Consequences of voluntary job changes in Germany: A multilevel analysis for 1985–2013

Markus Latzke [a,*], Ralph Kattenbach [b], Thomas Schneidhofer [c], Florian Schramm [d], Wolfgang Mayrhofer [a]

[a] WU Vienna University of Economics and Business, Welthandelsplatz 1, 1020 Vienna, Austria
[b] Tongji University, Sino-German School of Postgraduate Studies, 505 Chifeng Str. 50, Shanghai, China
[c] University Seeburg Castle, Seeburgstraße 8, 5201 Seekirchen am Wallersee, Austria
[d] University of Hamburg, Von-Melle-Park 9, 20146 Hamburg, Germany

ARTICLE INFO

ABSTRACT

Analyzing the development of the consequences of voluntary job changes in Germany between 1985 and 2013, the study focuses on income gains and job satisfaction increases. Drawing on arguments of the job-search literature on the one hand and the proliferation of choices on the other we investigate whether the returns of job changes have increased or decreased. Results show that income gains have decreased over time while the job satisfaction surplus has remained stable. We further conclude that in determining the outcomes of job changes over time, structural factors seem to be more important than individual ones.

© 2016 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

1. Introduction

Arguably, voluntary job changes (VJC) have to bear positive consequences for the individual changing jobs. Although many studies tend to combine voluntary with involuntary turnover (Capelli & Hamori, 2007, p. 331), all of them show that employees utilize their employability (Forrier, Verbruggen, & De Cuyper, 2015) for the sake of an increased salary (Lam, Ng, & Feldman, 2012) or a higher level of satisfaction (Rigotti, Korek, & Otto, 2014). But in a career context within which the ease of movement and the desirability of change – the two main antecedents of VJC – are said to increase (Direnzo & Greenhaus, 2011), the VJC-consequences relationship is likely to change as well, at least from a longitudinal perspective.

Change and stability in careers have been intensively investigated over the past few years, not least because the context of careers is coming increasingly into focus (Arnold & Cohen, 2008). Some authors argue that based on economic developments, organizations increasingly turn to the external labor market and are hesitant to establish long-term contracts with their employees (Cappelli, 1999). Due to delayering and outsourcing, career advancement within one organization becomes rather the exception than the rule (Arthur & Rousseau, 1996). The feeling of job security declines (Smith, 2010), and individuals become aware of the importance of remaining employable (Baruch, 2001) and developing transferable career competencies (DeFillippi & Arthur, 1994) or career capital (Latzke, Schneidhofer, Pernkopf, Rohr, & Mayrhofer, 2015).

---

* Corresponding author.
  E-mail address: markus.latzke@wu.ac.at (M. Latzke).

All these factors contribute to the fact that job change behavior has become modified (Direnzo & Greenhaus, 2011), so that e.g. job search takes place continuously in light of the required employability. Nevertheless it remains unresolved whether these developments in the career context eventually lead to a change in income gains, or satisfaction surpluses, over time.

Well aware that there are critical voices doubting the assertions of the so-called new careers literature theoretically (Inkson, Gunz, Ganesh, & Roper, 2012) and empirically (Rodrigues & Guest, 2010), we add to this debate and test whether its assumptions hold for the consequences of job changes in the context of Germany. Additionally, we take advantage of the psychological literature on cognition for tackling the development of job satisfaction.

In several ways, Germany is a unique context when it comes to careers in general and job changes in particular. First, in the international comparison it is, overall, a highly regulated work environment. Indicators of this are an extensive labor law governing working hours, hire and lay-off procedures, working conditions, etc. as well as the strong role of trade unions and works councils as reflected, for example, in collective and plant agreements (Hall & Soskice, 2001). Second, Germany has undergone quite significant deregulation over the past two decades. Major indicators are the reduced coverage of workers by collective agreements (Ellguth & Kohaut, 2013), the emergence of legally covered low-paid jobs ('1 Euro jobs'), and the loosening of lay-off protection. Third, Germany was and is one of the major economies in the world often labeled as positive role model.

We make three contributions to the literature. First, we address the consequences of job changes. While most turnover models focus on the antecedents of turnover (for a review see Holtom, Mitchell, Lee, & Eberly, 2008), we take a look at the results of job changes in the period from 1985 to 2013. Second, and linked with the first contribution, we focus on both objective (income) and subjective (satisfaction) consequences over time and, contrary to contemporary research in which involuntary job change and VJC are often mixed (Capelli & Hamori, 2007), we will consider VJC only. Third, we address this issue longitudinally and concentrate on a specific career context (Germany) in the course of 28 years, taking advantage of data from the German Socio Economic Panel (GSOEP), a large scale representative data set for the German workforce.

To this end, the paper is structured as follows: after outlining the conceptual background we will discuss the potential change of income and rise in satisfaction over time. Then we will outline the sample and procedures, followed by the results. The paper ends with a discussion of the most relevant insights.

1.1. Conceptual background

Several variables run like threads through turnover models: affective mechanisms such as job satisfaction or commitment, intention to quit or stay, and perceptual or actual job market conditions (Steel & Lounsbury, 2009). As already proposed in a classic early turnover model (March & Simon, 1958), desirability/job satisfaction and ease of movement/alternative job opportunities are empirically confirmed as the most important triggers for turnover, with the former receiving seven times more attention than the latter (Griffeth, Hom, & Gaertner, 2000).

Much less research is designated to the consequences of turnover, be it for the organization as a whole, the individuals who left, or those who stayed after others left the organization (Mobley, 1982). A recent meta-analysis found negative consequences for firm performance (Hancock, Allen, Bosco, McDaniel, & Pierce, 2013), especially after voluntary turnover (Park & Shaw, 2013). Also those who stayed in an organization after their colleagues had been laid off or left voluntarily are affected negatively (Krackhardt & Porter, 1985; Pepper, Messinger, Weinberg, & Campbell, 2003). In the following we focus only on the individuals who left voluntarily and we examine two consequences: income gains and job satisfaction.

1.2. Outcomes of job transitions: income gains

Basically all empirical studies lead to the conclusion that voluntary job change is followed by an increase in wages. Several studies focus on the first ten career years and report wage growth after job changes e.g. in the US (Topel & Ward, 1992), the UK (Dustmann & Pereira, 2008), and Germany (Schmelzer, 2012). Others point in the same direction by showing that the effects are most pronounced for job transitions early in the career (Fuller, 2008; Lam et al., 2012). In addition, firm similarity (Sturman, Walsh, & Cheramie, 2008), the frequency of company changes (Mao, 2004; Dustmann & Meghir, 2005), gender (Brett & Stroh, 1997; Lam & Dreher, 2004), and ethnicity (Dreher & Cox, 2000) affect this relation. Contract type also seems to influence this relationship (Amuedo-Dorantes & Serrano-Padial, 2007) as does the starting point of a transition (whether one makes a direct or indirect job change via unemployment, Schmelzer, 2012).

Only a few studies have investigated changes in income gains resulting from job mobility over time and most of them have been conducted in the US. Comparing the 1980s and 1990s in the US, income gains from job changes remained stable (Gottschalk & Moffitt, 1999), but the returns of job tenure (staying in the same job) decreased (DiPrete, Goux, & Maurin, 2002). Bernhardt, Morris, Handcock, and Scott (1999) investigated wage returns to job changes in the periods 1966–1981 vs. 1979–1994 in the US and reported a decline and a higher variability in income gains for young adults. Especially those without any college experience were affected negatively, whereas young adults with higher education have maintained their wage growth following external job mobility. These studies did not distinguish between types of transitions, but Polsky (1999) found different effects for three groups: 1. stayers, 2. involuntary job movers and 3. voluntary job movers in his study, comparing the period 1976–81 with that of 1986–1991 in the US. Wages for stayers remained the same but involuntary job loss was increasingly associated with a wage cut. Voluntary job movers on the other hand experienced a mean wage growth of 7.5% to 19.3%. Most recently Kronberg investigated changes in wage increases for voluntary job leavers from the 1970s to 2009 in the US and found increasing returns for men and even more for women in "good" jobs – such that are reasonably paid, provide social insurance, etc. –

resulting in a smaller gender gap (Kronberg, 2013). Especially the college educated job changers (in contrast to the high-school educated) earn increasingly more than the stayers (Kronberg, 2014). A study investigating the first 15 career years of Austrian business school graduates found that the average wage increase following a voluntary transition turned out to be lower for the cohort of 1990 compared to the one of 1970 (Chudzikowski, 2012). Hence while empirical evidence for the increase after a voluntary job change is quite unequivocal, the answer to how increases develop over time rather remains ambiguous.

From a theoretical standpoint, three approaches explain why external job transitions lead to income gains: (1) Search and matching models (Burdett, 1978; Mihal, Sorce, & Comte, 1984) assume that when on job search, employees evaluate their current position against alternative possibilities. Additionally, the longer they stay in the labor market, the better their chances for an optimal position become. It is assumed that employed workers continue searching for jobs where they will be productive and receive higher wages. (2) Human capital theory (Becker, 1962) argues that wage gains depend on the transferability of job-specific capital, which has been accumulated with increasing tenure, and that workers are generally rewarded for staying at the same company for their increased value — this holds especially for employees to whom the company offers opportunities for promotion, long-term contracts and training possibilities as empirically shown for the UK (Leontaridi, 2002). Firms that rely on the external labor market therefore have to pay a salary premium if they want to induce job mobility. (3) Finally, social capital theory expects pay raises after external job transitions but argues that this is due to the network of relationships established with and within multiple organizations that enhances the visibility of individuals in the labor market and helps them to receive higher-status and higher-paid jobs (Seibert, Kraimer, & Liden, 2001).

Combining these theories with the major arguments of the new careers literature, suggest that the net effect of VJC has decreased between 1985 and 2013 owing to two developments: That success is evaluated in more than just financial gains and that the economic context has become rather unfavorable for a VJC.

Concerning the former, although people in the recent career landscape stay in a "perpetual search mode" (Direnzo & Greenhaus, 2011: 571), i.e., they increasingly look for other jobs while still being in the present one, they do not necessarily look for income gains only (Hall, 1996). Career capital gains, which are becoming increasingly important (Parker, Khapova, & Arthur, 2009), encompass more than mere higher economic capital returns (Iellatchitch, Mayrhofer, & Meyer, 2003) and also include, for example, better employability. Likewise, accumulated social capital not only helps to find higher-paid jobs, but also jobs that might fit the current needs of the job changer, some of them being non-monetary in essence such as, e.g., a better work–life-balance or positive work relationships. These needs are reputedly becoming more diversified and less materialistic (Inglehart, 2008). Moreover the assumption of psychological contracts being increasingly transactional rather than relational (Rousseau, 1990; Robinson, Kraatz, & Rousseau, 1994) suggests a greater readiness to leave organizations for a better deal elsewhere. This deal, as outlined above, is not only limited to financial gains, but also includes other forms of returns which makes it more likely to voluntarily leave organizations with little or no expectations of being financially better off in the next job.

Concerning the favorability of the economic context, employment contracts in Germany have become less and less covered by collective agreements and protected by works councils over the last 20 years. For example, the proportion of companies having no collective agreement and works councils has increased by at least ten percent between 1996 and 2012 (Ellguth & Kohaut, 2013). At the same Germany has experienced economic stagnation, or partly even a reduction in actual earnings, thereby being the last in the list of EU countries in terms of actual earnings development after 2000 (Brenke, 2009). Both facts should in general lead to an unfavorable income development for job changers since entry wages are sensitive to the economic situation (Martins, Solon, & Thomas, 2012).

Overall, due an increasing diversity of expectations with regard to outcomes of job changes and a decline in economic favorability of the German context, we expect less financial surplus to arise from VJC in the defined period as outlined in our first hypothesis.

H1. Income gains following a voluntary external job change have decreased in the period from 1985 to 2013 in Germany.

1.3. Outcomes of job transitions: job satisfaction

The few existing empirical studies point to a significant rise in job satisfaction for job changers whereas stayers tend to show no differences (e.g. Wright & Bonett, 1992) or a slight decline (Newton & Keenan, 1990; for an exception finding little change for both see Gupta, Jenkins, & Beehr, 1992). Particularly in the first year after changing a job the satisfaction is distinctly higher than in the last year on the previous job (Boswell, Boudreau, & Tichy, 2005). All turnover process models regard the lack of job satisfaction as a major antecedent of turnover (Steel & Lounsbury, 2009), but the converse effect of job satisfaction resulting from turnover has hardly been investigated.

As dissatisfaction is a major cause for quitting the current job, movers should experience a rise in job satisfaction on the new job. Especially at the beginning, organizations try to present themselves from their best side, and the downsides of the new job may also be less obvious, e.g. due to post-decision dissonance (Brehm, 1956). The positive aspects of the chosen job are emphasized (e.g. Vroom & Deci, 1971) and if the new situation is not as good as anticipated, positive attitudes arise as a result of dissonance reduction (Steers & Mowday, 1981). Once confronted with adverse aspects of the new job, individuals tend to downplay their importance (Ashforth, 2001).

The new career literature (Arthur & Rousseau, 1996) suggests that we should expect a less pronounced increase in job satisfaction in more recent years. We argue that this is due to two developments: (1) Job satisfaction prior to change is higher than it used to be. (2) It is more difficult nowadays to be satisfied with the choice because there are plenty of alternatives available, and this is constantly on people's minds.

As far as the first is concerned, if transitions can be made more easily as boundaries vanish, unsatisfied individuals no longer have to remain in their current job as long as they had to before. To put it the other way: boundaries owing to high unemployment rates and correspondingly few available job alternatives cause people to continue in their current job even if their job satisfaction is low (Muchinsky & Morrow, 1980; Carsten & Spector, 1987).

Additionally, the role of job satisfaction for turnover is said to change as well (Direnzo & Greenhaus, 2011). It is no longer seen as a trigger (as in traditional models: e.g. Mobley, 1977; Rhodes & Doering, 1983), but a moderator in the relation between job search and turnover (Swider, Boswell, & Zimmerman, 2011), for job search takes place quite independently of job satisfaction. More precisely, job satisfaction seems to be a predictor for turnover only in the case of "push" transitions (those who wanted to get away from their job) and not in "pull" transitions (those who were attracted to another job due to new opportunities, unexpected offers, etc.) (Semmer, Elfering, Baillod, Berset, & Beehr, 2014). As the latter form of transitions can be assumed to rise, the overall level of job satisfaction prior to a job change should be higher in more recent years. In addition Semmer et al. (2014) empirically showed that the rise in job satisfaction after a change is lower for pull transitions than for push transitions.

A proliferation of options as advocated by the new careers literature can also have negative effects on well-being, as the paradox of choice suggests (Schwartz, 2000). This arises because (1) gaining adequate information about the available options is now more difficult because there are more alternatives to evaluate; (2) people's standards for what might be acceptable rise, and the confrontation of beliefs with reality is more acute than in a situation with fewer options; (3) in a boundaryless world where options expand, individuals come to believe that any unacceptable result is their fault, because they feel they should be able to find a satisfactory one (after all there are a lot of opportunities out there). Due to the perpetual search mode and the ongoing confrontation with positive aspects of alternatives, the reduction of post-decision dissonance becomes more difficult and job satisfaction rises only slightly.

Based on an assumed higher job satisfaction prior to job change and increasingly higher challenges to evaluate one's choice as predominantly positive our second hypothesis emerges:

H2. Rises in job satisfaction after voluntary job change have decreased in the period from 1985 to 2013 in Germany.

2. Methods

2.1. Sample

Analyses are based on data from the German Socio-Economic Panel (GSOEP), 2015 release (Wagner, Frick, & Schupp, 2007) covering VJC in Germany in the period from 1985 to 2013. In the course of the reunification of Germany, sampling was extended to the East German federal states in 1990. Consisting of more than 20,000 people, the data provide information including occupational biographies, employment, earnings, and satisfaction indicators. Different parts of the GSOEP data have been used to investigate changes in career patterns (Biemann, Zacher, & Feldman, 2012) or changes in the number of transitions (Kattenbach et al., 2014). Pavlopoulos, Fouarge, Muffels, and Vermunt (2014) have looked upon financial outcomes of VJC; however they used the GSOEP data in pooled cross-sectional analyses. Changes in VJC outcomes over the years using the GSOEP data have not yet been investigated.

2.2. Operationalization of variables

Based on raw data and generated variables from the GSOEP we have created a dataset that provides information on VJC as well as individual and job characteristics. The single variables and their operationalization are presented below.

2.3. Selection criterion

Voluntary job change (VJC). The GSOEP asks for any job changes during the past year. We operationalize VJC as the self-initiated termination of the previous job and a new employment in another organization within the same panel year. We use a subjective measure to distinguish between voluntary and involuntary job transitions. A VJC is recorded if a person indicates a job change with a new 'Job After Break' or a 'Job With New Employer' and if this job change is based on 'Own Resignation' instead of 'Dismissal', 'Mutual Agreement', 'Company Closed Down' or 'Sabbatical' etc. This operationalization allows for shorter periods of unemployment (between two successive survey years). Thus, we also include employees, who quit their job before they have a new job offer or who deliberately decide to take some time off before starting with a new job. On the other hand the operationalization excludes intra-organizational job changes due to concerns about adequate measurement within the GSOEP (see Kattenbach et al., 2014).

2.4. Dependent variables

Wage change is calculated on an hourly basis using the reported gross income per month and the amount of contractual working hours. Wage changes in percent following a VJC are based on wage reports of the first year after a VJC and the previous year. To avoid outliers, wage changes deviating more than two SD from the mean are excluded.

Change in job satisfaction (ΔJS). Job satisfaction is measured on an 11-point scale twice at two successive survey dates: Within the last year in the old job (JS_0) as well as within the first year after VJC (JS_1). ΔJS indicates the difference in job satisfaction from before VJC to the first measure after VJC ($JS_1 - JS_0$).

2.5. Time variable, economic situation, matching criteria and control variables

Time in years. A time variable indicates the year of a VJC and no job transition (NJT) respectively. The actual years have been recoded towards more interpretable values. Year 1985 is coded as "1", 1986 as "2" etc.

Econ. To indicate the economic situation for job changes we have averaged two (z-transformed) indicators. These are the yearly unemployment rates published by The Research Institute of the Federal Employment Agency and the gross domestic product growth rate in real terms. The GDP from 1984 to 1991 is drawn from the Federal Ministry of Labour and Social Affairs. From 1992 on, we use data from The Federal Statistical Office and statistical offices of the federal states.

Tenure is presented as a time period in months being with an employer. With any external job transition or termination tenure is newly calculated.

Job group. Different job groups are created based on self-descriptions. These include blue collar, white collar and professional. Following Holst, Busch-Heizmann, and Wieber (2015) the professional group signifies those with a highly qualified job and/or management function.

Income group. To avoid leverage and inflation bias we use wage distribution and its tertiles to identify a low- (tertile 1), medium- (tertile 2) and high-income (tertile 3) for each year.

Work hours. Contractual work hours up to the first decimal digit are included.

VJC count. A count variable indicating the number of reported previous VJC since 1984.

2.6. Sampling and statistical matching

Initially we reduced the GSOEP database by eliminating all cases that did not belong to the group of employees. Within this group those who labeled themselves as civil servants have not been taken into account due to their special employment status. Furthermore those with limited contracts are precluded as it is difficult to distinguish between voluntary and non-voluntary turnover for them. Likewise marginal employment is not considered due to the frequent use of limited contracts and to keep (early) retirees and students with secondary employment from our sample. Marginal employment is operationalized by the legally prescribed income limit for so called Mini-jobs (e.g. 400€ per month from 2003 to 2012).The resulting database includes 124,281 observations of VJC and NJT in the years 1985 to 2013. Primarily, our analyses focus on employees with a VJC. There are N = 3634 cases of a VJC. However, to enable comparisons of the VJC outcomes with those of similar NJT employees in the same year, we use statistical matching by propensity scores (Bacher, 2002).

This procedure selects a statistical twin for each case in the VJC sample according to predefined criteria. There are two arguments for choosing this method (Rässler, 2002; Smith, 1997): First, it is obvious that the group with VJC differs systematically from the group without transition. The most evident differences between those with transition and those without exist in age and tenure. Transitions predominantly take place in early career stages when employees are younger and encounter less tenure (e.g. Ng & Feldman, 2009). Second, the comparison group is much bigger than the sample of VJC. In combination with differences in group characteristics, one can assume higher heterogeneity for the comparison group which leads to biases in multiple regression analyses. Characteristics of the comparison group would outweigh the effects related to characteristics of the group with VJC and they would dominate the effects in regression analyses.

Table 1
Statistical matching criteria and sample descriptives.

	N	M	SD	$M_{Matches}$	$SD_{Matches}$	ΔM	p
VJC							
Similarity characteristics							
Year of observation		1999.30	8.17	1999.12	7.93	-0.18	.329
White collars		0.43	0.50	0.43	0.49	-0.01	.435
Professionals		0.20	0.40	0.20	0.40	0.00	.661
Tenure		4.50	4.81	4.45	4.61	-0.05	.670
Working hours		370.69	63.43	369.68	61.10	-1.00	.492
Wage level		1.90	0.80	1.93	0.80	0.02	.236
Age		12.70	8.73	12.70	9.02	0.00	.997
Sex		0.42	0.49	0.42	0.49	0.00	.722
Other sample descriptives							
Number of previous VJC		1.69	1.01	0.47	0.84	-1.23	.000
Wage change in %		10.69	25.83	4.74	15.83	-5.95	.000
VJC count		1.70	1.02	0.47	0.84	1.23	.000
JS_0		6.52	0.04	7.40	0.03	0.83	.000
JS_1		7.48	1.94	7.09	1.97	-0.39	.000

$N_{VJC} = N_{Match} = 3634$; ΔM: deviation of the matched group's mean from M.

Table 2
Correlation matrix.

		1	2	3	4	5	6	7	8	9	10	11	12
1	Income gain	**n.a.**	.019	−.043 *	.054 **	−.019	.026	−.027	−.140 ***	−.015	−.047 **	−.056 ***	−.037 *
2	Δ JS	.064 ***	**n.a.**	−.001	.004	−.009	−.008	.010	.004	−.002	.041 *	.041 *	−.011
3	Transition year	−.058 ***	.023	**n.a.**	−.436 ***	.087 ***	.166 ***	−.041 *	.006	.139 ***	.078 ***	.213 ***	.021
4	Econ	.080 **	−.018	−.395 ***	**n.a.**	−.044 **	−.072 ***	.006	−.006	−.056 **	−.063 ***	−.122 **	−.02
5	White collar	−.005	.009	.032	−.026	**1.57**	−.430 ***	.068 ***	−.199 ***	.010	−.014	−.088 ***	.432 ***
6	Professional	.043 *	.038 *	.161 ***	−.081 ***	−.442 ***	**1.67**	−.158 ***	.486 ***	.072 ***	.025	.175 ***	−.157 ***
7	2nd wage tertile	−.095 ***	−.023	−.009	−.012	.065 ***	−.155 ***	**1.37**	−.469 ***	−.003	.032	−.019	−.028
8	3rd wage tertile	−.177 ***	.010	.012	−.013	−.187 ***	.503** ***	−.452 ***	**1.88**	.085 ***	.152 ***	.182 ***	−.245 ***
9	VJC count	−0.02	−.035 *	.153 ***	−.081 ***	.006	.035 *	.039 *	.059 ***	**1.18**	−.185 ***	.102 ***	−.008
10	Tenure	−.053 **	.042 *	.088 ***	−.028	−.010	.039 *	.031	.117 ***	−.175 ***	**1.08**	.353 ***	−.018
11	Age	−.115 ***	.029	.320 ***	−.122 ***	−.037 *	.155 ***	−.030	.206 ***	.132 ***	.303 ***	**1.19**	.003
12	Sex	.011	.005	.039 *	−.025	.454 ***	−.167 ***	−.076 ***	−.215 ***	.00	−.043 *	.00	**1.38**

N_{VJC} = 3157–3570; two-tailed significance: * p < .05, ** p < .01, *** p < .001; highest VIF-Values for predictor variables in analyses on diagonal.
Above the diagonal: correlations for the matched sample.

In order to create the matched sample we initially removed all cases with any other (non-voluntary) reported job transition to create a matched sample of NJT. Then we defined similarity characteristics to be met by the comparison group. The characteristics useful for determining matched cases include *panel year*, *white collar job*, *professional job*, *tenure*, *work hours*, *income-groups*, *age* and *sex*. For all job-related characteristics, matching is based on the panel wave previous to a reported VJC. A logistic regression analysis based on these similarity characteristics provides the propensity scores indicating the probability of a VJC. Finally, each case with VJC is referred to the statistical twin out of the group of stayers with the most similar propensity score (threshold CC = .001 for deviation in propensity scores). The matching criteria indicate a good fit since none of the controlled variables show significant differences of means between the groups with and without VJC (Table 1). In the following, we refer to the resulting dataset with its two subsamples as the merged sample, the VJC sample and the matched sample. Correlations and multicollinearity measures between the variables used in inferential statistics are presented in Table 2.

2.7. Multilevel analyses and pooled OLS regressions

Multilevel analysis (MLA) enables us to explicitly investigate changes using time and economic influence as macro variables while considering other relevant variables at an individual (micro-) level. A significant Likelihood-Ratio (*LR*) test result reveals that the multilevel level null model (grouped by years) is superior to simple OLS regression. Hence, we test whether the consideration of time and time-related changes in the economic cycle significantly contribute to explaining VJC-outcomes in terms of changes in wage and job satisfaction. Furthermore, we add individual variables and, in the case of MLA, cross-level interaction terms to the explanatory model. An LR test for MLA and an F-test for OLS are conducted to indicate whether the nested models are more appropriate than the more restricted ones (Table 3).

3. Results

On average a VJC leads to a financial benefit. Note, however, that about one third (33.6%) report a decreased or unchanged income level. The grand mean of a VJC-related wage change over the report years is 10.69%. This is a 5.95% higher increase than for the matched sample with NJC 4.74% ($N_{VJC} = 3321$; $p < .0001$). Has this financial benefit become more distinct over the years? The first hypothesis suggests a decrease in income gains after VJC in the period from 1985 to 2013.

The LR test for the VJC sample reveals that a multilevel random intercept model is more appropriate to explain variance in wage changes than the OLS regression ($\chi bar^2(1) = 7.42$; $p < .01$ and also Breusch–Pagan test $\chi bar^2(1) = 11.67$; $p < .001$). This test-result suggests that the level of income gains varies with the years. Adding time and economic situation as macro variables as well as wage, job-group, past VJC, tenure, age and sex as individual variables further improves the model fit to explain the financial outcomes of VJC. Cross-level interaction effects, however, cannot be supported from our data. The impact of the controlling variables has not changed over time. The following results (see Table 4) are therefore drawn from model 3 including the macro and micro-level (see Table 3).

The first item worthy of mention is a trend over time towards lower income gains after a VJC ($b = -.19$; $p < .01$). Besides there is a separate positive effect of the economic situation on the total amount of income gains ($b = 2.10$; $p < .01$).

The individual variables *job-group* and *wage* help to differentiate the level of income gains for various groups of employees. Professionals profit the most by far from a VJC ($b = 16.56$; $p < .001$), followed by white collar employees ($b = 5.19$; $p < .001$). A VJC seems to pay off the least for blue collars. Remarkably, our results also suggest that low-paid employees profit the most. The medium income group benefits significantly less and the high-paid employees report the least income gain ($b = -14.51$ and -24.24; $p < .001$). Younger employees report higher proportional income gains ($b = -.162$; $p < .001$) and females have an averaged 5.05% lower income gain than their male colleagues ($b = -5.05$; $p < .001$). The level of income gains is neither affected by tenure nor by the frequency of previous VJCs.

In a second analysis, we have compared VJC income gains to the income gains of NJT. The average wage growth for NJT on a yearly basis was subtracted from individual wage changes due to a VJC. The dependent variable *income gain* thus indicates the surplus benefit above the average income gain received by stayers. This alternative operationalization of income gain makes the macro effects disappear ($\chi bar^2(1) = 1.26$; $p = .13$). Thus the time-trend and the impact of the economic cycle found before are not specific to VJC but seem to have a similar effect on NJT, too.

Table 3
Model fit.

Model fitted	Income gains in %		Income gains compared to NJT		ΔJS	
	LR test ($-2\Delta LL$)		LR test & F-test		LR test & F-test	
Applied analyses	MLA		POLS		POLS	
1. MLA null model	7.42	**	1.26		.03	
2. Macro variables added	15.59	***	n.a.		n.a.	**
3. Micro variables added	*390.97*	***	*64.59*	***	3.62	***
4. cross-level interactions added	8.18		n.a.		n.a.	

*p < .05; **p < .01; ***p < .001; MLA: multi-level analysis
POLS: pooled regression, adjusted to cluster effects due to the panel design

Table 4
Best fitted model results.

Type of effect	Income gains in %			Income gains compared to NJT			ΔJS			JS before (11 pt-scale)			JS after (11 pt-scale)		
	Coeff		SE	Coeff		Robust SE	Coeff		Rob. SE	Coeff		Rob. SE	Coeff		Rob. SE
Time in years	−.19	**	.06	–			–		–	−.00		.01	–		–
Econ	2.10	***	.62	–			–		–	.17	**	.05	–		–
White collars	5.19	***	1.11	4.09	***	1.13	.21		.11	.04		.10	.24	**	.08
professionals	16.56	***	1.42	14.42	***	1.34	.34	**	.14	−.06		.13	.34	**	.10
wage tertile 2	−12.29	***	.66	−14.57	***	1.07	−.16		.11	.28	**	.09	.09		.08
wage tertile 3	−24.24	***	1.33	−24.09	***	1.33	−.23		.13	.33	**	.12	.12		.10
VJC count	.52		.48	.48		.41	−.07		.04	.08		.04	−.01		.03
Tenure	.12		.10	.13		.10	.02	*	.01	.01		.01	.02	**	.01
Age	−.16	**	.06	−.18	**	.05	.00		.01	−.02	***	.00	−.02	***	.01
Sex	−5.05	**	1.04	−5.07	***	1.01	−.11		.10	−.00		.10	−.05		.08
Const.	22.63	***		15.82	***	1.35	.76	***	.13	6.47	***	.13	7.36	***	.10

N = 3157–3536; *p < .01; **p < .001; ***p < .0001; non-standardized coefficients.

To conclude, income gains after VJC have decreased over time, supporting Hypothesis 1. Note that this is also true for the income gains of NJCs. Both are affected by the same trend towards lower income gains. Thus the gap in income gains between those with VJC and those without has remained at a stable level over the years.

In order to test our second hypothesis we investigated changes in job satisfaction after VJC. Our data support the finding that job satisfaction after a VJC rises strongly in absolute terms ($\Delta JS_{VJC} = 0.95$). Since the matched NJC group reports a decrease in job satisfaction for the same period ($\Delta JS_{NJT} = -0.26$), the relative increase is even more pronounced (Fig. 1). This is mainly due to a considerably low level of job satisfaction before a VJC ($JS_0 = 6.53$).

Testing for the impact of any macro-effects, the LR-test of the null model decidedly proposes pooled OLS regression analysis and no macro-effects. This includes time- and economic effects ($\chi bar^2(1) = .03$; p = .42). Thus contrary to our second hypothesis, we can conclude that there is no support for decreasing surpluses in job satisfaction over the years.

In order to test for other changes in job satisfaction over time, we conducted separate analyses of job satisfaction levels before and after a VJC. For JS after a VJC the consideration of the macro-level is not supported ($\chi bar^2(1) = 2.12$; p = .07). However, there is some variance at the macro-level for the level of job satisfaction prior to a VJC ($\chi bar^2(1) = 5.20$; p < .05). This is due to variations in the economic situation. In times of economic downturn employees persevere in their current job even with a low level of job satisfaction (b = .17; p < .01).

The results of pooled OLS analyses (Table 4) on the levels of job satisfaction before and after VJC reveal only two significant factors. First, the increase in post-VJC job satisfaction grows with tenure in the previous job (b = .02; p < .05) and second, being a professional promises a higher increase in job satisfaction (b = .34; p < .01). Fig. 1 illustrates the differences between the job groups. The JS_0 level before a VJC is similar for blue and white collar workers as well as for professionals. Hence, dissatisfaction preceding a VJC is independent of the type of job one has. By contrast, the strong increase after VJC is moderated by the cumulative data of the three job groups. It is most distinct for professionals, followed by white collars and last by blue collar workers.
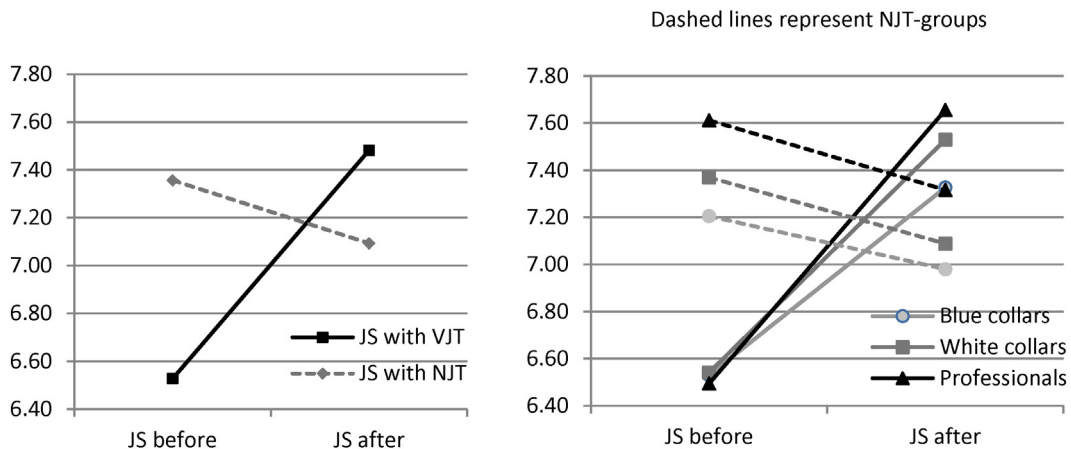

Fig. 1. Changes in job satisfaction with and without a VJC in general and for different groups of employees.

4. Discussion

Analyzing the individual consequences of VJC in Germany over the past three decades we find a decrease in income gains and no change regarding an increase in job satisfaction. With hypothesis 1 we expected a decrease in income gains for VJC over time, which is supported by the results of our analysis. However the income gains of stayers have decreased in a similar way. Thus, the financial surplus of changers compared to stayers remains stable on the average and it still pays off to change employers, albeit in relative terms only.

Wages in Germany generally tend to be more stable than in other economies through a system of collective bargaining (Hall & Soskice, 2001). Accordingly, job mobility rates and the corresponding wage returns are higher in the British labor market than in the regulated and coordinated German labor market (Pavlopoulos et al., 2014). Thus for Germany – despite less coverage by collective agreements and fewer works councils over time – there are still more boundaries and less variance for distinct changes in income gains over time than in other countries such as the UK or the US. This leads to a limited applicability of general assumptions on contemporary career research for the German labor market (for a general discussion of this, see Mayrhofer & Schneidhofer, 2009). With a robust economy during the 1980s and augmented economic concerns since the turn of the millennium (e.g., Internet bubble, high unemployment rates and economic crisis), the average percentage growth rate is declining whereas unemployment rates have increased. Since VJC are more strongly correlated to the economic situation than NJT (see Table 2), this development could have superposed other developments caused by modified career and job search patterns. If such were the case, the manifestations of new career and job search patterns connected to financial gains in Germany would be weak and negligible.

Beyond developments over time, our results also expand the results of Pavlopoulos et al. (2014), who argue that a VJC is financially favorable for the low income group whereas the high income group does not significantly benefit from a VJC. Our analyses confirm that income gains decrease for higher income groups. However, at the same time, white collars gain more from a VJC than blue collars (both as a percentage gain and compared to stayers) and professionals gain by far the most although white collars and particularly professionals have higher incomes than blue collar workers. A closer look reveals two explanations for this apparent contradiction. First, the low-income group is much younger than the high income group (Δ median age = 6 years) and (the percentage of) income gains are higher at a younger age. Second, within the high income group there are not only professionals, since they account for only about 50%. At the same time the probability for high percentage gains after job changes is strong for professionals but not for the high-income group. However, in absolute terms of gains after job change, the high income group still outperforms those with lower salaries.

Regarding the rise in job satisfaction after a VJC, we find no development over time. As has been shown by other authors, too (Semmer et al., 2014; Boswell et al., 2005), job satisfaction rises with a job change. To this existing knowledge we note the seeming stability of this phenomenon over time, mainly attributable to the low level of job satisfaction before a job change. This result either challenges the literature on the paradox of choice, or leads to the conclusion that German employees today do not encounter more options than they did before. If the latter is the case, the acquisition of information on alternative vocational options and the corresponding evaluations of acceptable progressions, together with the unease of making allegedly bad choices, may not be of importance, presumably because such a combination of factors does not occur so frequently in Germany at present.

Comparing job groups, we have shown that professionals have the same (low) job satisfaction prior to a VJC as blue and white collars do, but the rise after a VJC is much more distinct for the former. Here we may find an interplay of the highest income gains and increased job satisfaction. The results regarding the macro-economic situation point to the relevance of the ease of movement, which impacts people's decisions to change jobs. The better the economic situation is, the higher is people's job satisfaction prior to a VJC. On the other hand a lower level of job satisfaction is required to induce a job change in times of economic downturn (as indicated by e.g. Carsten & Spector, 1987).

Some limitations of the study have to be acknowledged. First, it is a single-country study focusing on the strongly regulated labor market of Germany. While this is an advantage for showing the importance of context when dealing with claims of global trends, it clearly limits generalization possibilities for other countries. Second, the study uses an existing data set with all the limitations in terms of operationalization, e.g. the measurement of job satisfaction should preferably include a multi-item-battery instead of a single-item measure. Although single-item measures show acceptable correlations with scale measures (Wanous, Reichers, & Hudy, 1997), additional information e.g. on income satisfaction could further contribute to clarifying the (antecedents and) outcomes of VJC over time. And finally, for the interpretation of percentage income gains, one should keep in mind that income gains may systematically differ for various income levels. For extraordinarily high income levels, absolute income gains may be much higher even though they reflect lower percentage gains. On the other hand percentage gains may make big jumps more easily with a very low income.

We found interesting differences for employee and income groups, age and sex. Future research should, therefore, focus on a more elaborate comparison of industry affiliation and individual characteristics to draw a more nuanced picture of developments in career patterns over time. Also, further analyses on the explanatory power of economic growth for different age groups are worth conducting.

5. Conclusion

Overall, our results suggest that much of the rhetoric on dramatic changes due to changing work, societal, and organization environments tends to be exaggerated. Our results also support prior studies (e.g. Mayrhofer, Morley, & Brewster, 2004;

Mayrhofer, Brewster, Morley, & Ledolter, 2011) which point to stasis, more than changes, as being a major factor in the developments in HRM and careers in Europe over time. For Germany it seems that beside career expectations (Kattenbach, Lücke, Schlese, & Schramm, 2011) and job transitions (Kattenbach et al., 2014), the consequences of job changes are changing at a much slower pace than could be expected by the arguments of the new career literature.

While this is an important finding for Germany as a coordinated market economy, it leaves open the question of whether economies with less regulated labor markets, i.e. liberal market economies such as the UK or Ireland and hybrid settings such as the Netherlands with its flexicurity system, show similar developments. Therefore, comparative longitudinal analyses of a similar kind are needed.

Acknowledgments

References

Amuedo-Dorantes, C., & Serrano-Padial, R. (2007). Wage growth implications of fixed-term employment: An analysis by contract duration and job mobility. *Labour Economics*, 14(5), 829–847.
Arnold, J., & Cohen, L. (2008). The psychology of careers in industrial and organizational settings: A critical but appreciative analysis. In G. Hodgkinson, & K. Ford (Eds.), *The international review of industrial and organizational psychology* (pp. 1–44). Chichester: Wiley and Sons.
Arthur, M. B., & Rousseau, D. M. (Eds.). (1996). *The boundaryless career. A new employment principle for a new organizational era*. New York: Oxford University Press.
Ashforth, B. E. (2001). *Role transitions in organizational life: An identity-based perspective*. NJ: Erlbaum: Mahwah.
Bacher, J. (2002). Statistisches Matching: Anwendungsmöglichkeiten, Ver-fahren und ihre praktische Umsetzung in SPSS. *ZA-Informationen*, 51, 38–66.
Baruch, Y. (2001). Employability: A substitute for loyalty? *Human Resource Development International*, 4(4), 543–566.
Becker, G. S. (1962). Investment in human capital: A theoretical analysis. *Journal of Political Economy*, 70(5), 9–49.
Bernhardt, A., Morris, M., Handcock, M. S., & Scott, M. A. (1999). Trends in job instability and wages for young adult man. *Journal of Labor Economics*, 17(4), S65–S90.
Biemann, T., Zacher, H., & Feldman, D. C. (2012). Career patterns: A twenty-year panel study. *Journal of Vocational Behavior*, 81(2), 159–170.
Boswell, W. R., Boudreau, J. W., & Tichy, J. (2005). The relationship between employee job change and job satisfaction: The honeymoon–hangover effect. *Journal of Applied Psychology*, 90(5), 882–892.
Brehm, J. W. (1956). Postdecision changes in the desirability of alternatives. *The Journal of Abnormal and Social Psychology*, 52(3), 384–389.
Brenke, K. (2009). Reallöhne in Deutschland über mehrere Jahre rückläufig. *Wochenbericht des DIW Berlin*, 33, 550–560.
Brett, J. M., & Stroh, L. K. (1997). Jumping ship: Who benefits from an external labor market career strategy? *Journal of Applied Psychology*, 82(3), 331–341.
Burdett, K. (1978). A theory of employee job search and quit rates. *American Economic Review*, 68(1), 212.
Capelli, P., & Hamori, M. (2007). The institutions of outside hiring. In H. P. Gunz & M. Peiperl (Eds.), *Handbook of career studies* (pp. 327–350). Thousand Oaks: Sage.
Cappelli, P. (1999). Career jobs are dead. *California Management Review*, 42(1), 146–167.
Carsten, J. M., & Spector, P. E. (1987). Unemployment, job satisfaction, and employee turnover: A meta-analytic test of the Muchinsky model. *Journal of Applied Psychology*, 72(3), 374–381.
Chudzikowski, K. (2012). Career transitions and career success in the 'new' career era. *Journal of Vocational Behavior*, 81(2), 298–306.
DeFillippi, R. J., & Arthur, M. B. (1994). The boundaryless career: A competency-based perspective. *Journal of Organizational Behaviour*, 15(4), 307–324.
DiPrete, T. A., Goux, D., & Maurin, E. (2002). Internal labor markets and earnings trajectories in the post-Fordist economy: An analysis of recent trends. *Social Science Research*, 31(2), 175–196.
Direnzo, M. S., & Greenhaus, J. H. (2011). Job search and voluntary turnover in a boundaryless world: A control theory perspective. *Academy of Management Review*, 36(3), 567–589.
Dreher, G., & Cox, T. (2000). Labor market mobility and cash compensation: the moderating effects of race and gender. *Academy of Management Journal*, 43(5), 890–900.
Dustmann, C., & Meghir, C. (2005). Wages, experience and seniority. *Review of Economic Studies*, 72(1), 77–108.
Dustmann, C., & Pereira, S. C. (2008). Wage growth and job mobility in the United Kingdom and Germany. *Industrial and Labor Relations Review*, 61(3), 374–393.
Ellguth, P., & Kohaut, S. (2013). Tarifbindung und betriebliche Interessenvertretung: Ergebnisse aus dem IAB-Betriebspanel 2012. *WSI Mitteilungen*, 4, 281–288.
Forrier, A., Verbruggen, M., & De Cuyper, N. (2015). Integrating different notions of employability in a dynamic chain: The relationship between job transitions, movement capital and perceived employability. *Journal of Vocational Behavior*, 89, 56–64.
Fuller, S. (2008). Job mobility and wage trajectories for men and women in the United States. *American Sociological Review*, 73(1), 158–183.
Gottschalk, P., & Moffitt, R. (1999). Changes in job instability and insecurity using monthly survey data. *Journal of Labor Economics*, 17(4), S91–S126.
Griffeth, R. W., Hom, P. W., & Gaertner, S. A. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, 26, 463–488.
Gupta, N., Jenkins, G. D., & Beehr, T. A. (1992). The effects of turnover on perceived job quality: Does the grass look greener? *Group & Organization Management*, 17(4), 431–445.
Hall, D. T. (1996). Protean careers of the 21st century. *Academy of Management Executive*, 10(4), 8–16.
Hall, P. A., & Soskice, D. (Eds.). (2001). *Varieties of capitalism: The institutional foundations of comparative advantage*. Oxford: Oxford University Press.
Hancock, J. I., Allen, D. G., Bosco, F. A., McDaniel, K. R., & Pierce, C. A. (2013). Meta-analytic review of employee turnover as a predictor of firm performance. *Journal of Management*, 39(3), 573–603.
Holst, E., Busch-Heizmann, A., & Wieber, A. (2015). *Führungskräfte-Monitor 2015. Update 2001–2013*. Berlin: Deutsches Institut für Wirtschaftsforschung.
Holtom, B. C., Mitchell, T. R., Lee, T. W., & Eberly, M. B. (2008). Turnover and retention research: A glance at the past, a closer review of the present, and a venture into the future. *The Academy of Management Annals*, 2(1), 231–274.
Iellatchitch, A., Mayrhofer, W., & Meyer, M. (2003). Career fields: A small step towards a grand career theory? *International Journal of Human Resource Management*, 14(5), 728–750.
Inglehart, R. F. (2008). Changing values among western publics from 1970 to 2006. *West European Politics*, 31(1–2), 130–146.
Inkson, K., Gunz, H., Ganesh, S., & Roper, J. (2012). Boundaryless careers: Bringing back boundaries. *Organization Studies*, 33(3), 323–340.
Kattenbach, R., Lücke, J., Schlese, M., & Schramm, F. (2011). Same same but different — Changing career expectations in Germany?**/Gleich und doch anders — Veränderte Karriereerwartungen in Deutschland? *Zeitschrift für Personalforschung*, 25(4), 292–312.
Kattenbach, R., Schneidhofer, T. M., Lücke, J., Latzke, M., Loacker, B., Schramm, F., & Mayrhofer, W. (2014). A quarter of a century of job transitions in Germany. *Journal of Vocational Behavior*, 84(1), 49–58.
Krackhardt, D., & Porter, L. W. (1985). When friends leave: A structural analysis of the relationship between turnover and stayers' attitudes. *Administrative Science Quarterly*, 30(2), 242–261.
Kronberg, A. -K. (2013). Stay or Leave? Externalization of job mobility and the effect on the U.S. gender earnings gap, 1979-2009. *Social Forces*, 91(4), 1117–1146.
Kronberg, A. -K. (2014). Stay or leave? Race, education, and changing returns to the external labor market strategy, 1976–2009. *Work and Occupations*, 41(3), 305–349.

Lam, S. S. K., & Dreher, G. F. (2004). Gender, extra-firm mobility, and compensation attainment in the United States and Hong Kong. *Journal of Organizational Behavior*, *25*(7), 791–805.

Lam, S. S. K., Ng, T. W. H., & Feldman, D. C. (2012). The relationship between external job mobility and salary attainment across career stages. *Journal of Vocational Behavior*, *80*(1), 129–136.

Latzke, M., Schneidhofer, T., Pernkopf, K., Rohr, C., & Mayrhofer, W. (2015). Relational career capital: Towards a sustainable perspective. In A. De Vos, & B. Van der Heijden (Eds.), *Handbook of research on sustainable careers* (pp. 50–66). Cheltenham, UK: Edward Elgar.

Leontaridi, R. M. (2002). Career, experience and returns to human capital: Is the dual labour market hypothesis relevant for the UK? *Research in Economics*, *56*(4), 399–426.

Mao, H. -Y. (2004). Voluntary employer changes and salary attainment of managers. *The International Journal of Human Resource Management*, *15*(1), 180–195.

March, J. G., & Simon, H. A. (1958). *Organizations.* New York: Wiley.

Martins, P. S., Solon, G., & Thomas, J. P. (2012). Measuring what employers do about entry wages over the business cycle: A new approach. *American Economic Journal. Macroeconomics*, *4*(4), 36–55.

Mayrhofer, W., Brewster, C., Morley, M. J., & Ledolter, J. (2011). Hearing a different drummer? Convergence of human resource management in Europe — A longitudinal analysis. *Human Resource Management Review*, *21*(1), 50–67.

Mayrhofer, W., Morley, M. J., & Brewster, C. (2004). Convergence, stasis, or divergence? In C. Brewster, & W. Mayrhofer (Eds.), *Human resource management in Europe. Evidence of convergence?* (pp. 417–436). London: Elsevier/Butterworth-Heinemann.

Mayrhofer, W., & Schneidhofer, T. M. (2009). The lay of the land: European career research and its future. *Journal of Occupational and Organizational Psychology*, *82*(4), 721–737.

Mihal, W. L., Sorce, P. A., & Comte, T. E. (1984). A process model of individual career decision making. *Academy of Management. The Academy of Management Review (pre-1986)*, *9*(000001), 95.

Mobley, W. H. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology*, *62*(2), 237–240.

Mobley, W. H. (1982). Some unanswered questions in turnover and withdrawal research. *Academy of Management Review*, *7*(1), 111–116.

Muchinsky, P. M., & Morrow, P. C. (1980). A multidisciplinary model of voluntary employee turnover. *Journal of Vocational Behavior*, *17*(3), 263–290.

Newton, T. J., & Keenan, A. (1990). Consequences of changing employers amongst young engineers. *Journal of Occupational Psychology*, *63*(2), 113–127.

Ng, T. W., & Feldman, D. (2009). Re-examining the relationship between age and voluntary turnover. *Journal of Vocational Behavior*, *74*(3), 283–294.

Park, T. -Y., & Shaw, J. D. (2013). Turnover rates and organizational performance: A meta-analysis. *Journal of Applied Psychology*, *98*(2), 268–309.

Parker, P., Khapova, S. N., & Arthur, M. B. (2009). The intelligent career framework as a basis for interdisciplinary inquiry. *Journal of Vocational Behavior*, *75*(3), 291–302.

Pavlopoulos, D., Fouarge, D., Muffels, R., & Vermunt, J. K. (2014). Who benefits from a job change. *European Societies*, *16*(2), 299–319.

Pepper, L., Messinger, M., Weinberg, J., & Campbell, R. (2003). Downsizing and health at the United States Department of Energy. *American Journal of Industrial Medicine*, *44*(5), 481–491.

Polsky, D. (1999). Changing consequences of job separation in the United States. *Industrial & Labor Relations Review*, *52*(4), 565–580.

Rässler, S. (2002). *Statistical matching: A frequentist theory, practical applications, and alternative Bayesian approaches.* New York: Springer.

Rhodes, S. R., & Doering, M. (1983). An integrated model of career change. *Academy of Management Review*, *8*(4), 631–639.

Rigotti, T., Korek, S., & Otto, K. (2014). Gains and losses related to career transitions within organisations. *Journal of Vocational Behavior*, *84*(2), 177–187.

Robinson, S. L., Kraatz, M. S., & Rousseau, D. M. (1994). Changing obligations and the psychological contract: A longitudinal study. *Academy of Management Journal*, *37*(1), 137–152.

Rodrigues, R. A., & Guest, D. E. (2010). Have careers become boundaryless? *Human Relations*, *63*(8), 1157–1175.

Rousseau, D. M. (1990). New hire perceptions of their own and their employer's obligations: A study of psychological contracts. *Journal of Organizational Behavior*, *11*(5), 389–400.

Schmelzer, P. (2012). The consequences of job mobility for future earnings in early working life in Germany—Placing indirect and direct job mobility into institutional context. *European Sociological Review*, *28*(1), 82–95.

Schwartz, B. (2000). Self determination: The tyranny of freedom. *American Psychologist*, *55*, 79–88.

Seibert, S. E., Kraimer, M. L., & Liden, R. C. (2001). A social capital theory of career success. *Academy of Management Journal*, *44*(2), 219–237.

Semmer, N. K., Elfering, A., Baillod, J., Berset, M., & Beehr, T. A. (2014). Push and pull motivations for quitting. A three-wave investigation of predictors and consequences of turnover. *Zeitschrift für Arbeits- und Organisationspsychologie*, *58*(4), 173–185.

Smith, H. L. (1997). Matching with multiple controls to estimate treatment effects in observational studies. *Sociological Methodology*, *27*, 325.

Smith, V. (2010). Review article: Enhancing employability: Human, cultural, and social capital in an era of turbulent unpredictability. *Human Relations*, *63*(2), 279–303.

Steel, R. P., & Lounsbury, J. W. (2009). Turnover process models: Review and synthesis of a conceptual literature. *Human Resource Management Review*, *19*(4), 271–282.

Steers, R. M., & Mowday, R. T. (1981). Employee turnover and postdecision accommodation processes. In L. L. Cummings, & M. Staw (Eds.), *Research in organizational behavior (vol 3)* (pp. 235–281). Greenwich, CT: JAI Press.

Sturman, M. C., Walsh, K., & Cheramie, R. A. (2008). The value of human capital specificity versus transferability. *Journal of Management*, *34*(2), 290–316.

Swider, B. W., Boswell, W. R., & Zimmerman, R. D. (2011). Examining the job search–turnover relationship: The role of embeddedness, job satisfaction, and available alternatives. *Journal of Applied Psychology*, *96*(2), 432–441.

Topel, R. H., & Ward, M. P. (1992). Job mobility and the careers of young men. *Quarterly Journal of Economics*, *107*(2), 439.

Vroom, V. H., & Deci, E. L. (1971). The stability of post-decision dissonance: A follow-up study of the job attitudes of business school graduates. *Organizational Behaviour & Human Performance*, *6*, 36–49.

Wagner, G. G., Frick, J. R., & Schupp, J. (2007). The German Socio-Economic Panel Study (SOEP) — Scope, evolution and enhancements. *Schmollers Jahrbuch*, *127*(1), 139–169.

Wanous, J. P., Reichers, A. E., & Hudy, M. J. (1997). Overall job satisfaction: How good are single-item measures? *Journal of Applied Psychology*, *82*(2), 247–252.

Wright, T. A., & Bonett, D. G. (1992). The effect of turnover on work satisfaction and mental health: Support for a situational perspective. *Journal of Organizational Behavior*, *13*(6), 603–615.