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Soziologisches Forschungsinstitut Göttingen
an der Georg-August-Universität

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Is it time for a change? A literature review on occupational mobility among older workers in Germany and the USA

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Abstract

As workers grow old, some of them realize that they no longer want to or are not able to work in their occupation until retirement. Under what circumstances do adults in their middle or late career switch occupation, and what characterizes this transition? These are the questions guiding this literature review. Occupational mobility is here understood as the change of between work in different occupational fields. In terms of income, prestige, or required education, this move can be an upward, lateral, or downward one. The review starts out with different theoretical concepts of occupation because they also shed light on possible explanations why which kind of occupational mobility occurs. As a further conceptual section explains why various aspects of its multidimensional nature, like the change of working hours between the old and the new occupations, as well as of aspects associated with precarious employment, can work as push or pull factors. The longest part of the review is dedicated to summarizing both theoretical and empirical research on a number of micro- and macro-level influences on occupational mobility: age, health, and level of education, as well as continuous training and retraining in later life, occupation-specific features, employment trajectories preceding the change of occupation, gender- and household-related aspects, ethno-racial and migration-related disadvantages. Subsections on macro-economic and political-institutional developments from the early 2000s onwards also explain why the occurrence of occupational mobility has become more likely in recent years. Much of the empirical evidence comes from the United States and Germany, which is why this review has an internationally comparative outlook to some extent. Given the lack of empirical data on occupational mobility among older German workers in the last decade, the review is rounded off by descriptive results from the representative German *Mikrozensus* on the rates of workers aged 40 and older who changed occupation from 2011 to 2012, differentiated by age, gender and level of education. The outlook summarizes major insights and remaining research gaps.

Zusammenfassung

Mit zunehmendem Alter stellt sich für so manchen die Frage, ob sie in ihrem bisherigen Beruf bis zur Verrichtung arbeiten wollen oder können. Unter welchen Umständen wechseln Individuen in ihrer mittleren und späteren Erwerbsbiografie ihren Beruf und wodurch genau zeichnen sich diese Berufswechsel aus? Dies sind die Kernfragen, die dieser Literaturbericht beantworten möchte. Berufliche Mobilität wird hier als der Wechsel des beruflichen Felds, in dem man erwerbstätig ist, verstanden. Dieser Übergang kann bezogen auf die Veränderung von Einkommen, Prestige und erforderlichem Qualifikationsniveau aufwärts, lateral oder abwärts gerichtet sein. Der Forschungsreview stellt zunächst unterschiedliche Theorien von Beruf vor, da diese auch für die Erklärung beruflicher Mobilität bedeutsam sind. Der darauffolgende Abschnitt konzeptualisiert die Multidimensionalität von Berufswechseln. Eigenschaften wie der Umfang der wöchentlichen Arbeitsstunden oder Aspekte prekärer Beschäftigung, die mit dem alten oder neuen Beruf assoziiert sind, können als Push- bzw. Pull-Faktoren fungieren. Der umfangreichste Abschnitt ist den theoretischen und empirischen Ergebnissen bisheriger Forschung zu unterschiedlichen Einflüssen auf der Mikro- und Makroebene gewidmet: Alter, Gesundheit, Bildungsniveau sowie Weiterbildung und Umschulungen im späteren Erwachsenenalter, berufsbezogene Eigen-

schaften, die dem Berufswechsel vorangegangene Erwerbsbiografie, Geschlecht und haus-
haltbezogene Faktoren, ethnische und migrationsbezogene Benachteiligungen sowie
makro-ökonomische und politisch-institutionelle Entwicklungen seit Anfang der 2000er,
welche das Auftreten von Berufswechseln befördert haben. Die meiste empirische For-
schung bezieht sich auf die Vereinigten Staaten von Amerika und auf Deutschland, wes-
halb dieser Literaturüberblick zu einem gewissen Grad international vergleichend angelegt
ist. Angesichts der gravierenden Forschungslücken zu beruflicher Mobilität unter älteren
Erwerbstätigen in der Bundesrepublik im letzten Jahrzehnt präsentiert der Review eigene,
nach Alter, Geschlecht und Bildungsniveau differenzierte Auswertungen des Mikrozensus
2012 zum Anteil von Erwerbstätigen, die im vorangegangenen Jahr ihren Beruf gewechselt
haben. Das Schlusskapitel fasst die wichtigsten Erkenntnisse und verbleibende For-
schungslücken zusammen.

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1 Introduction¹

Ms. Keer, age 50, worked as a trained nurse for many years in a hospital. As she grew more critical of Western medicine and unsatisfied with the shift work, she decided to start a training program to become an acupuncturist and now happily practices this new profession in her own office. Fifty-five-year-old Mr. Öztürk worked in a factory as a car mechanic all his life; now his back problems have deteriorated, but not to such an extent that disability pension is an option. After some months in unemployment, pressured by the unemployment office, he ends up in a lower-paid job at a call-center catering to its Turkish clients. Ms. Seliger, a newly retired former librarian, didn't work for 15 years in order to raise her children and has been separated from their father for many years. As she cannot make ends meet with her low pension, she takes on a low-part-time job in a small newspaper store, feeling embarrassed about this last step in her career.

These fictitious examples clearly contradict the idea of "Cobbler, stick to your trade!" For a long time, the social norm prevailed that people acquired some sort of occupational training and worked in this occupation until retirement or death. However, for many people, this type of life-long occupational continuity is no longer valid. Late capitalist labor markets exhibit occupational flexibility within many workers' employment careers. As I will show, occupational mobility has increased over the last few decades. This trend is now catching up with older workers, too, in the two countries this paper will put a comparative empirical focus on: Germany and the United States of America (US).

This literature review seeks to 1) systematically summarize various theoretical conceptions of the nature of occupational mobility, understood as a change of occupation, as well as the causes of such a transition in workers' employment trajectories. What different dimensions of occupation – both horizontally and vertically structured ones, objective and subjective ones – can and need to be taken into account when analyzing such a switch? How has social science explained why a change of occupation takes comes about, and why which kinds of occupation mobility take place? Second, guided by such conceptual ideas, this paper will gather empirical evidence on the occurrence of different kinds of occupational mobility and on the actual influence of individual and structural factors rendering such an occupational transition more or less likely. While the consequences of occupational mobility will not be covered systematically, occupational empirical evidence is reported as well where it seemed fit.

In "Older workers on the move: recareering in later life", the most encompassing study regarding the topic of this literature review, Johnson et al. (2009: 1) propose a very simple definition of occupational mobility, namely "a move [...] in a new occupation". The key horizontal dimension of this transition is the change of occupational fields, more broadly or more narrowly defined. In addition, occupational mobility has a vertical dimension in terms of e.g. in- or decreasing income, prestige, or level of required education. Lateral mobility implies a change of occupational fields with a similar level of gratification, prestige, or education. Ms. Keer, the nurse turned acupuncturist, could be a case in point. Occupational *upward* mobility – e.g. from a qualified blue-collar foreman to the manager of a company –

1 This working paper was made possible by a generous stipend funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) – project number 392991921 – and granted to the author for a six-month stay at the Schwartz Center for Economic Policy Analysis (SCEPA) at the New School for Social Research in New York. I am grateful for comments by Teresa Ghilarducci and Anthony Webb (SCEPA) as well as by Birgit Apitzsch (SOFI Göttingen) on earlier drafts of this paper.

is certainly desired by many. Downward mobility, like we saw with Mr. Öztürk, the trained car mechanic laboring in a low-paying call center, or Ms. Seliger, the ex-librarian doing the odd job in sales, signals “losing out”. However, as will be elaborated upon below, even downward mobility should not in all cases be equated with an involuntary one – the degree of voluntariness being another crucial dimension. In either case, occupational mobility loosens the link between first formal training acquired as young adults and the actual occupation held later. Further, occupational mobility is not an isolated event. It is embedded into a longer work biography consisting of consecutive or parallel episodes of training, employment, or other statuses like unemployment, being on sick leave, or full-time reproductive labor in one’s family. And, as we will see, the activities preceding the change of occupation can tell as something about the latter’s very nature.

There are several reasons why this literature focuses on changes of occupation rather than other transitions in people’s work history: For many decades, German unemployment rates had often been so high and above the OECD average that a lot of attention was given to shifts into and out of unemployment. Ever since the German economy has strongly and persistently recovered from the 2007/08 economic crises, employment rates have gone up. Since 2010, Germany’s unemployment rate has been below that of the G7 countries’ average and the American one, while the contrary was the case during the decades before.² This new development has shifted public attention from the employment-unemployment dichotomy to the quality of employment and related disparities. Upward and downward occupational mobility is part of the larger issue which social groups have been seeing an increase or decrease of job quality. Change of occupation often goes hand in hand with a change of employer and possibly with a change of industry sectors. The latter might be of more interest for macroeconomic changes. Changes of employment as well as of income *without* leaving one’s learned profession is indeed an important part of occupation mobility in a broad sense. Job changes within one’s occupation and changes of occupation have some dimensions in common, like a potential change of salary and of non-monetary job qualities (kind of job contract, social benefits etc.), as well as the degree of voluntariness. However, only switching occupations relates to the aspect of professional identities, which form an important part of modern individuals’ identity, as well as to the linkage between educational and occupational certificates, knowledge and competences which were acquired by the individual and are needed for a particular job. Hence, the complexity of occupational switching makes it a particularly interesting phenomenon to study.

This working paper seeks to give a summary of older and more recent social research on occupational mobility among women and men in their middle and late working careers. In this review, “older” workers are rather broadly defined as the second half of individual working careers, i.e. roughly from age 40 onwards until the final exit from the labor force, which in some cases is after the regular retirement age of 65 plus. While the phenomenon of changing occupation in this age bracket surely takes place in any industrialized country, the focus of empirical social research – that is, the publications in English or German I found – has almost exclusively been on the US, and to a lesser extent on Germany. This is why this literature review will to some extent be internationally comparative regarding these two countries.

In comparative social science research, the US stands for a residual welfare-state regime with a little-regulated liberal labor market, while Germany serves as the prototype of a conservative welfare state with a highly regulated labor market, a higher level of decom-

2 <http://stats.oecd.org/index.aspx?queryid=36324#>

modification and of redistribution than in liberal states, but with a stronger emphasis on status maintenance than in the more universalist-orientated social democratic regime type (Esping-Andersen 1990). For instance, the share of public expenses for passive and active labor market policies (e.g. state-subsidized further training) related to the gross national product is seven times higher in Germany than in the US (Ebbinghaus/Hofäcker 2013: 828, own calculation). In America, the low degree of labor-market regulation makes (older) workers face a higher risk of being laid off, but also provides more opportunities to find work again. In Germany, in contrast, *employed* older workers are protected by relatively strict labor market regulation, but once they lose their job, they join the labor-market outsiders, who find it hard to become (re-)employed. Overall, the traditionally higher employment rate in the US results in a higher *potential* for the occurrence of occupational mobility, because of the obvious logic that non-employed people cannot change occupation.

Another macro difference between the two countries pertains to the linkage between education system and the labor market. In the US, they are loosely coupled, with informal training on the job and further training across all age groups being widespread. In Germany, with its “coordinated market economy” (Hall/Soskice 2001 on the Varieties of Capitalism approach) the still very common vocational training is jointly organized by companies, the trade union, and the government of regional states, and provides highly standardized and very occupation-specific certificates. In Germany’s “strongly credentialed labor market” (DiPrete 2002: 299), mobility between companies within the occupation in which the workers were formally trained is easy, yet upward and horizontal mobility into different occupational fields or industrial sectors are said to be more restrained (Buchholz et al. 2011: 15; Sacchia et al. 2016: 11 for Switzerland, which also has a occupationally segmented labor market similar to the German one).

This “traditional” brief characterization of the two countries could lead to the premature hypothesis that the American context should be more far more prone to occupational mobility among older workers than the German one. However, as I will argue in section 5.9 and 5.10, recent social reforms and economic developments in Germany in the last 15 years have rendered the German context more similar to the American one than in previous decades.

So far, there is no German-American comparative study on occupational mobility among older workers. A few nationally comparative studies (including Germany and the US among the countries compared) have focused only on somewhat related themes. Heisig (2015) investigates the financial effects of job loss in workers’ late careers, change of income after retirement as well as the national institutional factors related to these effects. Other studies focus on retirement decisions and policies (Ebbinghaus/Hofäcker 2013; Ebbinghaus/Radl 2015) as well as on work after retirement (Scherger 2015; Lain 2015).

Several strands of research are relevant to sketch the current state of theories and of empirical research with regard to occupational mobility among older workers: There are only few studies that give direct information on the extent of intra-generational occupational (or income) mobility among older workers. But studies on occupational mobility among younger persons are more numerous and give useful insights, too – at least, in order to deduce hypotheses regarding older workers. In addition, research that studies employment both during the transitioning into retirement and beyond formal retirement age looks at causes of such (re-)employment, and the identified factors may very well be relevant for somewhat “younger older” workers as well. Studies on “inconsistency of social status” (*Statusinkonsistenz*) and on precarious employment careers also touch upon the phenomenon of employment below workers’ original level of qualification.

After this introduction, I will present and discuss different theoretical approaches to what an occupation actually is (section 2). Some of these approaches relate to social stratification and social inequality more generally – the overall point of view motivating this review. Different perspectives on occupation are not only interesting in themselves, but they introduce aspects that are important to define and explain occupational mobility in terms of changing an occupation, which section 3 focuses on. Section 4 gathers empirical evidence on the occurrence of occupational mobility. Section 5 explores theories about what might cause which kind of occupational mobility and presents the corresponding empirical evidence, as well as the remaining aspects to be explored in future research. Section 5.10 on macroeconomic factor contains a longer excursion on recent rise of older workers' employment rates, which imply a growing potential for occupational mobility to occur. In order to complement the patchy research regarding Germany, the section 6 will present my own calculations with representative data for 2012 and show the shares of workers who changed occupation within the previous year differentiated by age, gender and level of education. The last section gives a summary of this literature review.

2 Theoretical concepts of occupation

In everyday understanding, an occupation can be both the result of an individual's formal or informal training and the actual work-related activities and experience. In economic terms, an occupation is a special kind of "human capital" (Becker 2008). That means it is much more specific than general education such as knowledge of a language (generalized human capital). Yet, it is not firm-specific, because occupational training allows workers to switch companies but remain within their profession. As in the human capital approach more generally, the conceptual emphasis here is on workers' productivity. When needed for a specialized task, an applicant trained in the occupation most fit to tackle that task is expected to be more productive than a competitor from a different trade. Thus, the former will get hired and receive a respective pecuniary reward for this productivity put into practice. This understanding of occupations falls into the broader theoretical perspective with a *functional* view on education and occupational training.

The technical-function theory of education [...] rests on the premises (A) that occupational positions require particular kinds of skilled performance; and (B) that positions must be filled with persons who have either the native ability, or who have acquired the training necessary for the performance of the given occupational role. (Collins 2000 [1971]: 95)

On the opposite end of the spectrum of theoretical approaches, one finds neo-Marxist sociologists like Collins (2000 [1971]: 97-98), who criticizes a blind belief in educational credentials and the unequal gratifications that go along with them. He argues in his critique of mainstream credentialism that it is "primarily" the educational and professional credential (diploma, certificates etc.) "as a mark of group membership" that allow access to privileged occupational positions, "while technical skills are secondary considerations depending on the balance of power" (Collins 2000 [1971]: 100; 1979). Individuals who have acquired certain skills informally and master them like credential-holders remain excluded if they have not attained such formal credentials.

Other social scientists also consider the broader social embeddedness of occupations. Damelang et al. (2015: 308; own translation) regard occupations as a "long-term institutional framing of the labor market which allows both employers and employees to develop reciprocal *expectations* of one another, e.g., in terms of the occupation-specific investment in human capital." Whether somebody with a diploma of profession actually has those

skills is not taken for granted to the same degree as in the human capital approach. Institutional framing that leads to those mutual expectations can be, for instance, the state-wide standardized curricula and exams for training in a specific profession. Such curricula or licenses can be regulated by state laws or by statutes of professional self-organizations like chambers. A functional equivalent to highly standardized occupational diplomas can be professional licenses, which have become more and more numerous in the US over the years, and can be state-specific (DePasquale/Stange 2016 on e.g. nurses licensures). Hence, the “content” of an occupation, i.e. the skills and knowledge associated with it, is institutionalized to varying degrees. For example, being a specialized medical doctor requires institutionalized initial training and obligatory continuous training, even though this does not prevent numerous mistakes of doctors which put patients’ health into danger. In contrast, calling oneself a “coach” does not (yet) require firmly institutionalized rules of training, although clients may very well subjectively profit from the advice their personal coaches give them.

From the functionalist point of view, one can study the actual competencies of holders of a specific profession compared to its ideal ones of the productivity of workers with and without respective formal training. These are important issues with regard to the quality of produced goods and services which employers pay for, consumers buy, or patients receive, and the actual content of a profession is often crucial for individuals’ choice to pursue the respective training as well as for the development of professional identities on part of the subjects in their training and throughout their professional careers (Olesen 2001). Both the functionalist and the identity approach highlight a profession’s content and thus the *horizontal* distinction between different occupational, which Sacchia et al. (2016: 11) more broadly relate to the “horizontal dimension of the division of labor”.

The (primarily) horizontal dimension of occupational structure is empirically captured in categorization schemes like the 2010 Standard Occupational Classification of the United States Census Bureau (2016)³ or the occupational classification 2010 (*Klassifikation der Berufe 2010* [KldB 2010]) developed by the German Federal Agency of Labor (BA 2013). The level of differentiation starts with broad categories like “services and sales workers” or “plant and machine operators” – first digits of the International Standard Classification of Occupations (ISCO) – and can move to very specific ones on a three-digit level like “travel attendants and travel stewards” or “earthmoving and related plant operators” (ILO 2012). The different number of digits are like inner and outer concentric circles around a specific occupation with neighboring occupations in the inner circle (e.g. 2-digit level) and more loosely related occupations in the outer one (1-digit level).

Rather than focusing on the skills and the horizontal aspect of occupational differentiation, the conceptual emphasis of neo-Marxists like Collins (1979) and other sociological scholars of social inequality emphasize the vertical dimension of occupation and thus “the vertical dimension of stratification” (Sacchia et al. 2016: 11) in society at large. Following this structuralist view, Pollmann-Schult (2006: 573) reminds us that gratification in terms of salary and social benefits are dependent on the specific occupational job position rather than the individual who takes that position. Occupations, together with the respective diplomas, are understood as a means to restrict access to occupational positions that convey higher income, better working conditions and/or more social prestige than in professions open to “anyone”. In a similar vein to Collins, Bourdieu’s (1983: 126; 1977) notion of “institutionalized cultural capital”, which assumedly includes professional diplomas,

3 <https://www.bls.gov/cps/cenocc2010.htm>

refers to the institutionalized legitimacy with which educational and occupational credentials give access to and thereby limit access to well-paid work. Restricted access brings advantages to the occupational insiders in terms of better employment chances and higher (and more equal) wages, enforced by a certain degree of solidarity among these peers and potentially strengthened by unionization and collective bargaining power (DiPrete et al. 2017: 1879).⁴ The less rosy side of the coin is that insiders will try to limit potential competitors by means of formal credentials as a necessary prerequisites for outsiders to get such jobs – the mechanism Weber (1980: 23, 202) called social closure (Damelang et al. 2015: 312; Menze 2017: 85-86).

The vertical structure of occupational systems is captured in the idea and its empirical operationalization not only as an income hierarchy, but also in terms of social prestige and other hierarchical aspects which vary between professions. The Standard International Occupational Prestige Scale (SIOPS) (Treiman 1994), for instance, uses metrically scaled scores based on survey-interviewees' rating of all kinds of occupations regarding their social prestige; the scale derived from the average rating prove to be highly correlated with the socio-economic circumstances of the individuals in specific occupations (Connelly et al. 2016: 7). Furthermore, social class schemes like EGP (Erikson, Goldthorpe, and Portocarero's class categories) group occupations both according to the level of education required (e.g. semi-/unskilled versus qualified blue-collar workers) as well as to the similarities in the "'market situation' (e.g. levels of income, economic security and chances for economic advancement) and 'work situation' (e.g. authority and control)" (Connelly et al. 2016: 4-5), distinguishing for instance small proprietors/artisans versus non-manual employees versus supervisors of white-collar workers (Züll 2015: 7-8; Erikson et al. 1979).

Also going beyond the financial aspects, Brussig and Ribbat (2014: 67) emphasize even more strongly the multidimensional nature of occupations: Occupations are associated with wildly varying health risks, with the likelihood of fixed-term contracts, of self-employment, of unionization, and of cooperation with other occupations, to name some major aspects. The first two together with work for temp agencies and a predominance of only part-time positions, are part of what the literature discusses as "precarious" work or non-standard employment (Bisom-Rapp/Coiquaud 2017: 3-4; for an overview see Goebel/Kottwitz 2017: 2-3). The occupation-specific "bundle" of characteristics may vary between national contexts with different kinds of labor market regulations, vocational training systems, and industrial relations.⁵ Following up on the major role of occupations for societal structure, Groh-Samberg and Hertel (2011: 119-120) are interested in the historical development of the overall vertical and horizontal structure of occupational positions and extend Bourdieu's relational class theory: They conceive differential *intra*-generational class mobility and the systematic patterns in employment trajectories as an expression of the social change which class relations undergo over time; their empirical results will be presented in sections 4 and 5.

Given the multidimensional nature of occupations, Connelly et al. (2016: 1 with reference to Parkin 1971) summarize that social research more generally regard "occupations [as] the most powerful single indicator of levels of material reward, social standing and life chances". This is, occupations are not only situated in a hierarchical matrix of social posi-

4 The *degree* of institutionalization of the link between an occupation and its "typical" income between occupations varies. The net income of many professions in the public sector or in strongly unionized industries are highly standardized, whereas there is a larger scope for the individual negotiation of one's salary and bonuses when it comes to, for example, investment bankers.

5 To give an unusual example, movie-script writers in the US are often part of a union (the screen writers guild), while there is only little union organization in the cultural sector in Germany.

tions and are crucial for individuals' as well as their families' economic living conditions in the present.⁶ They also have longer-term consequences; these include the opportunity (or lack thereof) to accumulate savings, for the amount of statutory old-age pensions in pay-as-you go systems, and the probability of becoming chronically sick or disabled (Märtin/Zollmann 2013: 2; Coile et al. 2014: 16, 45 for a multi-country comparison), or of becoming unemployed before drawing on old-age pensions (Coile et al. 2014: 19; Kurz et al. 2013: 316).

3 Defining occupational mobility and its different dimensions

Within the context of this publication, I go along with the definition, already cited in the introduction, of occupational mobility as a change of one's former occupation (Johnson et al. 2009: 1). This means that this definition is first and foremost based on the *horizontal* dimension – changing from professional field A to B. The distance between in the new and old occupation can be greater or smaller with regard to knowledge, skills, etc. Empirical studies have to opt for a certain level of occupational differentiation (e.g. the 1-, 2- or 3-digit level in an occupational categorization scheme) in order to *define* when occupational has occurred.⁷

Other occupational aspects further qualify the nature of the switch of occupation. Now, the vertical dimension of occupational mobility and thus the issue of social inequality within the course of individuals' working lives come into place. Income is the most obvious aspect of this vertical dimension. A move between two occupations can be downward, upward, or lateral. However, occupational mobility should not automatically be equated with income mobility. For salaries may rise (or, less often, fall) without a change of workplace and when one changes the employer but remains in the same occupation. Two occupations may be very different in content, but similar in the average pay – switching between two of those would imply lateral occupational mobility without income mobility. Apart from income, other aspects of the vertical nature of occupational mobility relate to changes of social prestige as well as of the required level of education. The old and the new occupation may also differ with regard to the work contracts being tenured or short-term (as in work for a temp agency), in the degree of physical and psychological challenges, in access to employment benefits (e.g. health insurance, employer-sponsored occupational retirement plan and disability insurance, days of paid vacation and sick leave) or, finally, in degree of unionization (see Brussig/Ribbat 2014: 67).

In terms of a horizontal dimension – because advantages and disadvantages of such aspects are not obvious by themselves – a change of occupation may (but need not) go along with a switch from being salaried to self-employment or the other way around. Furthermore, change of occupation often implies a change of employer, but not necessarily (e.g., a qualified worker moves up to a management position). Finally, a change of working hours as a possible correlate of occupational mobility is another dimension the subjective evaluation of which will depend a lot on how voluntary individuals experience this transition.

From the perspective of life course research, the temporal nature and sequencing of an occupational move are further elements relevant to characterize occupational mobility:

6 For instance, only due to the increase of employment among the 65-to-75-year-old Germans, the poverty rate did *not* increase between 1994 and 2014 in this age group (Grabka/Goebel 2017: 80).

7 Whether the distance between the old and the new occupation turns out to be "large" (1-digit) or small (3-digit), can be a research question in its own right, situated on the horizontal dimension.

The distinction between direct and indirect changes has gained some scholarly attention, the latter pertaining to intervening episodes between working in the old and the new occupation (Mayer et al. 2010: 372; Hackett 2009). Typical activities or statuses in between are unemployment, unpaid caregiving work in the family, sick leave/longer illness, or (re)training and further education. While direct changes of occupation seem to imply a voluntary nature of this move, Mayer et al. (2010: 372) warn against taking indirect changes as a simple objective proxy for involuntary mobility – especially intermediary educational episodes hint at subjective motives of voluntary professional self-development. So far, no study has investigated how different aspects of the vertical and horizontal as well as the life-course dimension of occupational moves cluster together.

An overall normative evaluation of whether occupational mobility is or isn't "a good thing" highly depends on whether individuals actually experience it as chosen or as forced upon them. Hence, an ideal-typical distinction is the one between voluntary and involuntary occupational mobility (with many shades of grey in between in real life). Furthermore, even when individuals feel pushed towards a new job or regard the move as voluntary at the time, their retrospective evaluation of whether it was (dis)advantageous to them may change in the long run. Whereas upward mobility is only imaginable as a voluntary change, workers can opt for, or be pushed towards, lateral or downward mobility. While features of the vertical dimension of occupation mobility (income, prestige, education required) seem to be straightforward, workers may in fact weigh pecuniary rewards against qualitative features of the new job (Boveda/Metz 2016: 156; see also Pollmann-Schult 2006: 573, 575). Sanzenbacher et al. (2017: 3) claim that "working conditions [...] become more attractive with age, such as reduced physical demands [...] working conditions, not compensation, may trigger voluntary mobility for older workers".

Involuntary downward mobility to an occupation below one's actual level of qualification is a prominent example of what sociologists call negative "inconsistency of social status" (*Statusinkonstistenz*). Most recently, Grimm (2016) rejuvenates this concept. It was originally introduced as "status dyscrystallization" by Lenski (1956) and was quite popular in social science in the 1960s and 1970s. Status inconsistency primarily refers to a constellation in which an individual's education does not go hand-in-hand with an employment status or a level of occupational prestige and income deemed "normal" and "adequate" in a specific societal and historical context. It contradicts the meritocratic norm of congruence which is widely shared in modern-day societies and is institutionalized by many regulations (Grimm 2016: 81, 89, 92). While the lacking congruence between educational resources and economic outcome can be determined in objective terms (e.g. level of education versus social prestige of the current job), subjective reactions to it vary depending on the subjects' age, level of education, or duration of this phase of inconsistency (Grimm 2016: 81, 83-84). Overall, objective indicators and subjective evaluation of occupational mobility need not correlate—which makes such transitions more complex than other employment transitions, and thus particularly interesting to study.

The following text box summarizes the horizontal and vertical dimensions which characterize a change of occupation. It is up to empirical research to study *to what degree* a switch of occupation indeed goes hand-in-hand with a change in any of these aspects.

Summary of different dimensions of occupational mobility as a change of occupation:

Horizontal dimension:

- distance between old and new professional field
- change of industry
- change of employer
- switch to and from self-employment
- change of working hours
- direct versus indirect change of occupation, differentiated by kind of intermediate activity (e.g. unemployment, sickness, unpaid care work, education/training)

Vertical dimension:

- change of income
- change of social prestige
- change of social class
- change of further features of the job quality (e.g. length of working contract, social benefits, health risks)
- subjective evaluation 1: degree of voluntariness when switching
- subjective evaluation 2: degree of satisfaction, in retrospect, with the change

4 Empirical evidence on the occurrence of occupational mobility among (older) workers

The following paragraphs summarize insights of empirical research that directly targets the occurrence of occupational mobility among older workers as such, or at least approaches this topic somewhat indirectly. Given the way these studies present their results, some differentiation by age group or birth cohort, gender and social class is unavoidable, though the latter two aspects, as well as details on specific occupations, will be dealt with more thoroughly in section 5.

Around a decade ago, Kambourov and Iourii (2008: 44) observed a lack of research on *intragenerational* occupational mobility for the US. For Germany, Groh-Samberg and Hertel (2011: 11) similarly claim that there are far fewer studies on social mobility within individuals' life courses than on social mobility between parents and children. With the exception of the study by Johnson et al. (2009) – by now nine years old – these assessments regarding the lack of research are still valid when it comes to occupational mobility among workers aged 40 and older in both the US and Germany. With regard to the German situation, there are a number of studies on occupational mobility at the beginning of people's employment careers, i.e. within the first eight (Mayer et al. 2010) or 15 years (Manzoni et al. 2014) after their entry into the labor market. In a neighboring field, the key term is not so much occupational mobility but school-to-work transitions and the matching between education and the initial jobs (for reviews of respective research and most recent studies

on Germany see Menze 2017; for international comparisons see e.g. DiPrete et al. 2017). In the remainder of this review, I will refer to some of the theoretical arguments and empirical results regarding early working careers when they seem relevant for older workers, too.

The most important study is the one by Johnson et al. (2009), which focuses most directly on occupational mobility among older workers. Based on the biannual waves of the Health and Retirement Study (HRS), they show that of all American workers aged 51 to 55 who held a full-time position in 1992 (i.e. birth cohorts 1936 – 1941, $N = 1705$), 15.7 percent changed jobs but stayed within the same occupational field (distinguishing 17 fields) and 26.9 percent changed jobs and occupations by 2006 (Johnson et al. 2009: 26). The restriction of this analysis to workers who used to hold a full-time job (ibid: 7) excludes, however, those with more nonstandard employment. This restriction would be even more problematic for Germany, given the high percentage of part-time employment among women (Lehweß-Litzmann 2016: 12). The US study with the most recent longitudinal data, 2009 to 2015, reports downward mobility for Americans aged 55 and older, only differentiated by race and gender (Wilson/Roscigno 2018: based on the Panel Study of Income Dynamics): From managerial or professional occupations, of skilled/technical white-collar employees or blue-collar supervisors, 18 percent to 25 percent of white men, 25 to 32 percent of white women, 28 percent to 30 percent of African-American men, and 32 percent to 37 percent of African-American women experienced mobility to lower-level occupations, with managers having the lowest and blue-collar supervisors having the highest shares in each of these four social groups (Wilson/Roscigno 2018: 57). O’Rand and Hamil-Luker (2011: 297, 299, based on the HRS), responsible for the US case study within a large international comparative project by Blossfeld et al. (2011), show that the cohorts born between 1937 to 1941 experienced more downward mobility than those born from 1931 to 1936, and they did even worse as they grew older (up to 70). Among older American workers aged 51 to 61 in 1992 who took up bridge employment (i.e. a job between their old career job and the eventual overall exit from the labor force), “nearly half of the men and 40 percent of women changed (2-digit) occupations, with more workers moving down the occupational scale than up” (Quinn/Cahill 2015: 15). For the period between the 1960s and the late 1990s, Kambourov and Manovskii (2008: 53) also found downward mobility became more common for the general population. Up to the 1980s, when the American and (West-) German welfare states were still ideal-typical representatives of the liberal and conservative regime types, occupational downward mobility after the first job – in terms of the broad categories of higher and lower manual and non-manual occupations – is about twice to five times as high in the US than it is in Germany (10 to 32 percentage points difference), while upward mobility in the US is only somewhat higher (2 to 16 percentage points difference), depending on the level of the first occupation (DiPrete 2002: 282; own calculation).

With regard to job mobility more generally, Sanzenbacher et al. (2017: 1, based on the Current Population Survey) find for the years 1983 – 2014 that change of employment among late-career workers increased steadily from the 1980s through the mid-2000s, before declining somewhat in recent years, with most job changes taking place before the Great Recession. Based on the results by Johnson et al. (2009) cited above, more than half of all job changes could have involved a change of occupation, but we do not know the exact share. According to Sanzenbacher et al. (2017: 15) roughly half of the job changers studied were forced to leave their previous job.

For Germany, there is so far no study on occupational mobility that focuses on older workers in particular. Based on the pooled waves 1984 to 2009 of the Socio-Economic Panel Study (SOEP), Groh-Samberg and Hertel (2011: 121) study occupational mobility

among West German men and women aged between 25 and 54 within a 15-year time window. The oldest age group studied, the 40-to-54-year-olds, is the most relevant for this review's focus on "older" workers. Among these, men in the higher service classes did not witness any downward mobility and there was some upward mobility from the lower to the high service class (ibid: 131-134). In contrast, a substantial minority of qualified blue-collar workers experienced downward mobility to unqualified jobs (often with transitional unemployment in between) correlated with sinking hourly wages; unqualified workers most often transitioned into precarious marginal part-time jobs (*geringfügige Beschäftigung*), into unemployment, or into non-employment. (I cannot refer to actual shares of upwardly or downwardly mobile workers, as no such simple measure is given in the graphs or tables). As the authors pooled various birth-cohorts, immediate extrapolation regarding today's older workers is not advisable. Yet, a differentiation by social class or a similar indicator of social inequality, as well as by gender, is surely necessary to capture systematic bifurcations within any age groups and birth cohorts (see chapter 5 on influences). Based on the 2014-wave the Sample of Integrated Labour Market [SIAB], derived from register data of the German unemployment insurance, Lehweß-Litzmann (2016: 16, 22) shows that 49- to 64-year-olds held on average 1.4 jobs within the last five years – so changes of employer *did* occur in that age group. But we do not know to what extent they went hand-in-hand with changing occupation.

Regarding the first years in Germans' working lives (until the 30s at most), research covering the historical period up to the early 2000s is inconsistent regarding an overall trend of increased mobility. Based on German longitudinal life-course data, Mayer et al. (2010: 378-381) studied occupational mobility which took place within the first eight years after the beginning the first employment across birth cohorts 1928 to 1971. They detect no birth-cohort effects regarding direct changes of occupation, but they do find an increase of indirect changes among the younger cohorts. In addition, Seibert (2007) shows for transitions from vocational training to the first job that changes of occupation which led to unqualified work became more frequent between 1977 and 2004. Leaving the vertical dimensions aside, an impressive share of 76 percent among younger German workers changed their occupation at least once within a time window of nine years following their labor market entry (Damelang et al. 2015: 321, based SIAB data). Using the same data as Mayer et al. (2010), Manzoni et al. (2014) consider the first 15 years after entering the labor market, and prove with growth curve analyses that German "men and women in the younger cohorts [compared to older cohorts; J.S.] generally begin their careers in higher-status occupations, but do not experience much advancement after that" (ibid: 1296, 1305 with respect to multivariate results). However, somewhat more critically, other results show that the "slower average advancement of women suggests more downward shifts for women compared to men" (Manzoni et al. 2014: 1299). This gender-specific result mirrors Mayer's (1991: 87) much earlier finding for West German women of older birth cohorts (1929 – 1951): Within their employment careers until age 30, 40, and 50 respectively, those who began their employment careers as qualified blue-collar workers or routine service workers increasingly had to put up with high risks of at least temporary occupational downward mobility. Even though the overall educational level increased across birth cohorts, the chance of intra-generational upward mobility into the upper service class decreased among West German women (while West German men of these birth cohorts had a high likelihood of occupational upward mobility in the respective age brackets). Also, according to Pollmann-Schult (2006: 587, based on SOEP-waves 1984 to 2003), downward mobility become more common across all age groups in the years 1999 to 2003 compared to years before. Also, Diewald and Sill (2004) show that from the late 1990s onwards *inner-firm*

upward mobility declined. Nevertheless, the longitudinal data used in studies on Germany seldom go beyond the early 2000s, and thus do not cover the historical period after major neoliberal reforms (see below). Further, analysis of occupational mobility that takes place in middle and late careers are almost entirely lacking.

A few studies focus on *income* mobility among older workers. This is not identical to occupational mobility in terms of changing occupation, but a decrease of income could very well include such a change (while an increase of salary is a regular feature of a promotion within the same occupation). Rutledge et al. (2015: 18, based on the Current Population Survey) report that compared to younger American workers, for whom a job change often leads to a raise in income, newly hired male workers aged 60 to 64 and women aged 55 onwards tended to earn less than in previous jobs, with little-educated women aged 60 and above facing the highest decrease in salary. Among Americans who became unemployed during the Great Recession and were later reemployed, workers in their 50s witnessed the largest decline in hourly wages, -21 percent versus -12 percent on average (Johnson/Butrica 2012: 6), which was probably partly due to switching to less prestigious occupations.

In Germany, income mobility in general becomes less likely with rising age, according to Pollmann-Schult (2006: 586). Lehwess-Litzmann (2016: 16, 22) reports that an increase of salary happened twice as often as a decrease among older workers (unlike among their American peers) within a five-year-period ending in 2014 (which is the time of a robust recovery after the financial crisis of 2008 and 2009). This favorable relation was, however, less pronounced among women. Downward income mobility among older workers is most pronounced among qualified and non-qualified blue-collar workers; the higher service class faces the smallest risk (Jabsen/Buchholz 2009: Table 4, based on the SOEP; similar to Groh-Samberg/Hertel 2011: 131-134, with similar results on social-class mobility among 40-to-54-year-old Germans).

As to other vertical and horizontal dimensions of the occupational change, about a third of older Americans who were occupationally mobile moved from full-time to part time (less than 35 hours), and nearly half enjoyed flexible work arrangements in the new jobs (Johnson et al. 2009: 19). 37 percent reported an improvement in the new job with regard to stressful work conditions and 18 percent said they enjoyed work more in the new than in the old job. Yet, Johnson et al. (2009: 44) do not differentiate these results by the vertical dimension of occupational mobility. Among older US workers who voluntarily changed jobs (not necessarily occupation), many entered in less stressful and less physically demanding jobs; yet only 35 percent gained in income, while 45 percent lost (Sanzenbacher et al. 2017: 9). In a similar fashion, Pollman-Schult's (2006: 538) analysis shows that, among younger Germans who had voluntarily switched occupation, downwardly mobile workers more often reported an improvement of their working conditions in terms of work strain, commuting distance, and regulation of working hours compared to the upwardly mobile peers. Hence, as argued above, objective indicators like a decrease of hourly wage do not necessarily capture the subjects' own evaluation. Mayer et al. (2010: 394) used cross-sectional survey data from 2005 which included interviewees' retrospective evaluation whether they had experienced occupational change in the past and whether this was a desired move; they found no evidence of an increase of undesired occupational mobility across birth cohorts. Rather, pertaining to West German men at least, the likelihood of having experienced an undesired change of occupation only increased with the duration of employment. However, interviewees were not asked at which age such a transition took place.

All in all, there is a lack of empirical studies on the occurrence of occupational mobility among older workers both in Germany and in the US particularly within the *last decade*.

5 Explaining occupational mobility

Even though there are still many gaps in knowledge, the data presented above no doubt shows that changes of occupation do take place among workers in their middle and late careers. What theoretical explanations has social research given so far for the occurrence and the kind of occupational mobility? And to what extent have they been corroborated by empirical evidence? The following section moves from individual-level to macro-level factors and starts out with age as a major influence for the occurrence, and age-specific reasons for it. Moving along different stages in individual biographies, the review continues with the role that level of education plays in occupational mobility. The next very important focus is on various vertical and horizontal features of the old and new occupation, which function as pull and push factors. Analyses of the indirect role of gender as well as ethnic and migration-related aspects finish off the exploration of factors that vary by individual. The remaining sections deal with macro-economic and institutional developments which could render occupational mobility a more frequent transition in older workers' employment trajectories.

5.1 Age

There are good rational-choice arguments why a change of occupation should be the exception rather than the rule in individual work histories: As getting a formal education involves investment of time, effort, and – direct or at least indirect – costs, working in the respective occupation as long as possible means reaping the harvest of that investment (Mayer et al. 2010: 371). Furthermore, the longer the working experience in an occupation, the more your occupation-specific human capital grows and – according to the standard seniority principle – your salary should increase, or at least remain stable rather than decline. Also, provided that working conditions are not *too* undesirable, many people develop a professional identity – an “ongoing production of subjectivity” (Olesen 2001: 295) – and they remain attached to it. Detaching oneself from such an identification and professionally “re-inventing” oneself requires serious reasons, and successfully changing one's occupational mentality is not attainable for everybody. Furthermore, in contrast to a line of public discourse that claims a huge increase of de-standardization and of flexibilization in post-Fordist employment, empirical research is far more cautious and stresses that occupational continuity is still the majority norm, as the last chapter has shown (for a short summary of such debates and research see Mayer et al. 2010: 371-372; 374).

When a change in occupation takes place, there are a number of reasons why it should occur earlier rather than later in individuals' careers, as Manzioni et al. (2014: 1287) summarize:

First, initial job-worker mismatches decline as workers and employers gain experience with each other (Sørensen 1975, 1977). Second, the marginal value of work experience—which is an additional source of human capital—is concave (Mincer 1974). Third, internal labor markets (Sørensen 2000) can promote investment in younger workers, as the returns to these investments can be reaped over a longer time period (Becker 1964). Finally, fixed-term employment contracts are heavily concentrated among younger workers.

However, changes of occupation after having reached “occupational maturity” do happen from the 30s onward, and this is what needs to be explained in the following. There are indeed reasons that make a change of occupation more likely in advanced employment careers rather than upon entering the labor market:

With respect to *upward* mobility, and in contrast to the “investing into younger workers” argument referred to in the citation above, the necessity to accumulate enough work experience, as well as the cultural norm of seniority, could make the way up to management positions only feasible in the 40s or 50s, or at least more likely than in younger ages. According to Sicherman and Galor (1990: 188), longer tenure made occupational upward mobility *within* a firm (not studied by any other study cited here) more likely.

Regarding *lateral* occupational mobility (rather than to outright downward or upward transitions) and voluntary re-careering, it could simply take (life) time and thus become more common in higher ages until some people grow “tired” of their previous occupational activity and think it is time to try out something new. This priority of self-fulfillment has been witnessed in studies on bridge employment for a privileged minority of older workers: Boveda and Metz (2016: 157-158) identify a small group of Americans with an “encore career [...] characterized by purpose, passion, and meaningful contribution [...] to reenter the workforce, in some cases after additional education and training”, a career which healthy men with above-average assets were most likely to pursue (Boveda/Metz 2016: 161; Hofäcker/Naumann 2015: 474 on Germany with reference to “silver workers’ literature”).

As to age and downward mobility, sections 5.9. and 5.10. will discuss why macro-economic and political-institutional changes in the last dozen years or so could have increased older workers’ risk of moving down the occupational ladder compared to previous decades. In addition, an age effect could be mediated by health-related problems, to which the following section turns now.

5.2 Health

Occupational mobility can be induced by health problems, which become more common with age. In exceptional cases, young workers might quickly find out that they are physically not fit for the occupation they originally aimed at, e.g., when it turns out that they are allergic to material they would have to work with on a regular basis. However, the more common phenomenon is that it takes longer work experience until one’s profession by and by reveals a detrimental impact on physical and/or mental health. After all, around 90 percent of first-time recipients of statutory disability insurance are older than age 40 (Söhn/Mika 2017: 11). And it is not only workers in physically demanding jobs at risk. Psychological illnesses have been on the rise for several years now (for Germany Söhn/Mika 2015: 467; for the US see Twenge 2015) and even a high level of education no longer serves as a protective factor when it comes to psychological rather than physical impairments (Söhn/Mika 2017: 32-33). When workers’ health has not deteriorated so much as to have to stop working for good, and if they notice the health risks early enough, there is the potential option of horizontal occupational mobility into a different occupation. If health has already deteriorated a lot, they have to reduce working hours, which in turn may lead to downward mobility (or eventually to a full exit from the workforce).

So far, only Johnson et al. (2009: 39) could show that moving from the old job due to health problems (or in order to retire) made a move to a different occupation somewhat more likely than other reasons to leave. However, they do not study the vertical direction of that move. Also, the length of the time between the end of that old job and the beginning of the new one was not controlled for, and we do not know what happened in between the intermediary years. Future empirical studies should explore which of these alternatives are typical for which kind of workers, and which role particular health problems play.

5.3 Level of education

Shifting focus from individuals' health problems to their resources, the level of education is a candidate for influencing the likelihood of occupational mobility in later life, as well as its vertical direction. Generally, university education instills more generalized human capital and is used in a wider spectrum of occupations and firms than non-academic vocational training (see Rutledge et al. 2015: 14). This means that academically trained workers could be more flexible and abler to excel in different occupational fields. Their intellectual capacity to think more abstractly rather than being an expert in occupation-specific technical details may make them more apt to do so. Workers without any occupational training have no institutionalized cultural capital to "lose" and thus may seek and find whatever low-paid occupation there is available (e.g. switching from a cleaning job to distributing advertising brochures). With regard to the vertical direction of occupational mobility, Manzoni et al. (2014: 1290) formulate the hypothesis that "those with the lowest qualifications are often sorted into low-skilled occupations with limited chances for improvement. On the other hand, ceiling effects may constrain the chances of further career advancement of highly educated individuals, who are more likely to begin their careers at the top of the occupational hierarchy." Future studies on the impact of educational level for occupational mobility among older workers should distinguish its effects on the vertical and on the horizontal dimension of it.

In accordance with such theoretical expectations, the American study of Johnson et al. (2009: 36, 3) shows a U-shaped relationship between level of education and the likelihood to experience occupational mobility, with unqualified workers and academically trained workers being occupationally more mobile than those with a mid-level qualification. Especially post-college education is a statistically significant protection from downward mobility from managerial and skilled/technical positions) but not from professional occupations and blue-collar supervisory positions), as Wilson and Roscigno (2018: 59, 61) show for Americans aged 55 and older. However, regarding change of occupation, Rutledge et al. (2015: 14) and Kamborouf and Manovskii (2008: 58) do not find a significant effect of education among American workers aged 40 to 64 and 47 to 61 years old, respectively. Using retrospective data of the Swiss Life History study, Sacchia et al. (2016: 16) show for workers aged 28 to 30 and 38 to 40 in 1989, that compared to those with vocational training, the workers with post-secondary levels of education had a higher chance of upward mobility, and were also more protected against moving to an occupation with lower prestige than their previous one. In contrast to bivariate results, the multivariate ones showed that Swiss with no vocational training have significantly lower opportunities to experience an upward move.

With respect to occupational mobility in Germany, there is only evidence on the role of education for early employment careers. Damelang et al. (2015: 325) find the same U-shape as Johnson et al. Taking into account the interaction between education and gender – and thus gender segregation with regard to the specific field of occupational training – young men with the lowest type of German school diploma (*Hauptschulabschluss*) and women without any occupational training face a high risk of occupational downward mobility (Mayer et al. 2010: 384-385). Jabsen and Buchholz (2009: Tables 4 and 5) finds in addition that academically trained older workers of the birth cohorts 1946 to 1951 have less of an advantage regarding *income* upward mobility when compared to peers of older birth cohorts.

5.4 Occupation-related further training and re-training

So far, education has been implicitly conceived of as the kind acquired before the first entry on the labor market. However, referring to the norm of “lifelong learning”, this need not be the case. Occupation-related training could be a vehicle for change to a higher-ranked position in one’s professional field, or to change it altogether. In their international comparison of “late working life”, Buchholz et al. (2011: 12) underline the importance of institutions which give individuals the “chance of adapting to new qualification [...] in rapidly changing economies.” Referring to the possibility of voluntary indirect occupational mobility, Mayer et al. (2010: 372) stress that occupational reorientation may be triggered by the individual’s desire of professional self-fulfillment and participation in occupational re-training. Further education can be a voluntarily chosen stepping stone between leaving the old occupation and entering the new one. Even though attending additional full-time educational programs is certainly more the domain of people in their 20s and 30s, the widespread norm to keep on learning at later ages, and the ideal of working in a professional field that one really appreciates, will be guiding for at least some older individuals as well. However, continuous training relating to the current job might actually prevent workers from changing occupation, because such a training could make the worker more fit for and attached to the current occupation.

In their research review on bridge employment in the US, Boveda and Metz (2016: 157) mention “additional education and training” with regard to a socio-economically privileged minority who successfully change careers in a new occupational field. Yet the authors do not give details on its occurrence and effects. The investigation by Sacchia et al. (2016: 16) on Swiss workers in their 20s and 30s is the only micro-level study which treats further education as a predictor of occupational mobility. Here, the occurrence of further education (as a simple dichotomous variable) renders both upward and lateral occupational mobility more likely. As to Germany, Mayer et al. (2010: 387) found for early careers that among the 1955 and 1960 birth cohorts a larger share (ca. 60 percent and 50 percent respectively) went to occupational training between changing occupation compared to older or younger ones. However, it would be too speculative to extrapolate from this result how common intermediary education might be in older ages nowadays.

There are some statistical insights into older workers’ involvement in further education as such: In line with the emphasis on individual responsibility for lifelong learning in a liberal welfare state, 55- to 64-year-old Americans show the highest participation rate in formal and/or non-formal education (only on par with Sweden) and the smallest relative disadvantage compared to younger age groups (OECD 2014: online table C6-2b(L) (Web)). According to OECD-data, 55- to 64-year-old Germans show a lower participation rate in absolute terms, as well as a higher relative disadvantage compared to younger age groups. But participation in employment-related further education among this age group rose by one quarter from 2007 to 2012 (Autorengruppe Bildungsberichterstattung 2016: online table G1-1A). Hence, further education as a potential enhancer of upward or lateral occupational mobility might have become more important in recent years; its actual effect remains to be investigated.

5.5 Occupation-specific features of the old and new job

In studies on early careers, the occupation *trained* for as a young adult serves as the basis for measuring occupational continuity or discontinuity (i.e. in comparison to the occupation of the actual first job). In investigations of occupational mobility in the second half of employment careers, however, the “old” occupation of the occupationally mobile *may*

have already diverged from the one the person was originally trained for in her/his teens or 20s.

Occupational mobility is an inherently relational subject. Studying from which occupations workers depart (the “old” job) and which ones they enter (the “new” job) is not just a matter of simple description. Rather, features of the old job may act as causal “push factors” towards occupational mobility. Characteristics of the new job may function as “pull factors” why an individual (has to) consider a new occupation, why others rarely exit their occupation, and why certain occupations are seldom the destination of the occupationally mobile. Hence, describing in detail the multidimensional traits of old and new jobs are already part of an explanation of why the phenomenon of occupational mobility actually occurs. This is not only relevant with regard to the acquired and required skills of specific occupations, but also with regard to the bundle of features typically associated with employment in a particular occupation.

While the level of formal education and further training dealt with in the previous section are surely important for occupational mobility, more fine-grained differentiation is called for: Just by comparing specific university diplomas like that for medical doctors and an M.A. in Liberal Arts, it becomes obvious that a simple distinction between academic and vocational training is insufficient. DiPrete et al. (2017: 1871) argue that the linkage between a specific educational certificate within a specific occupational field on the one hand and the actual occupation held in the labor market can vary in strength depending on the specific occupational features (and the strength of that particular linkage can vary between countries). This linkage is relevant both upon entry into the labor market and in the course of a working career (ibid: 1879). DiPrete et al. (2017: 1879) propose how the linkage between education and employment can influence career mobility:

Those with a credential from a strongly linked educational program may have less mobility over their career, given their specific degree and specific skill set. Furthermore, one might expect that the strength of linkages varies over the career and that the pattern of variation differs by country. ... Part of the variation may arise from institutional flexibility or barriers to occupational mobility that would affect the relationship between years of labor force experience and the structure of linkage.

In line with the functionalist view on education, the strictness of the linkage most obviously depends on the specificity of the occupational training and of the skills needed. A medical lab that produces dentures simply needs a technician trained for this task in particular, while good journalists have a broad spectrum of education. Hence, Menze (2017: 87) reminds us that some kinds of occupational training cover a wider spectrum of knowledge and skills than others (e.g., industrial versus commercial trade). Correspondingly, graduates are employable in a wider or more narrow range of concrete occupations in the labor market. Compared to workers with a broader skill spectrum, those with very specialized skills are probably not as prone to changing to an occupation in which they cannot apply the expertise they were trained for, as they would lose the financial gratification for their expert skills.

In addition to and complementary to this functional “technology argument”, there are social factors to be taken into account. The varying degree of strictness in access to occupations, i.e., the *degree* of occupational closure, is influential for occupational mobility as well. DiPrete et al. (2017: 1902) prove that there is particularly tight education-occupation linkage for “engineering, physical science, computer science, or education” on the upper tertiary level (master degrees and higher) in Germany, France, and in the US. In Germany,

with its large subsystem of firm- and school-based apprenticeships (categorized as upper secondary education by international standards, i.e., the level 3B on the ISCED scale), the highly standardized and regulated certificates function as a mechanism of social closure with regard to the occupations concerned. In other countries, professional licenses are a more frequent mechanism of control of access. The probability of moving out of occupations with a high degree of social closure and with the corresponding privileges should be minor, and moving into such closed professions without fulfilling the respective conditions is next to impossible.

Any of the features typical for nonstandard or precarious employment (marginal part-time, fixed-term contracts, health risks etc.) may serve as a push factor. In turn, the lack of such features in the occupation aimed at may function as a pull factor. However, the very same characteristics of less privileged occupations will make them structurally more open and attainable to newcomers and hence render them a more likely aim when it comes to involuntary downward mobility.

As to the actual occupational fields from which and to which older workers switch, Johnson et al. (2009: 45) show that among Americans who changed jobs between 1992 and 2006 only half stayed within their broadly defined professional field (62 percent among males, 55 percent among females). Women in services (69 percent) display the highest rates of continuity, managers of both genders (40 percent) and female operators (38 percent) the lowest ones (Johnson et al. 2009: 42). A substantial share of former professionals moved up to a management position (18 percent among males, 16 percent among females). Among women who used to work in sales, clerical jobs or as operators, 21 percent, 12 percent and 29 percent respectively moved to service jobs. Results regarding the change of the occupation's social prestige indicate that 27 percent saw no change between the old and new job, 30 percent experienced upward and 42 percent downward mobility (Johnson et al. 2009: 45). For the American working population in general, Kambourov and Manovskii (2008: 53) show with the Panel Study of Income Dynamics that switching between occupations most often takes place between 3-digit occupations, and least between the broad occupational fields on the 1-digit level (for similar results regarding Switzerland see Sacchia et al. 2016: 11). With respect to investment in human capital, this preference for more neighboring occupations is very plausible.

For Germany, Brüssig and Ribbat (2014: 9, 13) find indications that older workers (birth cohorts 1941 and 1945) in construction and in unqualified blue-collar jobs move to low-qualified routine service jobs like catering. However, this analysis of different birth cohorts and age groups is based on pooled waves of cross-sectional data from the German *Mikrozensus* (1 percent of German households). Hence, longitudinal micro-level data is needed in order to properly test these preliminary results. In a study focusing on selected physically demanding occupations in which only a few workers are able to work until regular retirement age, Bromberg et al. (2012: 6) report that within the group aged 45 years and older, 6.6 percent of concrete builders, 5.3 percent of masons, 4.7 percent of roofers, and 3 percent of carpenters switched to a different occupation from 2008 to 2009 alone (with younger age groups showing even higher rates). Twenty-nine percent of these occupationally mobile workers stayed within the construction industry, and 22 percent moved on to other manual crafts in the industrial sector, while 48 percent changed to service jobs, especially to the field of facility management, which often comes down to downward mobility (ibid: 7-8). Among Swiss workers in their 20s and 30s, those employed in occupations of the high service class have the best chances to move even higher up, while those in teaching, social, and counselling occupations are most likely to be laterally mobile; workers in agricultural, textile, restaurant/housekeeping occupations, and cleaning/personal hy-

giene occupations have the highest risk of changing to a less prestigious occupation (Sacchia et al. 2016: 16).

Relating to the theoretical considerations of occupations' specificity and degree of closure, Menze (2017: 99-100) uses retrospective life course data of the German National Educational Panel Study to show for that in the early careers of adults, the more specialized the occupation trained for was, the less likely was a change of occupation within 13 months of graduating from vocational training. This supports the functional view on education in a national context where this kind of specialized training is strongly institutionalized in nationwide curricula. Also pertaining to young German workers, a high degree of occupational closure (restricted access dependent on highly standardized educational certificates) makes a change of occupation less likely (Damelang et al. 2015: 325) – supporting the “education as social membership” view put forth by Collins (2000 [1971]). Over the life course, however, the strength of the linkage between highly specialized occupational training and employment in the corresponding occupation may weaken, and some workers may want to, or have to, opt out of occupations with strong occupational closure. Future empirical analysis should investigate to what extent occupations with a high degree of specialization or social closure become less binding as workers grow older.

In terms of keeping the financial advantage of the current job, employees in full-time positions are less likely to switch occupation than those working part-time (Damelang et al. 2015: 325; Kambourov/Manovskii 2008: 65). In addition to the financial dimension of vertical mobility, gaining access to employer-sponsored health plans is a major motive to take on bridge employment in the US (Cahill et al. 2015: 396). This pull factor also shortens the time between displacement and re-employment among older workers in the US (Lippmann/Brown 2016: 582) and makes them retire later (Sanzenbacher et al. 2017: 11). In addition, *not* having retiree health insurance or a defined-benefit pension plan is associated with voluntary and involuntary change of job (ibid: 7). But these latter three studies did not look at changes of profession in particular. In Germany, in contrast, seeking a job with health insurance is not an issue in labor market research because, with the exception of a few self-employed persons with low income, everybody has health insurance (through employment, or when receiving a statutory pension, unemployment benefits or social welfare, or by the spouse's health insurance).

As to other characteristics of the new occupation that workers transition into, the distinction of self-employment compared to salaried employment plays a distinctive role. More generally, older workers have a higher chance of re-entering the labor force after a spell of unemployment when becoming self-employed (Jabsen/Buchholz 2009), avoiding ageism on part of potential employers. 22.3 percent of occupationally mobile older Americans changed from being salaried to self-employment (Johnson et al. 2009: 44). Those already self-employed exhibit an less-than-average risk of changing profession (Sacchia et al. 2016: 16).

Apart from those objective aspects of occupation, the degree of personal identification with an occupation is a likely candidate for predicting efforts to stay or leave, yet the quantitative evidence is scarce in this respect (Beehr/Bennett 2014: 10). A qualitative study on highly educated older re-careerers identifies, among other things, a strong orientation towards work (rather than retirement) and towards continuous change and learning; a pleasant integrative atmosphere at the new workplace made the moves satisfactory (Rice 2015: 20-23). In Grimm's qualitative panel study (2016: 160, 203-204, 259, 307-308), the German interviewees, many of them after solid employment careers, experienced several years of drifting between unemployment and precarious work that did not match their

occupational qualifications. The study underscores that the subjective reaction of individuals to the stress of occupational downward mobility varies substantially, ranging from strong efforts to overcome this status inconsistency by finding employment that matches their qualification or their previous employment status to resignation and internalized guilt. Again, others externalize this stress and become aggressive or, more lightheartedly, take it only for a “transitional” stage.

5.6 Preceding employment career

Beyond occupation-related arguments, other aspects of individual employment trajectories need to be taken into account when theorizing occupational mobility – especially the employment status or – more generally – social activity preceding the beginning of a new occupation. A direct switch from work in the old occupation to one in the new profession implies a successful transition as planned by the individual worker. In a phase of non-employment, the *pressure* to make more radical employment-related changes, like changing to a different profession and/or to accepting lower pay, is clearly higher than from the more secure position of being employed (Damelang et al. 2015: 325). Yet, from the theoretical perspective of life course research, which considers the interlinkage of different spheres of life, it is important to stress that a change of occupation is only one of several alternatives how workers may react to the pressure that unemployment exerts on them (Mayer et al. 2010: 371). Long-term unemployment or – if possible – early retirement, going back to school or “resorting” to unpaid care work in one’s family (looking after one’s children, grandchildren, or sick older parents) are possible other reactions to losing employment (and may be combined with each other). In terms of indirect occupational mobility, these “alternatives” just mentioned can turn out to be temporary ones until a switch to a new occupation eventually takes place.

Previous episodes of unemployment, further training, or unpaid care labor between a change of occupations are indeed frequent, as Damelang et al. (2015: 332) found for younger German workers during the nine years after their first employment (aged 18 to 31 at that time). Sacchia et al. (2016: 16) analyzed early-to-middle careers in Switzerland and found that episodes of non-employment (without further distinction as to their cause) rendered occupational mobility more likely, with the largest effect on lateral moves. When Johnson et al. (2009: 39) show that exiting the old job in order to retire raises the likelihood of switching profession, this move will have different motivations than when somebody has become unemployed. So far, research has not differentiated enough the intermediary activities in case of indirect changes of occupation.

In terms of path dependency in individuals’ employment trajectory, a previous change of occupation could make a further one more likely. As Sanzenbacher et al. (2017: 6) argue with regard to *job* change, one could also expect that *due to less job tenure* older workers who change occupation “could be significantly more likely to be dismissed [...] in the sharp cyclic downturn than workers who did not change jobs” and then have to accept other new occupations paid worse than the old one. Longer tenure in the current job has, indeed, a slightly positive effect on preventing downward mobility (Wilson/Roscigno 2018: 59, 61). In a longitudinal study by Mayer et al. (1997: 91) of East Germans’ employment careers before and up to 3 years after German unification, those with stable careers before the system change had a higher likelihood of remaining in their jobs in a unified Germany, while the formerly mobile ones (upwards and downwards, as well as regarding a change of occupational field) tended to remain occupationally mobile (Mayer et al. 1997: 111-112). It remained unclear whether this “consistency” of occupational mobility was voluntary or due to difficulty in establishing a foothold in a new occupation.

5.7 Gender and households

Besides education and occupational expertise as acquired features of individuals, gender as an ascribed category turns out to be distinctive for varying rates of occupational mobility and its vertical characteristic. For instance, female qualified blue-collar workers in Germany are more prone than their male counterparts to transition into unqualified positions and into unemployment, while upward mobility into a white-collar job is rare (Groh-Samberg/Hertel 2011: 135, 141; see also chapter 4 in this review). Direct discrimination of women by potential employers may play a role here, but gender disparities may have also to do with the kind of occupations men and women typically train for, and with respective gender segregation of both in the education/training system and in the labor market (e.g. Leuze/Strauß 2014; Hall 2012; Piasna/Drahokoupil 2017).

The gendered division of child-raising and homemaking in households could be even more important. "Linked lives" need to be taken into account, as life course research underlines (DiPrete 2002: 268; Moen 2004: 271 regarding transitions into retirement). Gendered relations in households and couples might trigger the need for, or the opportunity for, occupational mobility. For example, in middle and late careers, an involuntary change of occupation in order to earn (more) money could be triggered by the need to finance an adult child's college education, when a partner becomes unemployed or after a separation and divorce. The necessity and/or wish to reduce working hours, which may lead to downward mobility, could be caused by the late birth of a child or the need to look after a sick partner or older parent. The opportunity to make an upward or lateral occupational move may be realized by the financial means of other household members (e.g., when a partner is able to finance a break from work in order to go back to school).

For Germany, Groh-Samberg and Hertel (2011: 141) found that women who leave the labor market to raise their children and later re-enter the labor market most often take up only routine service jobs. Similarly, among British women who changed from full-time to part-time jobs (probably due to family responsibilities), up to a quarter switched to occupations that required fewer qualifications than the previous ones (Connolly/Gregory 2007: 4). Sacchia et al. (2016: 18) show that it is indeed the longer episodes of non-employment that mediates Swiss women's higher risk of occupational downward mobility. Furthermore, within households, the relative positioning of female to male partners are influential: In line with conservative gender roles, German women in their 20s and 30s married to men with above-average salaries tend to experience downward income mobility, probably taking up a complementary job with few hours of work; this holds true independent of the women's education. (Pollmann-Schult 2006: 587). For women whose spouses did not work or earned only little, this was not the case (ibid) – a result which stresses the importance of the intersection of gender and social class. Overall, however, very little is known about the interacting influences of gender, partnership and family-related responsibilities on occupational mobility in the second half of individual careers.

5.8 Ethnicity and migration

Only very few studies mention ethno-racial membership and racist discrimination as a factor impacting occupational mobility. Wilson and Roscigno (2018: 55) show that among US workers aged 55 and older, relative to whites, African American men and women experience significantly higher rates of moving from privileged "occupational positions or occupational categories associated with the managerial and professional ranks" to lower-level ones (based on broad occupational categories in the 2010 US-census); section 4 already reported the bivariate results. Multivariate models underline that racial disparities are "espe-

cially pronounced among men and for those initially occupying higher-status white-collar managerial and professional jobs compared to technical/skilled professional and blue-collar ‘first line’ supervisors” (Wilson/Roscigno 2018: 52, 62). The privilege of whites turns out to be a stronger influence than a post-college education in terms of protecting against downward mobility (ibid: 59, 61). Similarly, McBrier and Wilson (2004) show that among *younger* American workers, African-Americans have a higher risk of downward mobility from white-collar to blue-collar jobs, compared to other ethnic groups.

With respect to migration-specific influences – without necessarily using the term of occupational downward mobility – a number of studies analyze to what extent and why many immigrants who have attained occupational qualifications in their home country either remain jobless for more or less longer periods after immigration, or only manage to find unqualified jobs well below their actual level of education and outside their professional field (Kogan 2011: 107; Chiswick/Miller 2009: 165, 167). A main factor responsible for this downward transition after migration is that foreign credentials and work experience frequently go unrecognized. This devaluation of some immigrants’ human capital can be partly explained by the functionalist argument that certain qualifications are simply not in demand in the host country (e.g. a mining expert in a country without a mining industry). Other times, employers find it hard to decipher the “signals” of applicants’ foreign qualification due to lacking information (Kogan/Weißmann 2013: 187, with reference to signaling theory) – though the boundary between lacking information on foreign diplomas and racist stereotypes about the country of origin or the larger ethnic immigrant groups is blurry.

From a institutionalist and relational view on social inequality, knowledge and certificates – conceptualized as cultural capital (Bourdieu 1986) – are often bounded to national contexts. Occupations like lawyers or literature teachers in the national language, for instance, have knowledge very specific to single nation states. But also with regard to professions that are common and in demand in any state (e.g., in the health sector), devaluation takes place native insiders seek to protect their privileged jobs from competitors from abroad (Nohl et al. 2014: 45-47). Upholding occupational quality standards (rather than keeping out potential competitors) is a common legitimation in this instance of social closure. Immigrants from countries with educational and occupational training schemes structured very differently than that of the country of reception, as well as immigrants from poor countries, which are often assumed to offer qualitatively worse education than wealthy countries, can be expected to experience occupational downward mobility most often.

Additionally, state-regulated conditions of immigration and contexts of integration influence immigrants’ employment histories, too (Söhn 2013: 302-304, 306). Immigrating without having a job offer at hand, as in the case of most immigration based on family reunion and of refugees, and experiencing legal barriers to entering the labor market – typical for asylum seekers and other refugees with precarious legal status – should make occupational *discontinuity* within immigrants’ transnational occupational trajectories more likely than among natives.

While there are many studies that investigate immigrants’ economic incorporation outcomes (like their above-average risk of becoming and remaining unemployed), there is, to my knowledge, no quantitative study that explicitly compares the occupation held before emigrating and the occupation held after arrival. However, when Mammei and Schiener (1998: 105-106) show that East European immigrants of German origin often work in unqualified jobs despite having some sort of vocational training, this clearly points to occupational downward mobility. Also in Germany, Kogan (2012: 81, 83) shows that among ethnic

German immigrants and Jewish refugees (both from the former Soviet Union), the higher the educational level, the more likely they are to try to have their foreign qualification recognized by German institutions. A successful recognition of the foreign qualification as equivalent to a German one, in turn, significantly increases the occupational status of the employment attained thereafter – implying the non-occurrence of occupational mobility as positive integration outcome.

5.9 Welfare state institutions and recent policy reforms

Re-training or further education which prepares workers for a switch of occupation can be costly for individuals when it has to be paid out of their own pocket. In certain conditions, state institutions might sponsor or at least subsidize it. The German welfare state provides some opportunities for lateral occupational mobility. When workers have been on sick leave for more than six months and have medical confirmation that they can no longer work in their previous occupation, the German statutory pension system may finance training for a different occupation when an insured person applies for this (Brussig/Knuth 2010: 316). However, among the ca. 30,000 cases of work-related rehabilitation in 2013, people aged 50 and older participated at a below-average rate (DRV 2013: 6, 63). Following a more preventative approach, a recent government-financed online-coaching tool by the German Federal Institute for Vocational Education and Training (BIBB) supports older workers with a horizontal change of occupation with the goal of maintaining the health capacity needed to work until formal retirement age (Zieschang et al. 2015). The German unemployment agency has offered government-subsidized re-training schemes to unemployed persons for a long time. However, people aged 50 and older were underrepresented in such programs (10 percent instead of 30 percent); this share was almost constant in the years 2007 to 2013, though three times as high as in 2005 (Dietz/Walwei 2011: 373; BA 2014: 17; Bellmann/Leber 2008: 47).

In the US, states' vocational rehabilitation services offer means-tested co-financing of educational programs to disabled workers.⁸ A study on injured workers' satisfaction with retraining programs offered by vocational rehabilitation services reports an average age of 47 right before the retraining took place (Sears et al. 2014: 462). Hence, older workers do profit from it, but there seems to be little knowledge about the kind of occupational change the participants undergo, i.e., the characteristics of the old and new occupations.

Until the 1990s in Germany (and until the 1980s in the US), the major response of politics and employers to job losses due to industrial restructuring (see section 5.10) and to the massive closure of factories in the aftermath of German reunification were early retirement programs for older workers (Ebbinghaus/Hofäcker 2013). Due to a number of reasons like demographic aging, the rise of free-market ideology even in social-democratic governments, and high unemployment in the case of Germany, these heavily frequented institutionalized avenues into early retirement have been cut off or reduced, and the overall pressure to enter and stay in the labor market has increased since.

Several neoliberal social policy reforms since German reunification and especially since the mid-2000s have moved Germany somewhat closer to the liberal American model: "Activating" labor market policies allowed an increase of temp work, fixed-term contracts, and/or of marginal low-part time jobs (Hense 2016: 7-8). In 2005, strictly means-tested benefits for people who are unemployed long-term, i.e. 13 months or more, 18 months for unemployed workers aged 55 to 57, and 25 months for those 58 and older, were newly in-

8 For the state of e.g. New York see <http://www.acces.nysed.gov/vr/vocational-rehabilitation-services>; for federal statistics differentiated by occupation see https://www.bls.gov/oes/current/naics4_624300.htm.

roduced. The long-term unemployed now have to accept any kind of employment irrespective of previous occupational experience to avoid financial penalties (Lessenich 2008: 86-89). Furthermore, for the birth cohort 1949 and younger, German retirement reforms in the 2000s made it costlier to retire before the formal retirement age due to the introduction of permanent reductions in old-age pensions. Equally important, some institutional paths into early retirement were phased out, namely old-age pensions for women and for the unemployed (from age 60 to 63 onwards) (Brussig 2012: 2). In addition, since 2012, the age at which statutory old-age pensions can be drawn upon without reduction rises by one month per birth cohort until it reaches 67 years for the birth cohort 1964 and all following ones (Söhn/Mika 2017: 7).

In the US, the period from 2000 onward has not witnessed an equally radical change in labor market regulation and social policy (with the major exception of the Affordable Care Act, which is currently at stake again). Yet, according to O'Rand and Hamil-Luker (2011: 288), deregulation of the labor and finance markets has increased since the 1990s. This has led to steeper economic highs and lows, associated with a greater polarization between the working precariat and unemployed labor market outsiders on the one hand and well-educated insiders, who enjoy higher salaries and better opportunities, on the other hand. With regard to retirement regulations in particular, there is a continuous increase of the age (67 for birth cohort 1960) at which the old-age pension provided by Social Security Insurance (SSI) goes without permanent reductions (Ebbinghaus/Hofäcker 2013: 818). Furthermore, there is an ongoing replacement of employer-supported defined-benefit pension schemes with less secure defined-contribution plans, as well as an increase in out-of-pocket medical expenditures (Bonen/Ghilarducci 2014: 411; Sanzenbacher et al. 2017: 1). These institutional factors tend to increase the need to work longer, as insufficient Social Security entitlements and private pension plans as well as rising expenses for health care prohibit an earlier exit (Ebbinghaus/Hofäcker 2013: 830). This development lays the ground for more downward occupational mobility.

5.10 Macro-economic developments

Structural changes in Western economies like de-industrialization and rationalization in terms of technological changes in production have "pushed" workers away from the respective industrial sectors and sector-specific occupations. Industries which have undergone permanent shrinking, outsourcing to low-wage countries, and which have seen the substitution of manual work by modern technologies are the metal and construction industry, as well agriculture and mining (DiPrete 2002: 292; Seibert 2007: 5 for Germany; Kye 2008: for Korea regarding occupational mobility within firms). While some workers who get laid off in declining economic sectors may be able to resort to early retirement, for others seeking employment in a different occupation is the only option to earn money (Mayer et al. 2010: 372). Furthermore, this effect could be particularly relevant for older workers, as they are overrepresented in "dying" industrial sectors (Buchholz et al. 2011: 10). On the demand side, tertiarization and the increase of knowledge-intensive jobs possibly attract older workers willing to or forced to change occupation. Service jobs are indeed often the aim of occupationally mobile workers, as chapter 5.5 has already shown. This tendency underlines that this sectorial shift is not only based on the young generations entering this sector after school, but also on intra-generational mobility of workers in their later careers. The impact of macro-economic change may exhibit gender-specific particularities. Deindustrialization and tertiarization of the overall occupational structure will continue to involve a shrinking of male-dominated occupations like coal mining and an expansion of female dominated sectors like health and education. Given the rising employment rate of women, more men than women could be forced to switch occupation in the future.

But even when older men and women work in thriving industries, fast technological change can make it objectively harder and more challenging for older workers to keep up with the latest developments, and thus to avoid skills obsolescence. For instance, in the IT industry, the “half life” of occupational-specific knowledge is said to have decreased over the last decade.⁹ It may also be that employers simply believe that older workers are less able to keep up with such continuous learning, and that they act upon this prejudice. Certain occupational subcultures are characterized by particularly high degrees of ageism – consider the “youth cult” in the fashion industry – which makes it hard to grow old in certain occupations (except in the few executive positions), and which pushes middle-aged workers more or less gently to other occupational fields, or does not let them in in the first place.

As to other structural features of companies, employees in large firms and in the public sector are more hesitant to become occupationally mobile (Damelang et al. 2015: 325; Kambourov/Manovskii 2008: 65). Also, unionized jobs in the US tend to protect workers from occupational downward mobility, but this is more often the case for managers and professionals than for the less prestigious positions of skilled/technical white-collar workers and blue-collar supervisors (Wilson/Roscigno 2018, 61). Rutledge et al. (2015: 4-5, 11) add that older American workers are more likely to be recruited into occupations with an already disproportionately high share of older workers, especially of low-educated males. This latter aspect has not been studied in Germany so far.

Recent trends in older workers' employment

The remainder of this chapter is dedicated to insights on the increase of employment among workers within the age bracket of 50 to 70 both in Germany and the US within the last decade, for which there are hardly any data on the occurrence of occupational mobility. After all, the higher the number of older people in employment, the larger is the *potential* for such changes to happen.

The share of American men and women claiming Social Security at 62, the earliest possible age, declined by about 20 percentage points from the birth cohort 1931 to that of 1947; those with a formal retirement age of 65 and above increased by up to 12.5 percentage points (Munnell et al. 2016: figure 2 & 3). Similarly, the average age at which Germans start receiving statutory old-age pensions rose from 62.6 to 64.1 years between 2009 and 2015 (DRV 2016: 68). The average age of final exit from employment (often not the same as the age at which they first collect Social Security or a pension) also rose by 1.2 years from birth cohort 1945 to 1948 alone and reached an average age of 61.7 years (Brussig 2015: 1; Brussig/Ribbat 2014: 7 on cohorts 1934 to 1952). The international comparison of Ebbinghaus and Hofäcker (2013: 811, figure 1) shows that the increase of 60-to-64-year-olds in the work force between 2000 and 2010 was most pronounced in Germany next to Netherlands and Sweden. However, with an employment rate of almost 50 percent in this age bracket, Germany still lagged behind the US by 6 percentage points.

As older workers can no longer resort to early retirement so easily, being laid off becomes a much more serious problem than in former times: They now have to stay in the labor force. Lippmann and Brown (2016: 564) report that the risk of job loss has disproportionately increased among workers aged 50 plus within the last decade, which was marked by the Great Recession in 2008. Unemployment in this age group remained high in the years

⁹ Without giving a reference, a *New Yorker* article claims that an engineer's “half life” of knowledge shrank from 35 years in the 1920s, to ten years in the 1960s, and to “less than” three years for a present-day software engineer (Friend 2007: 2)

thereafter (Saad-Lessler/Ghilarducci 2013: 5). Even before the Great Recession, they had a below-average chance of becoming re-employed (Chan/Huff Stevens 2001) and if they regained employment, they tended to have lower wages than in their previous job (Chan/Huff Stevens 2004), probably caused by occupational downward mobility in many cases. Compared to younger American workers, especially the rates of 62- to 71-year-olds who transitioned from employment to non-employment or from unemployment to non-employment have witnessed the largest decrease within the last two decades (Burtless 2015: 41-43).

In Germany, in contrast to preceding decades, in the economically prospering years 2009 to 2014, 49- to 64-year-olds displayed only a slightly higher unemployment rate than the average German worker (Lehweß-Litzmann 2016: 5). But even though the unemployment rate among the 50-to-64-year-old Germans declined from 8.4 percent in 2008 to 6.3 percent in 2016, the share of this age group among all unemployed persons actually rose from 26.4 percent to 33.1 percent (BA 2017: Tab. 2.5.1). Hence, ageism is still very much alive when it comes to re-employment. Once workers are unemployed, with no early retirement in sight, the pressure to accept downward mobility should have increased in both Germany and the US.

Before complete withdrawal from the labor force, many workers take on transitional employment – which again shows the high potential for a change of occupation. In the US, between 54 percent (women born between 1931 and 1941) and 74 percent (women of the birth cohorts 1948 to 1953) moved to a bridge job after leaving their full-time career job (i.e., a job with at least 10 years of tenure) (Cahill et al. 2015: 388, based on the HRS). Furthermore, 20 percent of all US birth cohorts 1931 to 1941 un-retired, i.e., returned to the labor employment after having retired after age 63 (O’Rand/Hamil-Luker 2011: 295). In 2008, 30.9 percent among 65-to-74-year-old Americans held a job (Lain 2015: Table 2.1). Lippke et al. (2015: 76) report shares of 12 percent and 25 percent among German women and men in the same age bracket. In 2014, among the 60- to-65-year-old Germans who received an old-age pension (i.e., who had retired early) almost one in five was employed (mainly in marginal part-time jobs); among those aged 65 to 70, 17.2 percent were employed (Franke/Wetzel 2017: 57; Hofäcker/Naumann 2015: 477 for a multivariate analysis supporting the historical increase of employed retirees in Germany). In her international comparison for the year 2012, Scherger reports overall employment rates for workers aged 65 and older which amount to ca. 22 percent in the USA and Portugal, 18 percent in Sweden, 12 percent in the UK, 7 percent in Germany and the EU28 as well as rates below 5 percent in France, Hungary, and Spain, with most countries showing an increase of this share since the year 2000 (Scherger 2015: figure 1.1). In addition, 36 percent of older German workers and about half of American ones can conceive themselves working and drawing on their old-age pension at the same time (Fasbender et al. 2015: 127; Boveda/Metz 2016: 154). Furthermore, within the last ten years or so, the share of older German workers in nonstandard employment has risen just as the share of under-average salaries among older workers with fixed-term contracts has (StaBa 2017: Table 1; Wingerter 2009: 1090). The hypothesis that this development could be the result of occupational downward mobility among older workers calls for rigorous empirical testing.

As prolonged employment among older workers increases the potential for changing occupation, the social selection of who continues to work and of who exits the labor force for good will be important for future studies on occupational mobility. Social stratification is relevant for employment in older ages in a complex way: On the one hand, workers in low qualified jobs – and some psychologically challenging mid-level occupations (Mika 2013: 396) – receive disability pensions (Coile et al. 2014: 16, 45) and experience transitory

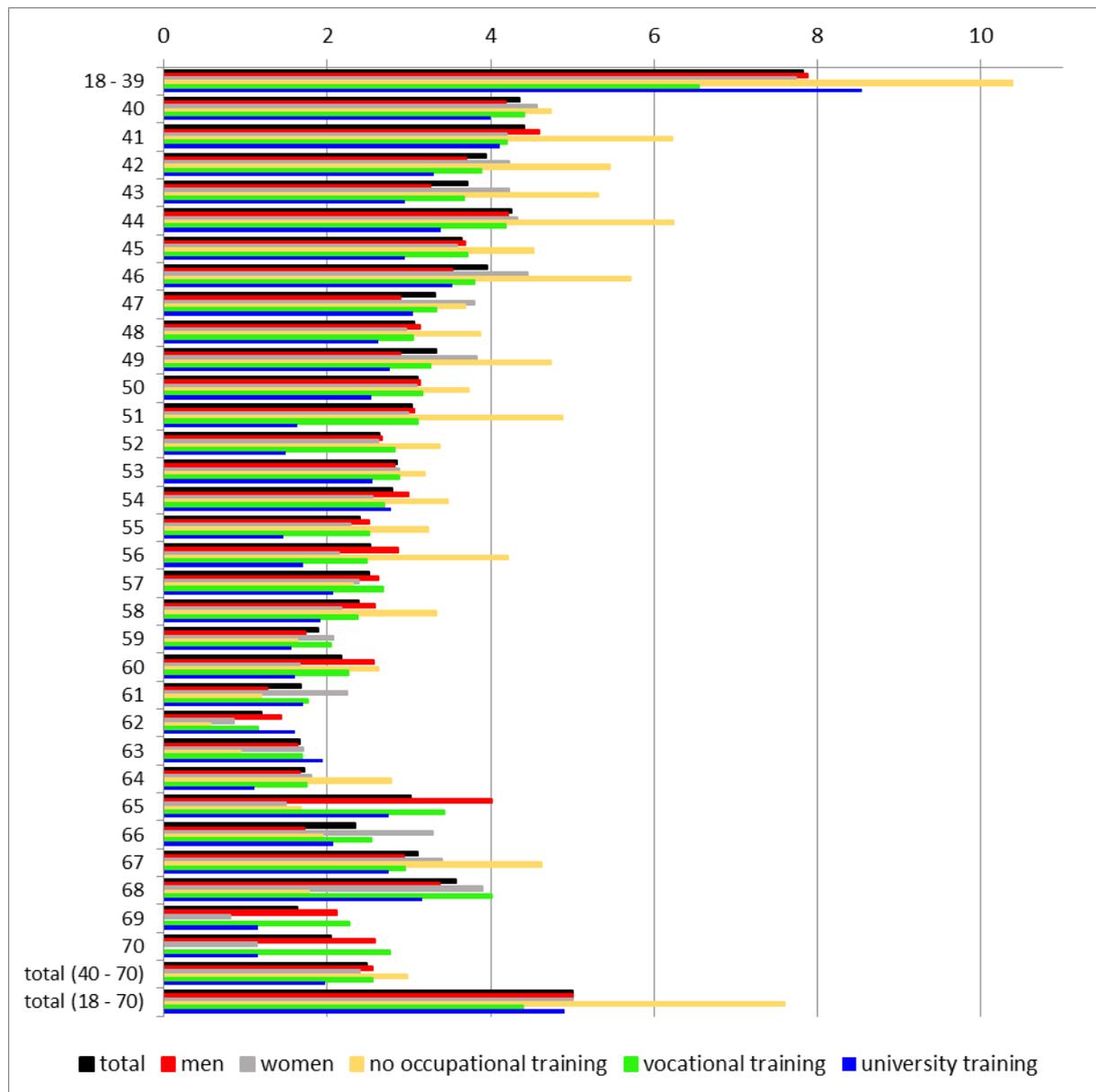
unemployment before retiring more often than higher qualified ones (Coile et al. 2014: 19; Kurz et al. 2013: 316). At the same time, those blue-collar workers who are able to work and find work stay employed as long as possible to increase their meager pension entitlements (Brussig 2012: 16-17; see also Radl 2013: 662 for an analysis in several European countries). In comparison to workers with a medium level of qualification, workers with academic training, especially those in white-collar jobs in the fields of education and social services, as well as tenured civil servants and the self-employed, work longer (Radl 2013: 659; Brussig/Ribbat 2014: 12-13). The fact that a prolongation of employment in older ages is socially selective in a number of ways will surely influence the social patterns of occupational mobility, as well as its vertical and horizontal dimension.

6 First insights into current occupational mobility among Germans aged 40 to 70

This section presents first bivariate analyses of the German *Mikrozensus*, an annual survey of 1 percent of all households in Germany carried out by the German Statistical Offices. In contrast to any other scientific survey in Germany, participants are obliged by law to take part. In the wave of 2012, the latest for which a scientific use file is available, respondents who were currently employed were asked whether they had changed their occupation within the last 12 months. The following Figure 1 depicts the percentages of those who answered yes to this question.

Corroborating previous research, the group of younger workers aged 18 to 40 display a substantially higher share of 7.8 percent than any of the older ones with 2.5 percent on average within the age bracket 40 to 70. The relationship between age and occupational mobility among workers from age 40 to 70 is not linear, however: After a relative low in the early 60s, there is a rise thereafter – probably retired people who take on a marginal part-time job outside of their previous occupational field. Mainly among those aged 60 plus, men show higher rates of occupational change than women. Yet one should keep in mind that in this bracket the group who is still in the workforce tends to be more socially selective than in younger ages.

Figure 1: Share of workers who changed occupation during the previous 12 months among all employees in Germany in 2012: by age (in %)



Source: Scientific Use File of the 2012 German *Mikrozensus*; own calculation (weighted data)

With regard to the level of education, we see the U-shape of workers both without occupational qualification and with academic training displaying above-average shares of occupational mobility, just as Damelang et al. (2015: 325) show it for those below age 40. Above this threshold, however, the differences in shares are less pronounced between the three educational groups than among younger ones, which reminds us of the non-significant results in some studies on older Americans (Rutledge et al. 2015: 14; Kambourov/Manovskii 2008: 58). Additionally, in the 40s and 50s, a higher share of workers without occupational training show above-average rates, echoing similar results for 40-to-54-year old blue-collar workers in the German study by Groh-Samberg and Hertel (2011: 131-134), while in the smaller groups of workers in their 60s there is rather inconsistent variation.

However, these results are only cross-sectional. Neither do we know the share of annual changes of occupation in the decade before nor the years after this 2012 survey. Furthermore, there are no findings yet regarding the occurrence with the last ten to 15 years of current older workers, based on longitudinal data.

7 Summary of previous research and remaining research gaps

Summarizing the present state of the art about occupational mobility among older workers, scientific knowledge is still patchy and more so with regard to Germany than to the US – despite important insights from previous research on early careers and on neighboring phenomena like income mobility. In the US, 27 percent of workers in their mid-60s went through a change of occupation between 1992 and 2006, and hourly wages declined by 36 percent on average, as shown by Johnson et al. (2009: 26, 36), who have studied occupational mobility among workers in most details so far. High wage loss of workers in their 50s who were laid off in the Great Recession and re-employed during the recovery speak for higher rates of switches down the occupational ladder in most recent decade. Regarding downward mobility from managerial, professional, skilled/technical white-collar or supervisory blue collar positions, the shares of downward mobility in the years 2009 to 2015 are higher, ranging from 0.18 percent to 0.37 percent for different subgroups studied by Wilson and Roscigno (2018: 57). Yet, changes of occupation below those prestigious positions have not been explicitly studied for this latest period.

In contrast to the clear indicators for the US that switching occupation and occupational downward mobility have become more common among older workers over the last two decades, quantitative information for Germany is too scarce to even state this kind of historical trend with regard to middle and late careers, especially not for the period from the mid-2000s onward. There are good reasons to assume, however, that the German experience with occupational change might be converging with the U.S. trend. The booming German economy offers more working opportunities for older workers and recent neo-liberal labor market and retirement reforms have pushed older people to work longer. These two developments have contributed to rising employment rates among older German workers – which in turn boosts the *potential* for change of occupation among this part of the labor force as well.

Apart from information on the occurrence of occupational mobility and changes of selected features of the old and new jobs, a more holistic in-depth description of occupational mobility in its multidimensional nature, that is, a typology thereof, is still missing. While certain vertical features like income and occupational prestige are clearly interrelated, we know very little about their correlation with other occupational aspects like the change of working hours, switches from salaried work to self-employment, complementary government transfers like old-age or disability pensions.

Some, but not all, American studies and even fewer German studies have shown that low as well as high levels of education raise the likelihood of occupational change. The risk of downward mobility is especially high among blue-collar workers with their physically demanding occupations and among little-educated workers. In contrast, American professionals display an above-average chance to move up to a managerial position. In light of the ever-growing knowledge-intensive economic sector, these socio-economic disparities regarding occupational downward mobility might become even larger in years to come.

As to the significance of the occupational field, older American workers moved most often into service jobs, and females who already worked in services least often changed to a different occupational field. In a somewhat similar vein, first results on older German workers in physically demanding trades like masons imply that a substantial share of blue-collar workers aged 45 and older switched to service jobs with little educational requirements. These results underline that macro-economic long-term developments like de-industrialization, rationalization, and tertiarization are mirrored in structural patterns of intra-generational occupational mobility. However, still little is known about downward mobility from service-class occupations and from more middle-class occupational statuses (which happen, too, although at a lower rate than from blue-collar ones). In terms of avoiding unemployment and early retirement, with its financial disadvantages, some workers in the occupational middle field could feel particularly pressured to switch to disadvantageous occupations, if there are no better alternatives.

As to further occupation-related factors, investigations on (early) employment careers in Germany could show that professions with highly specialized and standardized training curricula, as well as those with a high degree of occupational closure, render a switch out of and into them less frequent than more open ones. What we do not know yet is in how far the effects of occupational specificity and closure weaken during the second half of their working life.

Some scholars have looked into the way the switch of occupations is embedded in individual employment careers. Trigger events are, above all, job displacements, but also the need to switch to part-time due to family-related responsibilities at home or health problems. Among the few longitudinal studies on occupational mobility, none has analyzed the type of activity or status that precedes indirect moves to new occupations. Future analyses should try to differentiate the effects of intermediary unemployment, reproductive work, sickness, or occupation training on the vertical nature of occupational mobility.

Even though public discourse has stressed the importance of lifelong learning again and again as crucial for ageing workers in today's dynamic labor markets, empirical studies have hardly analyzed the link between further education and continuing occupational training on the one hand and the occurrence of occupational mobility in later life on the other. In line with popular norms of professional self-fulfillment, and possibly enhancing the chance to remain employed until the regular retirement age and beyond, voluntary lateral and upward occupational mobility is especially likely to be in need of further training preceding or parallel to the change into a new occupational field. There are special welfare-state programs for re-training long-term unemployed workers and those who cannot continue in their old profession due to health problems and disability. But there is only very limited information about the actual participation of older workers and their potential reemployment, and too little differentiation of the kind of illness. In that regard, mental illnesses are of particular interest, as they have become more common and hit those in white-collar jobs as often as less privileged workers. Overall, further education and occupational retraining related to occupational mobility deserves more attention in future research.

As to gender disparities, research on younger age groups and early employment careers in Germany, as well as on income mobility among older American workers, has shown that women with low levels of education in particular, and mothers after returning to the labor market, face an above-average risk of encountering downward mobility. Hence, future studies should remain sensitive to the interaction of gender, social class and educational attainment. The household context with its income resources and needs beyond those of

the individual worker, the gendered relation within couples like income differentials, and their internal division of labor have only rarely been taken into account, and certainly not with regard to the age group concerned. Finally, racism leads to high risks of occupational downward mobility among African-American qualified workers, and the non-recognition of foreign credentials leads many qualified immigrants to put up with initial phases of unemployment or precarious employment below their actual level of qualification in the first years after arrival. Migration research focusing on such transnational employment careers and scholars of occupational mobility in the general population will surely profit from a stronger cooperation and intellectual exchange in the future.

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