

Introduction

This study examines the impact of job loss on individuals' careers and lives. This topic has been widely studied by social scientists, but our study innovates on three accounts. First, by examining the effect of plant closure on an array of outcomes ranging from workers' wages and their social lives to their subjective well-being, we offer an interdisciplinary perspective on plant closure. We focus not only on economic factors as has been done by a large part of the plant closure literature but integrate an analysis of the social and psychological consequences of job displacement. Second, by conducting our own survey, we are able to analyze a population on which very little data is publicly available in Switzerland or in Europe. We conducted our own survey among 1200 workers from five companies. Using plant closure data and a tailor-made study design, we address typical methodological limits of observational data such as selection or nonresponse bias. In addition, we had the opportunity to personally meet some of the affected workers and thereby receive qualitative insight into their experience. Third, our study is situated in the context of the financial crisis of 2008. The companies that we examine closed down soon after, in 2009 or 2010. Our study thus contributes to a strand of the scholarly literature that emerged in the aftermath of the crisis, aiming at analyzing its consequences for the societies affected. Moreover, focusing on the manufacturing sector, we provide evidence on labor adjustment processes in the secondary sector and thus contribute to the debate about deindustrialization.

From a perspective integrating sociological, economic, and psychological theory, it is interesting to understand how job loss affects different dimensions of workers' quality of life. Since in Western societies individuals' social status depends heavily on participation in the labor market, being made redundant usually induces a feeling of failure and threatens workers' identity (Gallie and Paugam 2000, Sennett 1998). Durkheim (1933 [1893]) argued that in modern societies employment has an integrative function and that individuals' social status is significantly determined by their particular occupational function. Consequently, plant closure constitutes a major social issue with possibly far-reaching consequences, not only for the laid-off individuals and their families but also for entire regions.

A seminal study conducted in Austria during the Great Depression of the 1930s by Jahoda et al. (1971 [1933]) documented the disrupting effects of massive job displacement on a village community. The researchers found that joblessness not only put families in a difficult financial situation but also paralyzed the workers in their efforts to keep up a regular daily structure and pursue leisure activities as they had before losing their job. At the community level, this adversity led to a corrosion of common activities and shared responsibilities. Similarly, the financial crisis of the early twenty-first century has produced severe economic damage. The Great Recession has led to massive job destruction, not only in the financial sector but also in manufacturing, services, and the public sector (Baccaro 2010: 342). This situation both gives rise to a need and provides an opportunity to collect and analyze data about how workers deal with the critical situation of job loss.

Understanding the Impact of Plant Closure on Workers' Careers and Lives

Our first research question addresses the workers' reemployment prospects. It has been argued that workers made redundant because of plant closure return more easily to employment than those who are laid off individually (Gibbons and Katz 1991). This has been explained by individual layoff acting as a negative signal to future employers, indicating a lower ability of the worker. In the case of plant closure in contrast, such a signal does not exist since employers know that workers lost their job simply because their plant closed down. Nevertheless, although workers affected by plant closure are obviously employable – as they were working before displacement – their career prospects are curtailed in comparison with workers who were never displaced (Kuhn 2002).

A second set of research questions examines the characteristics of the jobs in which workers are reemployed. Employment in the tertiary sector has been steadily increasing in the recent decades, while employment in the secondary sector stagnated. This process raises the question whether displaced manufacturing workers have to change sector in order to avoid long-term unemployment. The skills of manufacturing workers may be little transferable to the service sector, thereby forcing workers to accept low-end jobs which do not correspond to their skill profile (Iversen and Cusack 2000: 326). As a consequence, they would not receive the same financial returns in their new job and have to put up with wage losses. In addition, having experienced a spell of unemployment seems to increase the risk of being reemployed in less stable jobs (Payne and Payne 1993: 528). Accordingly, displaced workers may be at risk of being reemployed in more precarious jobs as compared with both their pre-displacement job and with workers who were continuously employed.

Third, based on the assumption of negative spillover effects from employment relationship on other realms of workers' lives, our study aims to inquire how job

loss affects workers' sociability. Gallie (2003: 61–2) highlights that the two most influential traditions of labor market research since the 1960s, the neo-Marxist and the liberal theories, share the view that the nature of work tasks and work organization is at the center of individuals' well-being and broader social cohesion. In a similar vein, Kalleberg (2009: 1–2) argues that if workers experience occupational downgrading, their work experience and economic security are likely to be negatively affected, which in turn has far-reaching consequences for their family life and social participation. In addition, it is of crucial interest to examine how plant closure affects workers' life satisfaction. Mass displacement usually comes as a shock for the workers concerned and leaves them with anxiety about their future careers (Gallo et al. 2006). Subjective well-being is closely linked to the quality of the workers' new job but also to their social relationships, which may have suffered as a consequence of the uncertainty following displacement.

Fourth, our study emphasizes that workers have different levels of vulnerability to critical events such as plant closure. One of the principal aims of our study is to identify the individual characteristics which acted as resources or constraints in the occupational transition after job loss. We thus strive to provide insights into the mechanisms behind smooth and difficult transitions. Plant closure may be a triggering factor of completely divergent career outcomes, thereby contributing to labor market segmentation or even social exclusion (Kalleberg and Sorensen 1979: 354). Referring to a concept from the life course paradigm, we endeavor to understand whether the critical event of plant closure rather constitutes a “turning point” or a “transition” in workers' lives. In this context, the term transition stands for gradual change connected with acquiring or relinquishing new roles. The notion of turning point refers to the stages at which a life trajectory shifts in direction or is discontinuous in form (Settersten 2003: 25). In the context of our study, the concept of transition describes the passage into an occupational position that is similar to the one occupied before displacement. The notion of turning point, by contrast, is used to describe the situation of individuals who completely leave the labor market after displacement or who experience a radical change with respect to their job-related social status.

Using Plant Closure Data and a Tailor-Made Survey Design

We analyze our research questions by drawing on a survey of the complete workforce of five manufacturing plants which closed down in 2009 or 2010 for reasons such as bankruptcy or delocalization of production. We exclusively considered plants that closed down completely, in order to avoid the sampling of workers who were made redundant individually. In fact, individual layoff is probably not random, which makes the causal analysis of the impact of job loss on the ensuing work career tricky: the same factors causing the workers to lose their jobs, such as poor health or lack of motivation, may also reduce their reemployment prospects (Brand 2015).

The workers were surveyed about 2 years after their job loss, which allows us to examine the mid-term effects of job displacement. However, our data is cross-sectional, and only the retrospective information about workers' pre-displacement job provides us with a quasi-longitudinal structure. Even though longitudinal studies are always to be preferred, cross-sectional studies using retrospective recall constitute a second-best solution (Hardt and Rutter 2004). The advantage of having two assessments of workers' situation – one before and one after displacement – is that we can measure within-individual changes such as changes in wages, job quality, or well-being.

Our data was complemented with register data from the public unemployment insurance and from firm registers. This combination not only extends the number of observations and enhances the reliability of the data but also allows us to control for nonresponse bias. Nonresponse bias is a typical problem in observational data that arises from the fact that some types of individuals are more likely to participate in a survey than others. Whenever possible, we use a difference-in-difference design to measure the causal effect of plant closure on workers' lives. Using data from the Swiss Household Panel and a technique known as propensity score matching, we construct a control group in order to compare the outcomes of displaced workers with those of non-displaced workers.

Unequal Outcomes

Our analysis reveals that about two-thirds of the displaced workers managed to return to a job within 2 years of displacement, while about a sixth were still or again unemployed. Among the reemployed, more than two-thirds returned to a job in manufacturing and thus were not forced into a low-end service job in order to avoid unemployment. This seems to show that within the secondary sector labor churning is paralleled by the creation of new employment and that the pace of deindustrialization in Switzerland is rather slow. On average, reemployed workers experience a slight wage decrease, but variance is substantial. Asked about their subjective evaluation of wage losses, twice as many workers indicate having experienced strong wage losses as those reporting strong wage gains. Also in terms of other job quality indicators, some lose out heavily, while others experience an improvement as compared with their pre-displacement job.

Which factor best explains whether workers were more positively or negatively affected by plant closure? Our analysis strikingly shows that an age over 55 most strongly hampers workers' career prospects. Older workers face strong hurdles in returning to employment. If they manage to find a new job, they are often reemployed in jobs of lower quality and have to put with the largest wage losses of all age cohorts. Only if older workers were able to enter retirement – either regularly or through early retirement plans – did they experience a smooth transition. The retired constitute the subgroup of workers who evaluate the change in their life satisfaction between before and after displacement most positively. Since most of the retirees

retired *early*, their high levels of well-being suggest that a majority of them decided voluntarily to take this path and were not pushed out of the labor force. Still, a minority seems to have been forced into this pathway as an alternative to long-term unemployment.

The finding that older workers are the most vulnerable subgroup in the labor market after job loss is interesting in the context of a large body of literature that argues that labor market institutions are mainly biased against young workers. A study covering 27 OECD countries shows that in most countries the rate of unemployment is substantially higher for young than prime-age workers (Breen 2005). Youth unemployment is particularly high where employment protection is high and where the educational system fails to clearly signal the candidate's suitability for a particular job (Gangl 2002: 48). Since Switzerland has weak employment protection and a highly standardized vocational education system certifying credentials and linking the educational system closely with the labor market, young people manage the transition from school to work much better than in most other countries (Buchmann and Stefan 1998, Breen and Buchmann 2002: 294, Breen 2005: 130). Yet an educational system that strongly accentuates vocational training may negatively affect labor force integration in workers' late careers.

In sum, we find that plant closure has unequal consequence on the examined workers' careers and lives. While the majority of the workers overcame this occupational rupture with only minor mid-term effects, for a small proportion of the workers, plant closure had a strongly harmful effect. For these individuals, hard-earned achievements and expectations in terms of career prospects and financial security have been destroyed by an exogenous event.

Contributions to the Scholarly Literature

Our descriptive findings provide knowledge about the dimension of the impact plant closure has on workers' lives. Our analysis of workers' reemployment prospects shows that over two-thirds manage to return to a job within 2 years but that a significant share of workers remained unemployed. While the average unemployment rate in Switzerland was about 4.5% at the time of our survey, the workers in our study had an unemployment risk of 17% on average. This finding clearly shows that experiencing non-self-inflicted job loss leads to disadvantages for the affected individuals in terms of unemployment risk as compared with non-displaced workers.

Moreover, our study shows that job loss goes along with wage losses and decreased job quality even for workers who return to a job. The literature on wage losses after plant closure has shown strongly diverging outcomes, in particular between the United States and Europe. While displaced workers in the United States tend to experience losses up to 25% as compared with non-displaced workers, European displaced workers are on average less negatively affected. Most European studies report wage losses between 0 and 5%. Our finding of wage losses of 4% on average (or 6% compared with the control group) is thus of about the same order of

magnitude. To our knowledge, our study is the first from Switzerland to provide an analysis of the *average* percentage of wage loss. The average percentage is the number that has been reported in most international studies on job displacement and thus allows us to compare the result from Switzerland with results from other countries. With respect to job quality, our finding contributes to the consensus in the previous literature that job loss leads to disadvantages in comparison with workers who never lost their job.

Our regression analyses contribute to the scholarly literature by providing evidence on the different degrees of vulnerability of different worker subgroups. The previous literature suggests that education is the most important determinant of displaced workers' career prospects. Our study in contrast reveals that age most crucially affects their labor market outcomes. In the context of an aging workforce, this finding may point to an increasing number of workers negatively affected in the case of plant closure. Moreover, our results shed light on the potential mechanisms underlying the older workers' vulnerability. The finding that age *per se* better predicts workers' career outcomes than – as we would expect from labor market theory – seniority in a company or education seems to indicate that signaling theory better describes the mechanisms in place than human capital theory.

Finally, our study contributes to the discussion among life course scholars of how unemployment affects other domains of life. We look into the spillover effects of job loss on workers' social life. Our research shows that job loss is not an isolated phenomenon and that it does not affect workers only in terms of their career. In contrast, it highlights that relationships with workers' spouses, families, and friends are affected – surprisingly most often in a positive way, improving these relationships. Moreover, our analysis confirms earlier findings that job loss causes strong decreases in life satisfaction. It thus confirms the hypothesis put forward by numerous scholars that job loss leaves deep and long-lasting traces in displaced workers' lives.

Contributions to the Policy Debate

Our findings provide insights that may help policy makers to take informed decisions with respect to plant closure. A possible conclusion of our study is that related policies may provide displaced workers with a support structure that offers intensive assistance to the most vulnerable. Job opportunities for workers within 10 years before the official retirement age – the category of workers that our study found to be at the highest risk of unemployment – may be facilitated through unemployment agencies. Plans targeted at this age group such as subsidies for adjustment for new jobs¹ or subsidies for self-employed workers may be promoted intensively.

¹Einarbeitungszuschüsse/Allocations d'initiation au travail.

Moreover, as older workers may not be up to date about current application procedures, they would probably benefit from special support with job applications. If workers nevertheless and despite intensive job search efforts do not manage to return to the labor force, redundancy plans providing them with indemnities constitute an important financial support. Elsewise, displaced workers who are unable to find a job may be forced to rely on welfare benefits. Such a situation may be interpreted as an outsourcing of support by the downsizing companies to the society as a whole.

Our results seem to show that returning to employment quickly after displacement enhances workers' chances of being reemployed in a high-quality job. A second characteristic of effective policies should thus be to allow workers to anticipate their job loss and search for new employment before they are without a job. A possible way of addressing this issue is to motivate closing companies to announce their closure several months before they are going to displace the workers. This procedure may be of little interest for companies who rely on their workers to finish the production of the ordered goods. However, workers may be incentivized through wage supplements to stay until the end of their contract and start their new job subsequently.

Finally, we consider that in addition to policies that cushion the hardship induced by plant closure, measures to enhance workers' resilience and capability to adjust to job changes should be promoted. Higher investments in employees' continuous training with a focus on new learning opportunities until the end of the career are probably the best way to address this challenge. As firms may have little interest in covering the costs that these measures entail (since they may even increase the likelihood that employees quit their company for a new one), a public fund for continuous training, supplied by contributions from employees and employers, may be implemented. As employees would contribute to this fund, they would equally have an interest in making use of training opportunities, maintaining a career-long professional self-development.

Structure

We set out by presenting the theoretical approach used in this study and discussing the scholarly literature on job loss and its consequences for the workers affected. The discussion is based on both research about the experience of unemployment in general and studies on plant closures more specifically. The most solid studies offer a comparison between the outcomes of workers who experience job displacement and workers who were continuously employed. This research setting offers a post hoc reconstruction of an experiment and is assumed to provide results that allow a causal interpretation of the effect of job loss on occupational trajectories as it addresses the problem of self-selection into job loss. Our first chapter is completed by the presentation of our theoretical model and the hypotheses.

The second chapter presents our tailor-made survey. We discuss biases that typically arise when observational data is collected. We describe the survey design we used to address these potential problems as well as the data collection procedure. We examine whether the measures we take to enhance data quality are successful in this endeavor. We present the construction of a control group of non-displaced workers and discuss the institutional context of the Swiss labor market.

The following chapters present the empirical results of our study. Chapter 3 examines whether workers have found a job or are still unemployed 2 years after displacement. We begin with a descriptive analysis based on the data from our own survey, add the administrative data source, and then compare the outcome with the labor market prospects of non-displaced workers. We proceed with identifying the sociodemographic and contextual factors that potentially explain the workers' reemployment prospects and finish with a discussion of our results in the context of the previous literature.

In Chap. 4, we address older workers' transition into early retirement and discuss possible drivers behind this pathway. We put emphasis on early retirement plans provided by most firms in our sample and discuss how they affect older workers' occupational transitions after plant closure.

The fifth chapter explores workers' job search strategies and the duration of unemployment for both the reemployed and the still unemployed. We examine how sociodemographic characteristics, contextual factors, and individual strategies affect the workers' success in job search. We also briefly discuss the situation of workers who quit the labor force for training, childcare, or disability.

Chapter 6 analyzes the sectors and occupations in which workers are reemployed. We begin with a descriptive analysis of the reemployment sectors before we analyze which factors favored workers' reemployment in their pre-displacement sector. We then address the question of which factors are most strongly associated with reemployment in different service sub-sectors. Finally, we analyze in which occupations workers are reemployed and try to identify which factors had an effect on change of occupation.

The seventh chapter focuses on workers' wages. We begin by comparing the overall wage distribution before and after displacement. Although this analysis provides us with important information about whether the median wage changed as a consequence of plant closure, it does not offer clear indication about the scope of wage change at the individual level. We therefore go on to assess the within-individual wage change between the pre- and post-displacement job. This outcome is then compared with the evolution of the wages of non-displaced workers in order to simulate the counterfactual outcome. Finally, we discuss possible drivers of the observed individual-level wage changes.

Chapter 8 examines workers' job quality in the new job. Finding a job does not in itself guarantee that displaced workers experience a successful occupational transition after plant closure. Indeed, workers may have accepted jobs of lower quality in order to avoid long-term unemployment. We discuss the contract types, job security, skill match, and job authority of the new jobs before we scrutinize whether the occupational transition after plant closure leads to changes in job satisfaction.

Chapter 9 looks into the question of how plant closure affects the social relationship between the displaced workers and their significant others. We begin with the discussion of the coping strategies workers developed on the household level. We then analyze how the quality of their sociability has changed. Finally, we describe the impact of plant closure on workers' well-being and discuss how changes in workers' social and occupational lives have affected their life satisfaction.

The conclusion comes back to our central research questions. We review the main findings of our study, discuss them in the context of the broader literature on the topic, and sketch out their policy implications. We briefly address the question whether our findings can be generalized and show how our results contribute to a comprehensive understanding of occupational transitions after plant closure.

An important concern of this book is to make it intelligible to a broad readership. We have therefore chosen to present as many results as possible in the form of diagrams. An innovative technique, developed by Jann (2014), allowed us to represent not only the results of descriptive analyses but also the results of regression analyses in diagram form. Using diagrams instead of tables should render the reading of our findings more intuitive and accessible to readers from outside the field. To further improve intelligibility, whenever it seemed helpful, we have provided a reading example of how to interpret the results. For most regression analyses, we computed four to six models stepwise including the variables. For reasons of simplicity, this book usually only displays the full models. Readers who wish to access the complete results can find them in the PhD thesis, defended at the University of Lausanne, that is the basis of this book (Baumann 2015).

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