***		0.291***
		(0.0904)		(0.0337)		(0.0584)
tertiary		1.005***		0.593***		0.233***
		(0.0943)		(0.0396)		(0.0591)
N	2435	2435	2435	2435	2435	2435

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

B.2 Employment dynamics

Table B.5: Age at first employment (with social security contributions)

	(1) Spec. (1)	(2) Spec. (2)	(3) Spec. (3)
Open	0.156**	0.0484	0.0108
	(0.0486)	(0.0436)	(0.0424)
Cons	-0.121*	0.00357	0.0488
	(0.0491)	(0.0442)	(0.0426)
Extra	-0.150**	-0.0185	0.0192
	(0.0502)	(0.0449)	(0.0430)
Agre	0.112*	0.132**	0.106**
	(0.0458)	(0.0418)	(0.0399)
Neuro	-0.0253	0.0784	0.0881*
	(0.0497)	(0.0447)	(0.0430)
Risk	0.0188	0.0473	0.0365
	(0.0481)	(0.0442)	(0.0425)
LoC	0.155**	-0.0301	-0.0330
	(0.0475)	(0.0449)	(0.0433)
1960s	1.520***	1.382***	1.334***
	(0.150)	(0.129)	(0.124)
1970s	1.809***	1.555***	1.406***
	(0.148)	(0.125)	(0.121)
Women	-0.0987	-0.200*	-0.414***
	(0.0944)	(0.0863)	(0.0896)
voc. train no HS		-0.0409	-0.00469
		(0.140)	(0.137)
voc. train HS		1.591***	1.422***
		(0.157)	(0.154)
tertiary		3.627***	2.635***
		(0.183)	(0.194)
Sector control	no	no	yes
Job level control	no	no	yes
[1em] Constant	20.53***	20.08***	22.20***
	(0.147)	(0.172)	(0.523)
N	4353	4353	4353

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table B.6: Employment rate between first employment and age 45

	All employment			Full-time employment		
	(1) Spec. (1)	(2) Spec. (2)	(3) Spec. (3)	(4) Spec. (1)	(5) Spec. (2)	(6) Spec. (3)
Open	-0.0136***	-0.0127***	-0.0122**	-0.0109*	-0.00762	-0.00641
	(0.00388)	(0.00384)	(0.00377)	(0.00453)	(0.00447)	(0.00432)
Cons	0.0300***	0.0300***	0.0289***	0.0373***	0.0350***	0.0332***
	(0.00391)	(0.00383)	(0.00380)	(0.00447)	(0.00441)	(0.00432)
Extra	-0.00675	-0.00632	-0.00348	-0.0100*	-0.0108*	-0.00676
	(0.00385)	(0.00374)	(0.00367)	(0.00462)	(0.00447)	(0.00434)
Agre	-0.0204***	-0.0198***	-0.0164***	-0.0308***	-0.0290***	-0.0238***
	(0.00371)	(0.00356)	(0.00347)	(0.00438)	(0.00428)	(0.00413)
Neuro	-0.0126**	-0.0106**	-0.00950*	-0.0148**	-0.0134**	-0.0117**
	(0.00403)	(0.00395)	(0.00386)	(0.00460)	(0.00455)	(0.00440)
Risk	-0.0134***	-0.0106**	-0.0114**	-0.0105*	-0.00831	-0.0102*
	(0.00390)	(0.00378)	(0.00370)	(0.00449)	(0.00436)	(0.00421)
LoC	0.0228***	0.0168***	0.0113**	0.0212***	0.0170***	0.0112**
	(0.00393)	(0.00389)	(0.00385)	(0.00441)	(0.00436)	(0.00426)
1960s	0.0339**	0.0359**	0.0403**	-0.0115	-0.00697	-0.00129
	(0.0131)	(0.0131)	(0.0128)	(0.0141)	(0.0141)	(0.0137)
1970s	0.0688***	0.0738***	0.0790***	-0.0465**	-0.0367*	-0.0311*
	(0.0130)	(0.0130)	(0.0128)	(0.0142)	(0.0143)	(0.0138)
Women	-0.117***	-0.120***	-0.104***	-0.336***	-0.325***	-0.296***
	(0.00729)	(0.00782)	(0.00800)	(0.00867)	(0.00942)	(0.00964)
Initial education controls	No	Yes	Yes	No	Yes	Yes
Initial sector controls	No	Yes	Yes	No	Yes	Yes
Initial job-level controls	No	Yes	Yes	No	Yes	Yes
Age-45 sector controls	No	No	Yes	No	No	Yes
Age-45 job-level controls	No	No	Yes	No	No	Yes
Age-45 education controls	No	No	Yes	No	No	Yes
Constant	0.766***	0.581***	0.554***	0.790***	0.612***	0.601***
	(0.0126)	(0.0486)	(0.0491)	(0.0136)	(0.0558)	(0.0576)
Observations	4353	4353	4353	4353	4353	4353

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

B.3 Wage dynamics

Table B.7: Initial wages

	(1) log first wage	(2) log first wage	(3) log first wage	(4) log first wage
Open	-0.00903	-0.00469	-0.0142	-0.00973
	(-1.12)	(-0.61)	(-1.90)	(-1.37)
Consc	-0.00613	-0.00903	0.00149	0.00487
	(-0.79)	(-1.23)	(0.21)	(0.72)
Extra	-0.0176*	-0.0197*	-0.00717	-0.00420
	(-2.24)	(-2.57)	(-0.98)	(-0.60)
Agree	-0.0157*	-0.0128	-0.0103	-0.0114
	(-2.18)	(-1.82)	(-1.52)	(-1.77)
Neuro	-0.0169*	-0.0148	-0.00413	-0.00130
	(-2.09)	(-1.88)	(-0.55)	(-0.19)
Risk	-0.0148	-0.0140	-0.0111	-0.00715
	(-1.90)	(-1.86)	(-1.53)	(-1.05)
LoC	0.0507***	0.0488***	0.0300***	0.0219**
	(6.55)	(6.57)	(4.15)	(3.19)
Female	-0.148***	-0.125***	-0.134***	-0.109***
	(-9.83)	(-8.42)	(-9.28)	(-7.44)
Cohort 1960s	0.0683**	0.0754**	0.0604**	0.0688**
	(2.81)	(3.12)	(2.59)	(3.19)
Cohort 1970s	0.152***	0.180***	0.157***	0.168***
	(6.22)	(7.42)	(6.74)	(7.80)
fulltime		0.375***	0.412***	0.389***
		(14.26)	(15.64)	(14.71)
voc.train. no HS			0.0517*	0.0469*
			(2.42)	(2.34)
voc.train. HS			0.218***	0.157***
			(8.71)	(6.57)
tertiary			0.372***	0.245***
			(12.36)	(7.91)
Sector controls	No	No	No	Yes
Job level controls	No	No	No	Yes
Constant	3.992***	3.622***	3.498***	2.922***
	(168.54)	(101.89)	(92.86)	(22.07)
Observations	4312	4308	4308	4308

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table B.8: Wage at age 45

	(1) log wage 45	(2) log wage 45	(3) log wage 45
Open	0.0197*	0.0151	0.00918
	(2.05)	(1.72)	(1.11)
Consc	0.0142	-0.00135	0.0120
	(1.38)	(-0.14)	(1.38)
Extra	-0.0245**	-0.0159	-0.00573
	(-2.62)	(-1.87)	(-0.74)
Agree	-0.0339***	-0.0186*	-0.0112
	(-3.74)	(-2.26)	(-1.50)
Neuro	-0.0281**	-0.0156	-0.00921
	(-2.88)	(-1.69)	(-1.10)
Risk	0.0148	0.00736	0.00482
	(1.51)	(0.82)	(0.59)
LoC	0.0612***	0.0591***	0.0396***
	(6.26)	(6.63)	(4.82)
log first wage	0.139***	0.143***	0.121***
	(6.65)	(7.30)	(6.79)
fulltime first	-0.0508	-0.0664*	-0.0729*
	(-1.37)	(-2.01)	(-2.38)
Female	-0.509***	-0.268***	-0.247***
	(-24.29)	(-11.98)	(-12.10)
Cohort 1960s	-0.0841**	-0.0722*	-0.0559*
	(-2.78)	(-2.57)	(-2.10)
Cohort 1970s	-0.0901**	-0.0491	-0.0361
	(-2.94)	(-1.75)	(-1.34)
Fulltime age 45		0.491***	0.437***
		(21.14)	(20.34)
First sector	Yes	Yes	Yes
First job level	Yes	Yes	Yes
First educ	Yes	Yes	Yes
Sector age 45	No	No	Yes
Job level age 45	No	No	Yes
Education age 45	No	No	Yes
Constant	3.775***	3.265***	3.842***
	(30.61)	(28.98)	(23.42)
Observations	3360	3360	3360

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

B.4 Transitions, benefits, and non-employment

Table B.9: Transitions, benefits, and non-employment

	Transitions		Benefits		Nonemployment	
	Spec. (1)	Spec. (2)	Spec. (1)	Spec. (2)	Spec. (1)	Spec. (2)
Open	0.0079**	0.0065*	0.0033	0.0040	11.7840*	13.6947*
	(0.0030)	(0.0026)	(0.0039)	(0.0025)	(5.6312)	(5.7835)
Cons	-0.0103***	-0.0107***	-0.0078*	-0.0032	-25.7164***	-22.4495***
	(0.0028)	(0.0025)	(0.0039)	(0.0023)	(5.5536)	(5.5585)
Extra	0.0094**	0.0057*	0.0108**	0.0016	-10.0445	-13.1445*
	(0.0029)	(0.0026)	(0.0038)	(0.0023)	(5.6891)	(5.9958)
Agre	0.0062*	0.0024	0.0126***	0.0046*	16.9342**	13.6894**
	(0.0028)	(0.0024)	(0.0038)	(0.0021)	(5.3832)	(5.2122)
Neuro	0.0078**	0.0048	0.0198***	0.0077**	2.6002	-4.7462
	(0.0029)	(0.0026)	(0.0039)	(0.0024)	(5.7713)	(5.9923)
Risk	0.0185***	0.0137***	0.0173***	0.0098***	-6.1742	-8.5075
	(0.0029)	(0.0026)	(0.0039)	(0.0024)	(5.5072)	(5.6297)
LoC	-0.0178***	-0.0060*	-0.0370***	-0.0135***	-12.6212*	-1.8975
	(0.0029)	(0.0026)	(0.0038)	(0.0023)	(5.7781)	(6.3057)
Age	-0.0364***	-0.0352***	-0.0058*	-0.0074***	25.9103***	23.8644**
	(0.0028)	(0.0027)	(0.0027)	(0.0022)	(7.0723)	(7.6212)
Age^2	0.0004***	0.0004***	-0.0000	0.0000	-0.3648***	-0.3351**
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.1049)	(0.1120)
Female	0.0249***	0.0245***	-0.0102	-0.0107*	85.9176***	88.3813***
	(0.0056)	(0.0052)	(0.0073)	(0.0047)	(10.4383)	(11.4367)
Year controls	Yes	Yes	Yes	Yes	Yes	Yes
Education controls	No	Yes	No	Yes	No	Yes
Sector controls	No	Yes	No	Yes	No	Yes
Job-level controls	No	Yes	No	Yes	No	Yes
Constant	0.8347***	0.8868***	0.1062**	0.1474***	708.6525	805.0132
	(0.0939)	(0.0962)	(0.0370)	(0.0301)	(989.7663)	(992.3793)
N	83616	78879	87397	80770	20379	17488

Standard errors in parentheses.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.10: Decomposition of personality-related variation in earnings accumulation

Specification	Employment share (in %)	Wage share (in %)	Covariance share (in %)
Joint			
Without education	23.4	36.9	39.6
With education	28.8	25.9	45.3
Men			
Without education	17.6	51.3	31.1
With education	21.5	36.3	42.2
Women			
Without education	29.3	28.3	42.5
With education	36.1	20.0	43.9

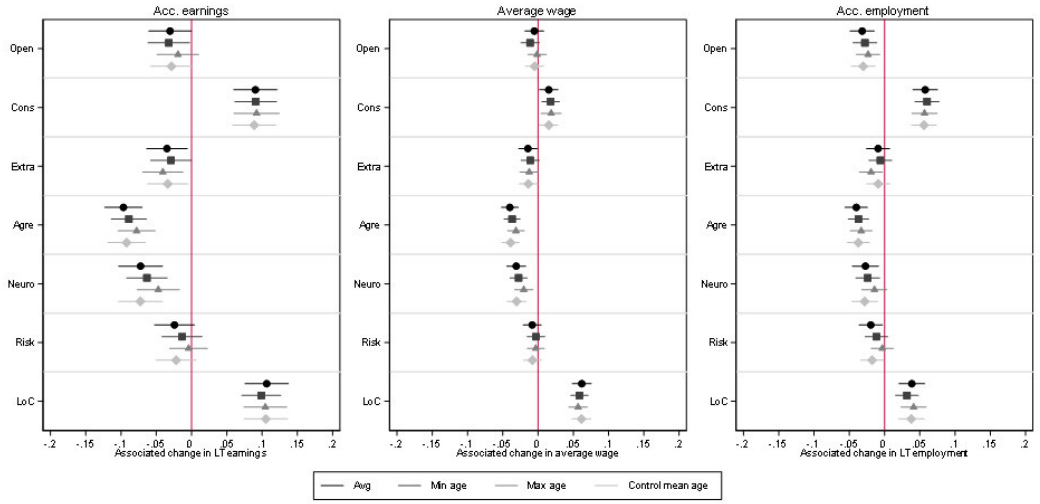
Notes: The table decomposes the personality-related variation in earnings accumulation into an employment component, a wage component, and a covariance component using the identity $\log(AccE_i) = \log(AccEmp_i) + \log(\bar{w}_i)$. Shares are based on the variance decomposition

$$Var(p^{earn}) = Var(p^{emp}) + Var(p^{wage}) + 2Cov(p^{emp}, p^{wage}),$$

where p^{emp} and p^{wage} denote the personality-predicted components of accumulated employment and average wages, respectively.

C Robustness

Figure C.1: Robustness: Different measurements of personality traits



Coefficient plots showing regression coefficients for regressions of accumulated earnings, average wages, and accumulated employment on personality traits. Spec. (1) resembles the main specification as depicted in Figure 4, where individuals means of personality measurements are considered. In Spec (2) the measurement of personality is altered to the earliest measurement, in Spec (3) to the last measurement. Spec (4) is based on Spec (1) but additionally includes a control for the average age of personality measurement. Data source: SOEP-CMI-ADIAB7523v1.