

**The Erosion of Regular Work.
An Analysis of the Structural Changes
in the Swiss and German Labor Markets***

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Abstract

For the past 20 years or so, the hypothesis on the “erosion of regular work” has received a remarkable amount of attention, especially in the German literature. Usually, regular work (or standard employment) is characterized by full-time employment based on a non-temporary labor contract. Wages and salaries are standardized through collective labor agreements and include social security contributions. The hypothesis on the erosion of regular work states that standard employment is being displaced by more atypical forms of employment. Increasingly accepted forms of labor are modern, more flexible, yet more precarious and unprotected. However, whether the hypothesis of the displacement and substitution of traditional work forms is supported empirically, and if so, to what extent such labor-market transformations are taking place, has not yet been answered satisfactorily. We therefore analyze here the degree to which the different forms of employment currently exist in the Swiss and German labor markets and how labor-market structures have changed over the last few decades. Our analyses reveal that there is, in fact, a tendency to replace standard employment with other forms of labor. This is true for both countries despite the clearly more rigid labor-market regulations in Germany, which could be expected to have a decelerating effect. For men, in particular, an erosion of regular work can be observed over all age groups and not only “at the edges” of the age distribution. Furthermore the process did not start until the 1990s. In the preceding years a decline in standard employment relationships can be observed in a relative sense only. This pretended erosion is primarily due to the expansion of (female) labor market participation and with it a disproportionate growth of atypical (that is, part-time) employment.

Keywords: standard employment relationship, erosion of regular work, atypical employment, restructuring, flexibilization

Biographical notes

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The Erosion of Regular Work. An Analysis of the Structural Changes in the Swiss and German Labor Markets

1 The end of regular work?

At the end of the 1990s, the German *Kommission für Zukunftsfragen*¹ (Commission on Future Issues) drafted several succinct hypotheses that reflected its concern about dwindling standard-employment opportunities and the consequences of the decline in so-called “regular” or “normal” work, primarily of permanent full-time employment.² According to the committee’s report, dramatic changes that had already begun in the 1970s were now becoming apparent in Germany. The diagnosis and prognosis was: “At the beginning of the 1970s, ... there were still five people employed under standard conditions for every one employed under non-standard conditions. At the beginning of the 1980s, the ratio was one to four, in the middle of the 1980s it was already one to three. In 1996, it was one to two. ... If this trend continues, the ratio of standard to non-standard employment will be one-to-one within a few years” (Kommission für Zukunftsfragen, 1998, pp. 43/48, translation by the authors). Some worry that this trend will, for example, give rise to an increase in income inequality. In addition, some jobs may no longer bring in enough revenue to ensure a basic standard of living, while transfer payments in general, and retirement pensions in particular, may no longer guarantee an income above the poverty line for a growing part of the population.

The issues addressed in the report by the *Kommission für Zukunftsfragen* have been subject to intensive discussion and also much speculation over the last two decades. The basic idea is that the individualization and flexibilization, which is supposed to go along with the modernization and globalization of post-industrialized western societies, give rise to distinct changes in working life, restructurings in the labor markets and a de-standardization of life courses (e.g. Beck, [1986] 1992; Sennet, 1998). On the one hand, many studies have focused on the emergence of new and modern forms of labor that are more flexible, yet more precarious and unprotected. These studies are concerned with the rising of so-called non-standard or atypical employment forms like part-time and marginal employment, temporary and subcontracted work, new forms of self-employment, and so on (e.g. Rodgers and Rodgers, 1989; Walwei and Werner, 1995; O’Reilly, 1996; Blossfeld and Hakim, 1997; De Grip et al., 1997; Smith, 1997; Lind and Møller, 1999; Kalleberg, 2000; Giesecke and Groß, 2003). On the other hand, the ideas about the restructuring of labor markets have been discussed from the viewpoint of the corrosion of the traditional model of employment, that is, the “end”, “crisis” or “erosion of regular work”, and even the “destruction of the standard employment relationship” (e.g. Mückenberger, 1985; Zachert, 1988; Roy, 1989; Burgess and Watts, 1999; Dombois, 1999; Bernhardt and Marcotte, 2000; Wagner, 2000; Kaiser, 2001b; Appelbaum, 2002; Moulin, 2003).³

¹ The *Kommission für Zukunftsfragen* was formed by the German states of Sachsen and Bavaria in order to analyze labor-force participation, unemployment and similar issues.

² We will use terms like “standard employment”, “normal employment”, “regular work”, and “normal work” interchangeably to refer to the “traditional” model of full-time wage and salary employment based on a permanent labor contract.

³ Furthermore, there is a large body of literature on the changes in professional careers, for example Osterland (1990), Berger et al. (1993), Mutz et al. (1995), or Bernhardt et al. (2001) to name just a few, but we do not intend to address this issue here explicitly. See the contribution by Widmer et al. in this volume for a study on the pluralization of life courses.

Whereas it is beyond doubt that new forms of labor like part-time employment have gained in importance over the last decades, it cannot be taken for granted that this process automatically leads to a corrosion of the traditional forms of employment, as is often assumed. In the context of the hypothesis of the erosion of regular work it is commonly suggested that the decline in standard employment relationships results from full-time employment being replaced by atypical forms of employment to an increasing degree. The *Kommission für Zukunftsfragen* has suggested that “substitution of normal employment conditions with non-normal employment conditions” is occurring (1998, p. 23, translation by the authors). However, it is also conceivable that, despite a decline in regular work in a relative sense, the absolute number of standard positions may have remained constant or even increased. This would, for example, be the case if part-time work, marginal employment, and other “atypical” forms of work were growing disproportionately, but not at the expense of full-time jobs. In the first case, the erosion of regular work occurs through substitution, in the second case through the higher growth rate of non-standard forms of labor. The relative decline in “normal” positions can therefore be explained by two hypotheses: (1) the substitution and displacement hypothesis, which states that there are fewer regular jobs in an absolute sense and (2) the hypothesis of disproportionate growth of atypical employment, which states that there are fewer regular jobs only in a relative sense. The question of which process is actually taking place on the labor market must be answered empirically.

Considerable criticism of the hypothesis regarding the extensive erosion of regular work has been voiced from an empirical standpoint. For example, Hoffman and Walwei (1998) analyzed changing employment patterns using data from the German microcensuses. While they did identify a decline in the proportion of workers employed full-time on a permanent basis, particularly in the 1990s, they found that this process was taking place only relatively slowly. This finding stands in contrast to the rapid rate predicted by analyses carried out by the *Zukunftskommission* and other proponents of the erosion hypothesis (for example, Beck, [1986] 1992; also see the review provided by Kress, 1998). The hypothesis on the substitution and displacement of standard employment has also been subject to critique. Analyses by the German Institute for Economic Research, for example, also indicate that regular work is on the decline (Wagner, 1998; Kaiser, 2001a; for similar results also see Oschmiansky and Schmid, 2000). The primary reason provided by the authors was, however, that the labor force participation rate has grown overall and formerly unemployed people have become employed part-time to an increasing degree. In particular, female labor force participation increased and with it the number of part-time jobs. This trend alone would indicate a relative reduction in regular positions and give support to Hypothesis 1 above rather than Hypothesis 2. However, another factor that may play a role (according to Wagner) is the differential development that takes place at the beginning and the end of an occupational career. If more young people delay their entry into the labor market in favor of education and older people retire earlier, shrinkage in full-time employment should, *ceteris paribus*, be a consequence (Wagner, 1998). In evaluating this claim, cohort size must also be taken into account. It may well be that full-time employment is increasingly being replaced by education among young adults. However, the proportion of the population as a whole formed by younger cohorts is declining for demographic reasons. To exclude the above effects, Wagner (1998) suggests that the developments in full-time employment be studied only in the 25-55 year-old demographic group.

In this article, we will address the issue of the decline in regular full-time employment in Switzerland and Germany in detail. On the one hand, we are interested in the differences in the speed of this development in the two countries. On the other hand, we are also interested

in whether the labor-market developments in the two countries better support the hypothesis of the mere expansion of “atypical” forms of work or that of the displacement of standard employment. Furthermore, the differential employment patterns for men and women and the age dependence of employment behavior suggest a separate examination of the development in the labor market for men and women as well as for the various age groups.

Comparing the two countries can also contribute to a better understanding of the development of labor-market conditions. More concretely, a comparative examination can provide some information on whether, and to what extent, the flexibility of labor markets accelerates structural changes in those markets. This is not necessarily the case: Flexibility or rigidity only means greater or lesser freedom in specifying conditions of employment. To what extent these liberties are exploited depends on both the interests and the power of the contractual partners. The introduction of new organizational structures (cost saving through outsourcing, concentration on the core business, and so forth) and the trend toward cutting labor costs may reflect the employers’ interest in reducing regular work. However, some kinds of employees may also actually prefer something less than full-time employment. For example, the demand for part-time jobs has grown particularly among women with children (see Kress, 1998, for the probable causes of the erosion of regular work). Clearly, the interests of some employers and employee groups will have better chances of being realized if the contractual liberty of the parties on the labor market is less strictly regulated by the government and the unions. According to this view, rigid labor markets slow down the trend toward the erosion of regular work. In flexible labor markets, in contrast, the change in labor relations will proceed more readily.

The comparison of the developments in the Swiss and German labor markets is a touchstone for the hypothesis on the effect of labor-market flexibility. Although very similar in their level of societal development and modernization, the labor-market regulations of the two neighboring countries differ in a significant way. These differences are a part of a general set of disparities in labor-market conditions among industrialized nations: According to a report by the OECD (1999), labor markets are the most restrictive in southern Europe, France, and Germany. The least restrictive are in English-speaking countries: New Zealand, Canada, Great Britain, and the USA. According to the same report, Switzerland’s policies lie close to the Anglo-Saxon end of the flexibility spectrum. The OECD judged the flexibility of the various labor markets on the basis of three indicators: “strictness of employment protection for regular employment” (for example, protection against dismissal), “regulation of temporary employment” (fixed-term contracts, temporary work agencies) and “regulation of collective dismissal” (OECD, 1999). In comparison with Germany, the Swiss labor market is clearly more flexible with regard to the first two indicators. Only with respect to collective dismissals are the constraints more rigid in Switzerland than in Germany. All things considered, the Swiss labor market holds one of the highest positions in the ranking of 30 OECD nations according to their labor-market flexibility (depending on the measurement method used, Switzerland ranks either sixth or seventh). Further, the Swiss held this position consistently throughout the 1980s and the 1990s. Germany, in contrast, was at Place 14 in the late 1980s, but has since dropped down to Place 18 or 20, depending on the measurement procedure used. One may well ask, therefore, whether the very different labor-market regulation profiles of the two countries also affect the speed and extent of structural changes in the labor market.

2 Development of regular work in Switzerland

How one studies development and the prevalence of regular work depends mostly on the definition of regular work, the inclusion of certain age groups in the sample being used and—as is usual for proportions—on how one defines the base. In keeping with the practices used in previous literature (Kress, 1998; Hoffmann und Walwei, 1998; Kommission für Zukunftsfragen, 1998; Kalleberg et al., 2000) we consider regular work to be (a) wage and salary employment that is (b) based on a non-temporary labor contract, (c) pursued on a full-time basis, and (d) the earnings from which are subject to social insurance deductions.⁴ Our data source is the “Swiss Labour Force Survey” (SLFS), which has been conducted annually by the Swiss Federal Statistical Office since 1991 (see Bundesamt für Statistik, 1996). The SLFS data are collected by computer-aided telephone interview for a random sample of 16,000 to 18,000 subjects (with an increase to a sample size of 41,000 in 2002). The average response rate in the SLFS, which amounts to 70 percent, is considered relatively high.⁵ We apply case weights (neglecting post-stratification) in our analysis to account for varying sampling probabilities (cf. Comment et al., 1996). Because the SLFS data sets provide information only about developments since the beginning of the 1990s, we also use data collected in the Swiss censuses as from 1970.

To determine the proportion of standard positions as a fraction of the total number of positions, we employ a hierarchical employment classification that more or less reflects the definition of regular work given above. First, the population is divided into those people who are active in the labor market (the labor force, i.e. both employed and unemployed persons) and those who are not participating in the labor market (non-employed). The employed are separated into the self-employed, trainees (apprentices) and wage and salary workers; those in the latter group are, in turn, assigned to a category according to the rate of their labor market participation (i.e. full-time, part-time, or marginal). Finally, the standard-labor category comprises those wage and salary workers employed full-time with a non-temporary labor contract. There is no need for further differentiation according to whether or not earnings are subject to social insurance deductions because the deductions are mandatory for these workers in Switzerland.⁶ In the SLFS, respondents are considered active in the labor market if their

⁴ Note that fixed working times and/or the spatial division of the private household and the workplace are sometimes considered as further characteristics of standard employment (e.g. Beck, [1986] 1992; Seifert, 1993).

⁵ It must be pointed out, though, that the 70 percent response rate refers only to the yearly base sample of respondents who are being interviewed for the first time. Because the SLFS employs a rotating panel (each year, one fifth of the sample is replaced by new subjects, i.e. each respondent stays in the panel for five years), the impression given by this figure is actually too optimistic. As a matter of fact, the response rate drops down to approximately 55 percent if the yearly drop-out rates for the panel cohorts are fully accounted for (year 2002 is an exception, since it had a response rate of approximately 65 percent because of the large increase in the size of the sample). It should also be mentioned that proxy interviews are possible in the SLFS if a targeted person cannot be interviewed due to old age or illness.

⁶ Classifying all the respondents was somewhat problematic, given the incomplete records for some of the respondents. Simply excluding cases with missing information could result in serious distortions because missing values can occur at different branching points of the classification tree. Assume, for instance, that all full-time workers with missing information about the duration of their labor contracts are excluded. The number of full-time wage and salary workers as a fraction of all workers would then be underestimated systematically, since workers like the self-employed and non-employed would not be excluded under this regime, as their records cannot contain missing values for the fixed-term contracts variable. It is therefore not possible to represent the distribution of labor relations using a single classification variable. We solve the problem through the use of indicator variables that reflect the value of each level of the classification variable. The distribution of employment forms can then be estimated consistently by multiplying the means of different indicator variables, despite the fact that the missing values may be distributed among the levels of the classification tree in a systematic way. This solution rests on the assumption that missing information is unsystematically distributed

workload is at least one hour a week (this amount also includes unpaid work for a family business). The distinction between the self-employed and wage and salary workers, as well as the distinction between full-time and part-time workers, is based largely on the respondents' self-assessment.

We start with the examination of the population of working age (ages 16 to 64). Information on the distribution of forms of employment in this population can be found in Table 1 (in the appendix), which provides details of the various proportions for the period from 1991 to 2003. Let us first look at the share of wage and salary employment formed by regular work, which can be derived by simple transformation of the values in the table (Figure 1). Among men, this proportion is 90.7 percent in 1991, 88.0 percent in 1992 and 86.4 percent in 2003. Among women, the proportion is 44.4 percent in 1991, 40.8 percent in 1992, and 30.8 percent in 2003. The rather substantial change between 1991 and 1992 might possibly be a statistical artifact due to teething troubles in the first wave of the SLFS. We therefore choose the year 1992 as the starting point. In 1992, it is evident that regular work, with a share of almost 90 percent, is clearly the dominant work form among male wage and salary workers. Further, the proportion remains almost constant throughout the 1990s if the year 1992 is chosen as the starting point. These findings are in accordance with the results of Widmer, Kellerhals and Levy (in this volume) who reject the hypothesis of extreme individualization in Switzerland and report that the life courses of 85 percent of the men follow very homogeneous trajectories characterized by professional full-time activity. Among women, on the other hand, the share of those doing regular work—again with reference to all female wage and salary workers—has markedly decreased. Since 1992, the proportion of full-time female employees has been overtaken by the proportion of part-time employees. “Regular work” for women seems to be part-time work (also see Baumgartner 2003).

However, the restriction of the analysis to the wage and salary workers can be misleading if displacements have occurred between this group and the other categories. In order to paint a more differentiated picture, we also analyze the population shares listed in Appendix Table 1, which are based on the entire population of the 16-to-64 year-old age group. Because it is clear that the changes in employment forms are different for women and men, we focus on the sex-specific figures right away. We can now find a decrease in regular work both for women and men: these decreases are five and eight percent points, respectively, between 1992 and 2003. If the 1991 values are instead used as the starting point, the decrease is even more pronounced: seven percent for women and more than ten percent for men. These values make it clear that the decline in regular work can no longer be explained solely by a trend toward part-time work among women. Instead, a decrease in regular work can be observed both for women and men.

[Figure 1 about here.]

How can this decrease in regular work be explained? Obviously, not by the growth in fixed-term employment: Entirely at odds with the expectations of many, the relatively small share of temporary jobs has even slightly regressed. However, among men the proportion of the self-employed, part-time workers and the non-employed has grown. Among women, it is mostly part-time employment that has gained from an expansion of the female labor-force participation rate, but there has also been a shift away from full-time work.

among the different categories at a given level of the tree. The same procedure was applied in the analyses of the Swiss censuses and the German Socio-Economic Panel (see below).

Now, let us extend the time line from 1991 further into the past. The Swiss census data record job characteristics with categories and methods different from those of the SLFS, so we cannot compare the absolute percentages of labor forms directly. For instance, those who work one to five hours a week are considered non-employed by some of the Swiss censuses while the SLFS considers those same people to be a part of the working population. For the sake of consistency we treated these people as non-employed for all waves of the Swiss census. Furthermore, we cannot account for temporary labor contracts separately with this data. The basic trends are, however, visible in the census data. In the time from 1970 to 2000, a decrease in standard employment can be observed for men, from 73.2 percent in 1970 down to 59.5 percent in 2000. For women, the rate fell from 30.4 percent in 1970 to 27.0 percent in 2000 (see Figure 2 and Table 2 in the appendix). The inclusion of this data also shows that the erosion in regular work occurred primarily in the 1990s.

[Figure 2 about here.]

The census data can be broken down into single-year age groups and, thus, permit a detailed analysis of the distribution of forms of employment according to age. Figure 3 shows the development of the age-specific rates of standard employment over the four waves of the Swiss census (each curve represents one wave and displays the proportions of regular work within each single-year age group). Here it can be seen that the age-dependent curve of regular work decreased for men across all working-age groups particularly in the 1990s. For women, the pattern is different. For the 2000 census, we can observe a shift to the right and downward in the first part of the curve for women up to an age around the mid-thirties. This means that the percentage of regular work decreased in the 1990s for younger women, whereas it increased for women between their mid-twenties and mid-thirties. Both men and women are less likely to be employed in full-time jobs at a young age and towards the end of their occupational careers. The reasons are obvious: increased participation in education among the younger and earlier retirement among the older.

[Figure 3 about here.]

These results are supported by an analysis of the SLFS data. These data also indicate that regular work has sharply declined for the 16-to-24 year-old group. The proportion dropped from 34.6 percent in 1992 down to 20.0 percent in 2003. This development, which mostly reflects an increase in young people doing an apprenticeship, can be observed for both men and women. However, because the relative size of this age group fell during the same period, the proportion of apprentices has remained constant in the overall population (see Table 1 in the appendix). In the 55-to-65 year-old age groups, on the other hand, the proportion of regular work has declined for men only. The reduction of about 10 percentage points is due partially to higher self-employment in the group, but also to earlier retirement.

Regardless of these changes in the younger and older age groups, the rate of full-time wage and salary work has also decreased for men in the 25-to-55 year-old category, from 77.0 percent in the census of 1990 to 68.3 percent in the census of 2000. According to the results of the Swiss census, the decline in regular work can, therefore, not be attributed exclusively to changes “at the edges” (Wagner, 1998) of the age distribution, although the extension of the length of education for young adults and earlier retirement for older adults have had some effect on the proportion of regular work.

Again, the results are confirmed by the SLFS data. If the young and old age groups are excluded, that is, if only developments in the population of the 25-to-55 year-olds are analyzed, the erosion of regular work observed may be less clear than in the whole sample, but the decline is still substantial. For men, the proportions are 72.5 percent in 1992 (74.6 in the year 1991) versus 66.1 percent in 2003. For women the proportion drops slightly from 21.3 percent in 1992 (23.8 percent in 1991) to 19.1 percent in 2003. Compared to the results from the Swiss census, however, the erosion of regular work found in the SLFS data for the period from 1991 or 1992 to 2000 is surprisingly weak. Although the general patterns are basically the same—a decline in standard employment for men, stability for women—the trend toward the erosion of male regular work is much more pronounced in the census data than in the SLFS data. The discrepancy between the results of the two data sources is probably due to a large extent to differences in the measurement and operationalization of the worker types. In particular, employees with fixed-term contracts cannot be accounted for separately with the census data. This seems to inflate the observed trend because the proportion of temporarily employed full-time workers declined for men in the period between 1990 and 2000. Thus, the results from the Swiss census probably overestimate the erosion of male regular work to some extent.

3 Development of regular work in Germany

In order to analyze the change in regular work in Germany, we employ data from the German Socio-Economic Panel (SOEP; cf. SOEP Group, 2001). The SOEP data have been collected since 1984 using an initial random sample of 6,000 private households. All members of these households older than 16 years of age are interviewed on a yearly basis (which resulted in an initial yearly total of approximately 12,000 individual records).⁷ We use the weighted data and restrict our analyses to the old *Bundeslaender* (West Germany) for two reasons: First, no suitable data material is available on East Germany before 1990, and second, East Germany underwent a radical transition from a planned to a market economy in the 1990s and thus cannot be directly compared to Switzerland or West Germany.

In our analyses for West Germany we distinguish again between those in the labor force (the employed and the unemployed) and those not in the labor force, and separate the employed into the self-employed, trainees and wage and salary workers. A further differentiation separates people employed full-time, part-time and marginally (based on self-assessment) and takes into account the length of the work contract. Here, too, we define regular work as permanent full-time wage and salary employment (as in the analyses for Switzerland, it does not seem to be necessary to perform a further differentiation with respect to social security deductions). In the SOEP, the classification into employed and non-employed is based primarily on the respondents' self-assessment. However, in order to preserve parity with the Swiss analysis, people who characterized themselves as non-employed are considered employed for the purposes of our analysis if they reported holding down a regular sideline job (with a workload of at least one hour a week) later on in the questionnaire.

To begin with, we look again at the sample of the population aged 16 to 64. In the time span between 1990 and 2002, the proportion of regular work diminished by 5.5 percentage points, from 60.8 to 55.3 percent for men in West Germany (see Figure 4 or Table 3 in the appendix).

⁷ Over the years, the SOEP's initial household sample has been supplemented or increased by additional samples several times. In 1990, for instance, an East German sample of 2,000 households was added. In 2000, the SOEP sample was enhanced by another 6,000 households.

For women, the share of regular work remained roughly at the same level throughout the 1990s (1990: 27.0 percent, 2002: 25.9 percent).

In contrast to Hoffmann and Walwei (1998), we thus find a quite substantial reduction in the male rate of regular work. This discrepancy may be partially explained by the fact that Hoffmann and Walwei conducted their analyses with different data (the German microcensus) for a different timeframe (1985 to 1995). They report a reduction in regular work for men of only one percentage point (from 66 percent in 1985 to 65 percent in 1995; see Table 1 on p. 416 and Figure 7 on p. 421). However, there is actually substantial agreement between our analyses of the SOEP data and their results, since the SOEP data do not provide much evidence for an erosion in regular work for men between 1985 and 1995 either. The percentages reported by Hoffman and Walwei are larger than those in our study because they are based on the total of employees only. If the SOEP results are translated to proportions based on employees, tendencies equivalent to the ones found by Hoffmann and Walwei are obtained for the 1985/1995 comparison: A slight decrease in regular work for men and a somewhat greater decline for women. The reason for the different results for the 1985–1995 timeframe compared to the analyses of the years 1985 to 2002 is the inverted U-shaped development of the rate of regular work, which even increased up to the end of the 1980s. A clear decrease cannot be observed until the 1990s (see Figure 4; Table 3 in the appendix).

How can the erosion of regular work in Germany be explained? As in Switzerland, the decline cannot be attributed to an increase in temporary jobs. In Germany as well as in Switzerland, and again confounding expectations, we found tendencies toward a dip in temporary employment. The shrinkage of permanent full-time work for men is instead due to a shift toward more part-time work, more marginal employment, more self-employment, more unemployment and more non-employment. Each of these domains accounts for roughly one to two percentage points of the reduction in regular work for men in the 1990s. In contrast, overall female labor force participation has grown (a reduction in non-employment can be observed from 37.9 percent in 1990 to 32.2 percent in 2002). For women, the proportion of part-time work, marginal employment, and unemployment has been on the increase (Table 3).

[Figure 4 about here.]

To exclude the effect of changes at the beginning and end of the occupational career, we also perform the same analysis for the 25-to-55 year-old age group in West Germany. Here again, we find a clear decrease in regular work for men of 5.4 percentage points, from 75.8 percent in 1990 to 70.4 percent in 2002. This shift occurred mainly during the first half of the 1990s. In contrast, regular work even increased slightly for women in this age group, from 29.9 to 30.5 percent, as the labor force participation rate for women aged 25 to 55 grew markedly, by 8.7 percentage points after 1990 and 16.1 percentage points after 1985.

We are therefore unable to confirm the tendencies and hypotheses reported by Hoffmann and Walwei (1998), Wagner (1998) or Kaiser (2001a). For the 1990s, quite a substantial erosion of regular work can be observed. It is true that labor force participation, part-time and marginal employment for women have grown in this time period. It is also true that a decrease in labor-force participation may be observed for both young men and women (aged 16 to 24) and older men (aged 55 to 64). However, these three tendencies—more education for younger people, an earlier retirement age for older workers, and more part-time work for women—can by no means explain the decrease in male regular work. This is so because we also find a

reduction in regular work of approximately 5 percentage points for men aged 25 to 55 in the period 1990 through 2002.

4 Summary: Parallelism instead of special paths

A comparison of labor-market activity in Switzerland and Germany in the 1990s clearly shows that developments in the two countries are more alike than different. In both countries, female labor-force participation is on the rise while male labor-force participation is falling slightly. The reasons for the declining employment rate of men are, among others, a longer period of education and an earlier retirement age. In both countries the proportion of part-time jobs has grown for men and women. However, female part-time employment is both higher than male part-time employment and has grown more markedly. In contrast to what many have suggested, the share of temporary full-time contracts has not grown in either (West) Germany or Switzerland.

Permanent full-time work is still the bread and butter of men's labor: It remains the most common kind of labor for men. Nevertheless, the proportion of male work that is regular is on the decline in both countries. This trend can be accounted for by shifts toward more part-time work, more self-employment, higher unemployment and lower male labor-force participation. The process, if active before at all, gained in intensity in Switzerland and Germany primarily in the 1990s. According to the Swiss census, a decline in the share of regular work of 8.9 percentage points can be observed in Switzerland for men aged 25 to 55 between 1990 and 2000 (or, according to the SLFS data, 5.5 percentage points between 1991 and 2000, or 3.0 percentage points between 1992 and 2000). Translated into population figures this means that probably around 100,000 more men in that age segment would be employed in a permanent full-time job today, if the rate of regular work was still at the 1990 level. In Germany, the decline amounts to 4.9 percentage points. Here, we are talking about a "gap" of around 700,000 regular jobs for men in the 25-to-55 year-old age group. In contrast, the aggregated quotas for women are not very informative because their labor-force participation pattern over the life and family cycle has changed significantly in the last two decades. Only an examination of age-dependent rates of regular work (see the curves plotted with the Swiss census data in Figure 3) would allow us to draw any meaningful conclusions about the rate of regular work for women. Here, changes in the aggregated measures result from the effects of to some extent opposing forces. On the one hand, the proportion of regular work declined for younger women in the 1990s. On the other hand, there was an upswing in the share of regular work for women in their mid-twenties to mid-thirties. The same is true in Germany: full-time employment has increased for women who have completed (a perhaps longer) period of education.

The labor force participation rate, that is, the proportion of people from the working age population who are either actively working or actively seeking work, gained one to two percentage points in Germany and Switzerland in the 1990s. This increase was due to growing female participation in the work force and mostly represented an increase in part-time employment for women; it does not, however, explain the decrease in the rate of regular work for men. A decrease in regular work can also be observed in separate analyses for men in the 16-to-64 and 25-to-55 year-old age groups. Men, in fact, substituted other kinds of work for full-time wage and salary employment during the 1990s.⁸

⁸ It must be noted that not every substitution necessarily has negative consequences. If, for instance, an employee becomes self-employed and creates an additional part-time job in his new small-scale firm, statistically this

Thus, at least for the 1990s, it is the substitution and displacement hypothesis (Hypothesis 1; see the introduction) that is supported by our results. The attendant process may be described as follows: Over the last several decades there has been a distinct growth in the female labor-market participation rate. However, the proportion of women employed in regular jobs has remained more or less stable in an absolute sense (i.e. as a fraction of the total female population of working age). This means that the expansion in female labor-force participation occurred primarily via additional part-time jobs. Until the end of the 1980s, the proportion of men doing regular work also remained stable. Thus, the “erosion of regular work” occurred only in a relative sense (Hypothesis 2) in that period. In the 1990s, however, not only did female part-time work continue to increase, but the male rate of regular work started to decline, thus lending support to Hypothesis 1, which assumes “real” erosion. Hence, one of the main findings of this study is a clear shift from regular to non-regular work occurring in both countries in the 1990s, one that does not, however, involve a shift to more temporary full-time work. And, despite this trend of erosion of standard work contracts, regular work is still the dominant type of work among the male labor force.

Finally, what about the effect of the different labor-market regulations in the two countries? It is striking that, despite the different labor-market regimes, the development of different dimensions of employment and the decrease in regular work in particular have occurred largely in parallel in the two neighboring countries. Of course, the comparison we have performed here does not provide any clear insight into the causal relationships at play (as would a controlled experiment). Also, Germany and Switzerland differ not only with respect to the flexibility of their labor markets. For instance, the unemployment rate is considerably higher in Germany than in Switzerland. Unemployment could be a “push factor”, one which exerts its influence on the erosion of regular work according to the mechanism postulated by Hoffman and Walwei (1998). Thus, one could argue that the flexible labor-market regulations in Switzerland have promoted the erosion of regular work there, whereas the erosion in Germany has occurred despite its more rigid labor market due to the high unemployment rates. This may well be, but it is a claim that cannot be studied with the data at hand. One can also speculate on a variety of other mechanisms. One mechanism may be that, despite its higher degree of rigidity in general, German labor market law provides for one important exception. There is a part-time, low-income sector in Germany that is at least partially exempted from paying taxes and social security. The increasing number of jobs in this segment has also contributed to the growth of atypical work in Germany.

Apparently, the level of labor-market flexibility was not the only factor affecting the erosion of regular work in Germany and in Switzerland in the 1990s. Going a step farther, it may well be that overall labor-market flexibility has little or no effect on the extent of the shift from regular to non-regular work (Kress, 1998). There is also a thesis that, on the contrary, labor-market rigidity promotes atypical work relations. The reason is that employers in rigid labor markets try to evade strict regulation (and high labor costs) by shifting their employment structure to a work-force with a smaller proportion of regular work contracts (Appelbaum, 2002).

In both countries, there are probably forces driving the erosion of regular work on both the demand side and on the supply side of the labor market. For instance, higher capital mobility has increased the employers’ bargaining power. Reorganization, cost-cutting, downsizing of

change will cost a regular position. The same is true for a full-time job that is divided into two part-time jobs to enable job sharing. In both cases, welfare may be increased despite the loss of a regular work job.

the workforce, and outsourcing of activities not defined as the company's core business has occurred in both countries. However, we should not confine our attention exclusively to employers' strategies. It might well be the case that part of the change came about due to changing preferences on the supply-side of the labor market.

Of course, many atypical work relations belong to the category of poorly-paid and insecure jobs, and many less qualified workers have no alternative other than to apply for "bad" jobs. As Kalleberg et al. (2000) demonstrate for the United States, non-standard work is indeed correlated with unfavorable job characteristics. However, this is only a correlation and not all part-time jobs are insecure or yield earnings below the average.

That women's increasing labor-force participation was accompanied by an increase in the number of part-time occupations clearly illustrates that the changes towards more atypical employment may also be supply-driven. Labor-force participation patterns among married women have changed dramatically in the past several decades. Although they have maintained the main responsibility for household work in most cases, many married women have started to seek work opportunities outside the family. In order to successfully manage both family responsibilities and paid labor, a large number of women do not apply for full-time employment. Possibly, a small fraction of male workers with family duties also prefers working fewer hours. Employers have met these expectations by raising the proportion of part-time jobs, a process that has taken place irrespective of the degree of labor market flexibility.

5 References

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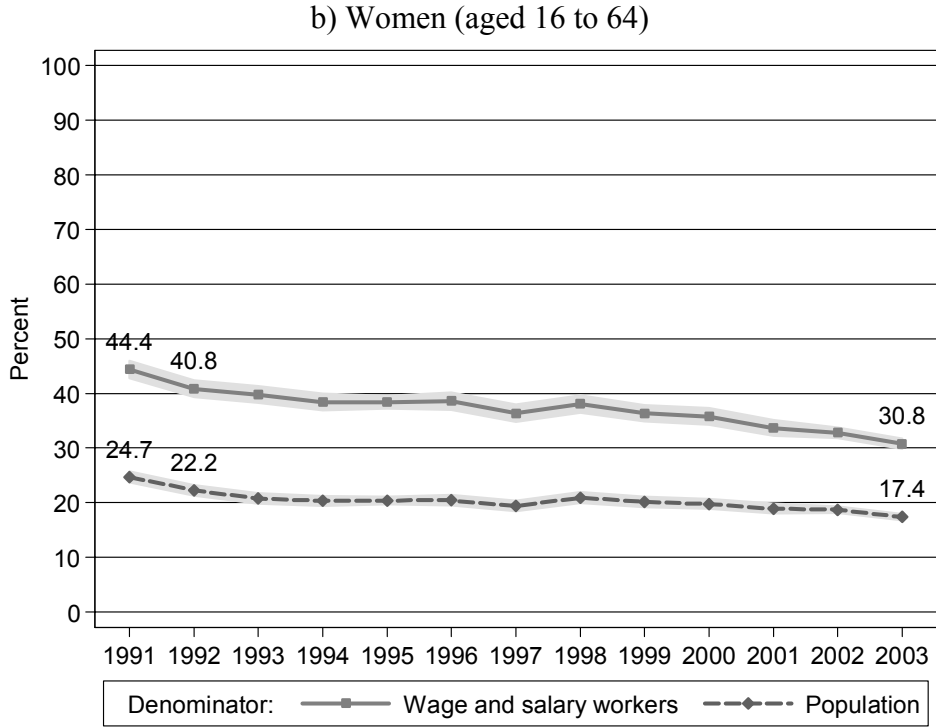
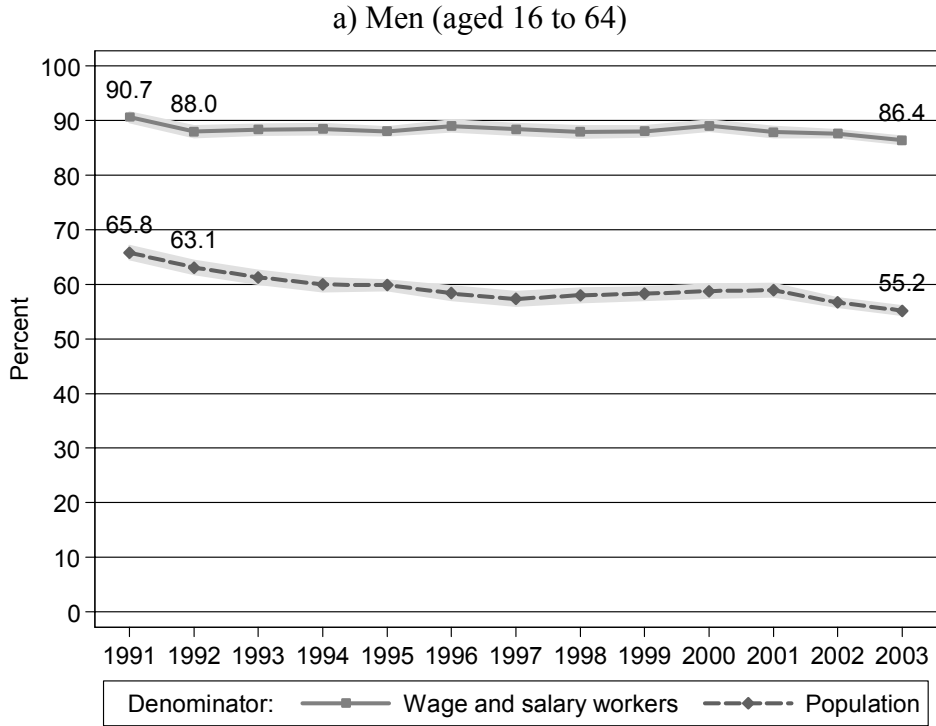
6 Appendix

[Table 1]

[Table 2]

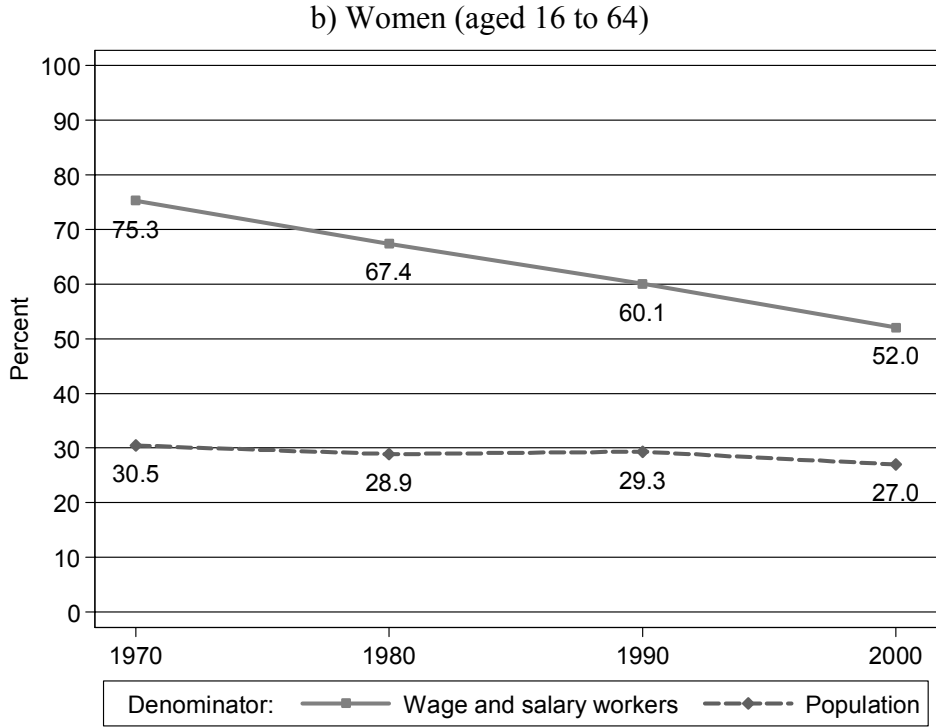
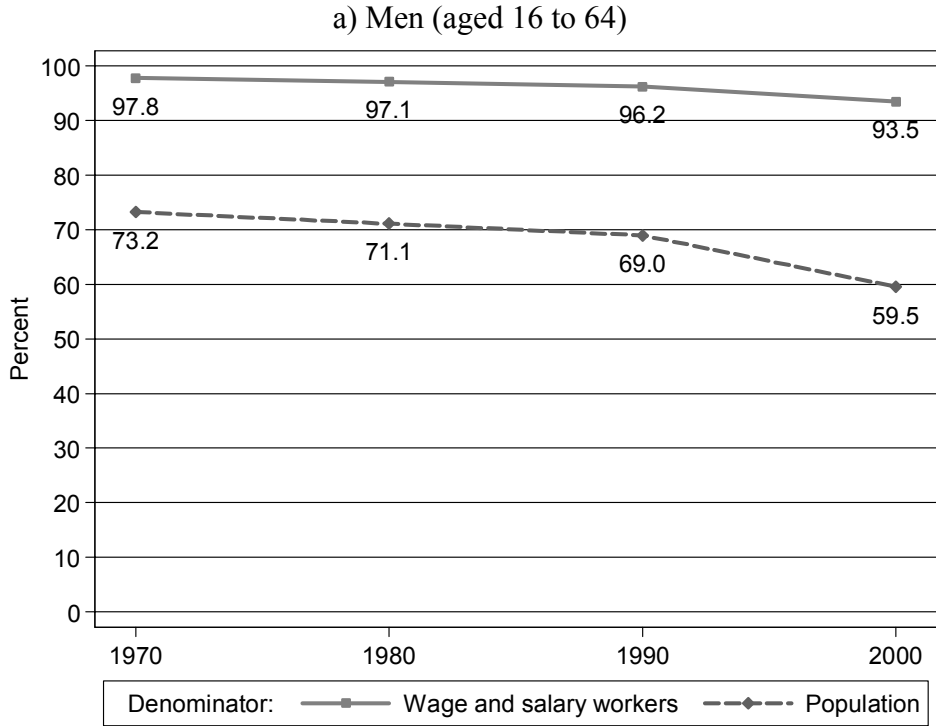
[Table 3]

Figure 1: Regular Work in Switzerland from 1991 to 2003



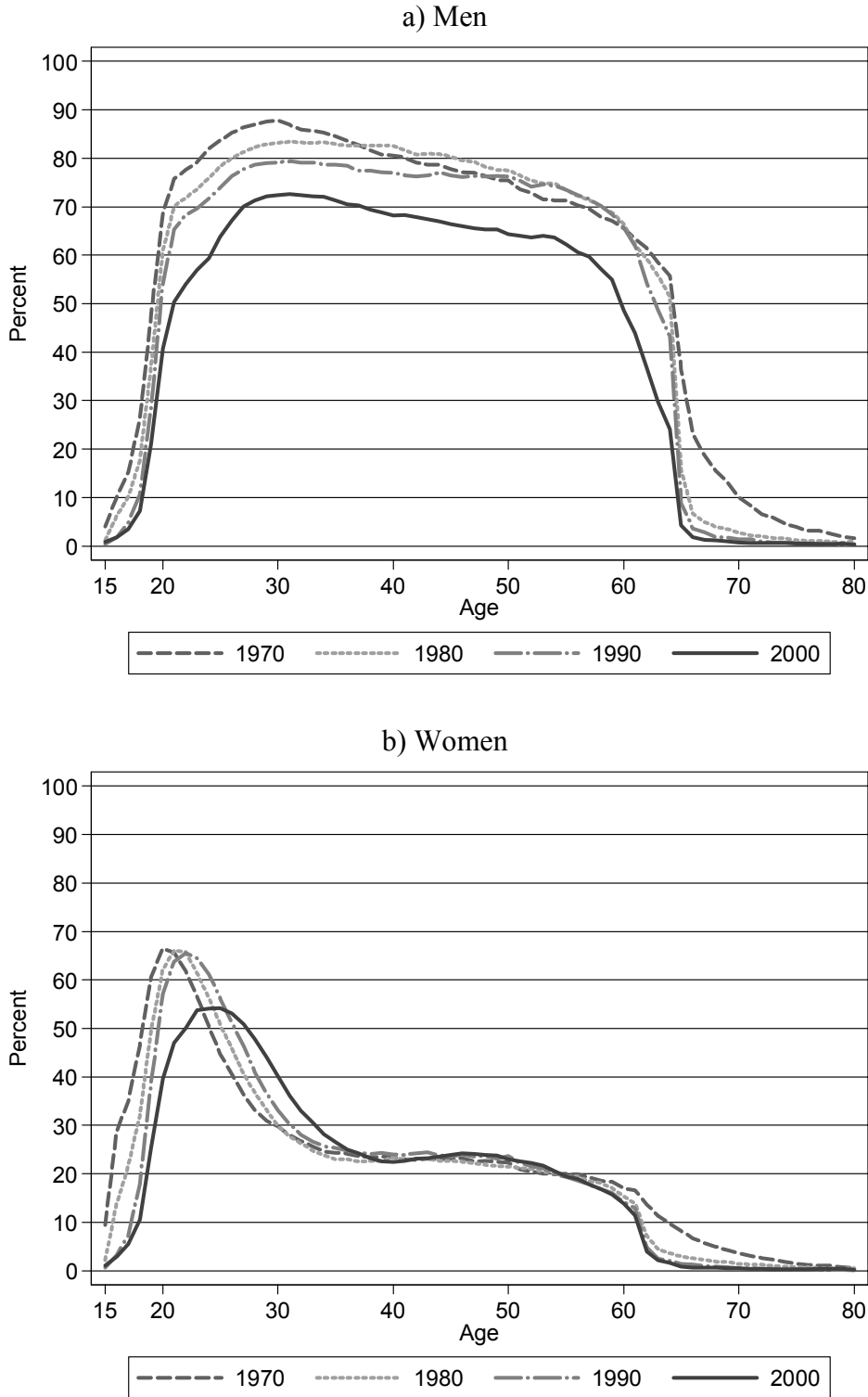
Source: Swiss Federal Statistical Office, Swiss Labour Force Survey (SLFS); Calculation: The number of wage and salary workers employed non-temporarily on a full-time basis divided by the number of wage and salary workers in total or the total population aged 16 to 64; Gray area: Approximate 95% confidence interval.

Figure 2: Regular Work in Switzerland from 1970 to 2000



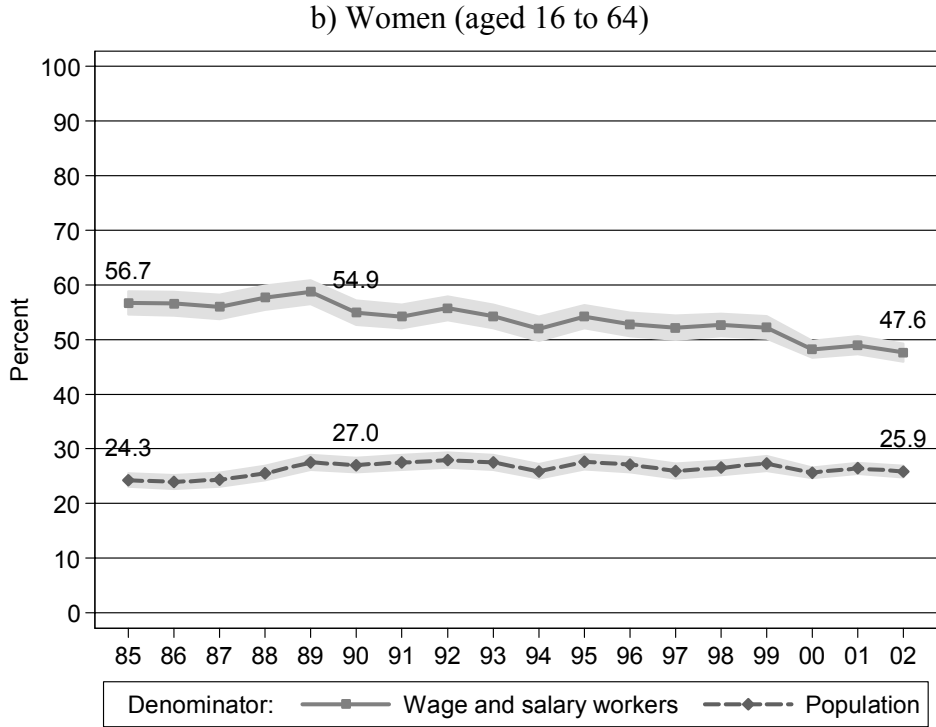
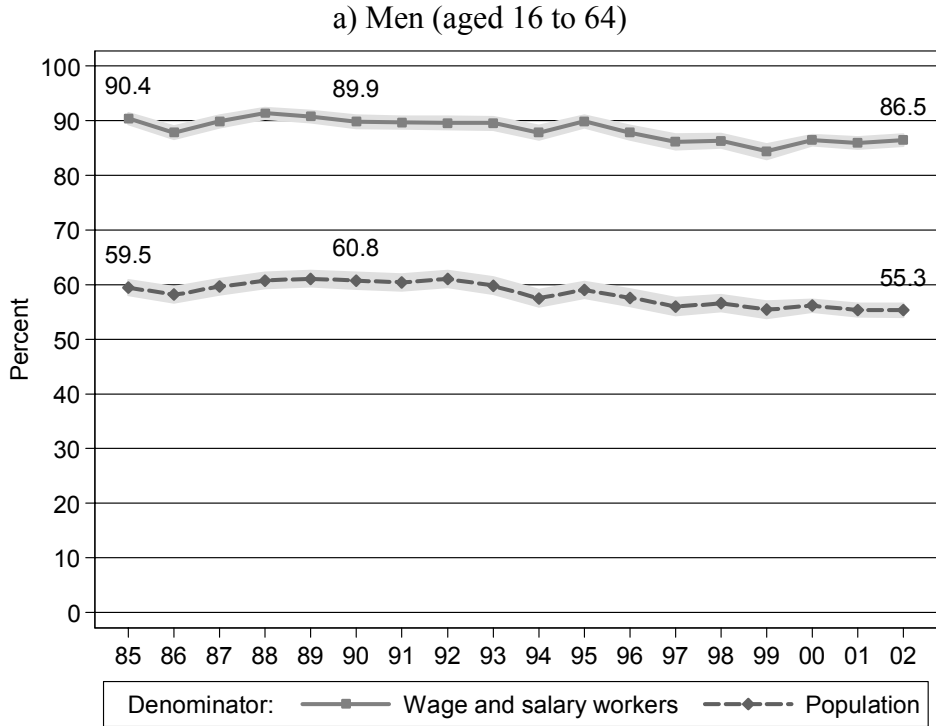
Source: Swiss Federal Statistical Office, harmonized personal records from the 1970, 1980, 1990, and 2000 Swiss Censuses; Calculation: The number of wage and salary workers employed on a full-time basis divided by the number of wage and salary workers in total or the total population aged 16 to 64.

Figure 3: Age-dependent rate of regular work in Switzerland from 1970 to 2000



Source: Swiss Federal Statistical Office, harmonized personal records from the 1970, 1980, 1990, and 2000 Swiss Censuses; Calculation: The number of wage and salary workers employed on a full-time basis divided by the total population for each single-year age group.

Figure 4: Regular Work in Germany from 1985 to 2002 (West German states only)



Source: German Institute for Economic Research (DIW), German Socio-Economic Panel (SOEP); Calculation: The number of wage and salary workers employed non-temporarily on a full-time basis divided by the number of wage and salary workers in total or the total population aged 16 to 64; Gray area: Approximate 95% confidence interval.

Table 1. Distribution of employment forms in Switzerland from 1991 to 2003

Year	Labor force								Non- em- ployed	Total	Popula- tion	No. of cases
	Wage and salary workers				Self-employed		Train- ees	Unem- ployed				
	Full-time		Part- time 15+ ^a	Part- time 1-14 ^b	Full- time	Part- time						
	Perma- nent	Tempo- rary										
<i>Men aged 16 to 64</i>												
1991	65.80	2.85	2.76	1.17	12.78	0.79	4.50	1.06	8.29	100.00	2263560	5910
1992	63.09	4.47	2.83	1.30	12.39	0.87	5.13	1.91	8.01	100.00	2295923	6260
1993	61.30	3.60	3.08	1.41	13.36	0.80	5.19	2.65	8.61	100.00	2314825	6638
1994	59.96	3.60	3.03	1.21	12.80	1.13	5.28	2.96	10.04	100.00	2329325	6619
1995	59.85	3.50	3.44	1.17	13.84	1.17	5.03	2.35	9.64	100.00	2340825	11791
1996	58.36	2.73	3.13	1.36	15.44	1.20	5.43	2.70	9.66	100.00	2341741	5937
1997	57.32	2.42	3.81	1.28	15.42	1.31	5.23	3.26	9.95	100.00	2359195	6049
1998	58.00	2.70	3.84	1.41	15.50	1.31	5.31	2.54	9.39	100.00	2364105	6115
1999	58.32	2.62	3.96	1.33	15.53	1.62	5.04	2.15	9.43	100.00	2364677	6539
2000	58.74	1.77	3.95	1.50	15.83	1.69	5.14	1.67	9.72	100.00	2371852	6453
2001	58.94	1.88	4.48	1.74	15.01	1.74	5.17	1.33	9.71	100.00	2380563	6688
2002	56.68	2.30	4.27	1.44	14.92	1.77	6.07	2.08	10.47	100.00	2405042	14531
2003	55.19	2.34	4.82	1.52	14.86	1.65	5.92	2.71	10.99	100.00	2433196	14722
<i>Women aged 16 to 64</i>												
1991	24.70	2.09	17.38	11.44	4.44	4.63	2.40	1.75	31.16	100.00	2265638	6902
1992	22.25	2.16	18.21	11.84	3.87	6.04	3.00	2.37	30.26	100.00	2286130	7238
1993	20.76	1.40	18.38	11.64	4.36	6.37	3.88	3.05	30.17	100.00	2299081	7665
1994	20.31	1.58	19.03	11.96	3.72	6.16	2.99	2.88	31.35	100.00	2329387	7616
1995	20.40	1.86	19.45	11.39	3.95	5.59	3.24	2.54	31.57	100.00	2333265	13103
1996	20.43	1.42	20.32	10.77	4.38	6.20	3.35	2.68	30.46	100.00	2340395	6658
1997	19.37	1.47	20.95	11.51	4.68	6.50	3.14	2.68	29.70	100.00	2344642	6616
1998	20.91	1.33	21.03	11.65	4.39	6.58	3.19	2.58	28.32	100.00	2346800	6682
1999	20.14	1.47	21.66	12.15	4.58	6.77	3.48	2.28	27.48	100.00	2353265	7214
2000	19.75	1.65	22.38	11.39	4.26	6.84	3.76	2.05	27.93	100.00	2365064	7237
2001	18.90	1.51	23.67	12.03	4.28	6.64	3.78	2.35	26.82	100.00	2383776	7569
2002	18.72	1.51	24.72	12.11	4.25	6.78	3.76	1.97	26.18	100.00	2403976	16673
2003	17.36	1.51	24.72	12.82	4.11	7.16	3.93	2.52	25.88	100.00	2426049	16978

(continued on the next page)

(continuation of Table 1)

Year	Labor force								Non- em- ployed	Total	Popula- tion	No. of cases
	Wage and salary workers				Self-employed		Train- ees	Unem- ployed				
	Full-time		Part- time 15+ ^a	Part- time 1-14 ^b	Full- time	Part- time						
	Perma- nent	Tempo- rary										
<i>Men aged 25 to 55s</i>												
1991	74.60	2.97	2.90	0.63	15.05	0.73	0.07	0.74	2.30	100.00	1557793	4287
1992	72.16	4.55	3.06	0.56	14.95	0.67	0.35	1.57	2.12	100.00	1575246	4576
1993	71.67	3.52	3.53	0.59	15.77	0.57	0.19	1.90	2.26	100.00	1612990	4910
1994	71.25	3.90	3.32	0.54	15.22	0.55	0.12	2.68	2.42	100.00	1631930	4892
1995	70.44	3.64	3.93	0.57	16.15	0.81	0.17	1.90	2.39	100.00	1642098	8651
1996	69.50	2.56	3.27	0.61	17.75	0.84	0.21	2.64	2.61	100.00	1652428	4359
1997	68.04	2.16	4.02	0.70	18.10	1.07	0.17	3.03	2.71	100.00	1666817	4460
1998	68.33	2.59	4.03	0.61	18.10	1.11	0.12	2.22	2.90	100.00	1661045	4505
1999	68.81	2.62	4.16	0.40	17.99	1.33	0.18	1.77	2.74	100.00	1655277	4820
2000	69.16	1.52	4.30	0.74	18.34	1.34	0.24	1.26	3.10	100.00	1659331	4741
2001	70.02	1.77	4.66	0.80	17.18	1.30	0.21	0.83	3.23	100.00	1654683	4846
2002	68.13	2.15	4.85	0.67	17.49	1.49	0.09	1.55	3.58	100.00	1661455	10357
2003	66.14	2.12	5.41	0.63	17.60	1.29	0.20	2.27	4.33	100.00	1669200	10300
<i>Women aged 25 to 55</i>												
1991	23.83	1.37	21.13	13.66	5.19	5.29	0.08	1.82	27.63	100.00	1519564	4833
1992	21.30	1.96	22.13	14.04	4.36	7.29	0.12	2.53	26.27	100.00	1548827	5178
1993	20.55	1.26	21.99	13.38	4.79	7.53	0.24	3.10	27.15	100.00	1579081	5480
1994	20.32	1.51	22.90	13.70	4.23	7.09	0.15	2.82	27.27	100.00	1600309	5515
1995	21.22	1.60	23.50	13.14	4.53	6.53	0.11	2.73	26.66	100.00	1620044	9409
1996	21.45	1.19	24.81	12.22	4.61	7.10	0.13	2.94	25.56	100.00	1633972	4816
1997	20.39	1.18	25.50	12.92	5.10	7.31	0.09	2.92	24.59	100.00	1639456	4830
1998	22.77	0.86	25.57	12.92	4.92	7.25	0.12	2.69	22.90	100.00	1648122	4830
1999	21.84	1.09	25.97	13.19	5.56	7.31	0.09	2.26	22.68	100.00	1648273	5207
2000	21.87	1.26	27.17	12.51	4.87	7.57	0.15	2.19	22.41	100.00	1648110	5199
2001	20.46	1.12	28.78	12.88	5.11	7.79	0.16	2.36	21.33	100.00	1656973	5416
2002	20.57	1.16	30.18	13.67	5.11	7.24	0.13	2.09	19.85	100.00	1664110	11758
2003	19.08	1.22	30.03	14.52	4.78	7.95	0.06	2.32	20.05	100.00	1667737	11802

Source: Swiss Federal Statistical Office, Swiss Labour Force Survey (SLFS), the authors' own calculations (weighted, post-stratification neglected).

^a Part-time, working 15 or more hours per week

^b Part-time, working 1 to 14 hours per week

Table 2. Distribution of employment forms in Switzerland from 1970 to 2000

Year	Labor force							Non-em- ployed	Total	Popula- tion
	Wage and salary workers			Self-employed		Trainees	Unem- ployed			
	Full-time	Part-time 25+ ^a	Part-time 6-24 ^b	Full-time	Part-time					
<i>Men aged 16 to 64s</i>										
1970	73.24	0.74	0.92	13.34	0.57	4.56	0.15	6.48	100.00	2004668
1980	71.11	0.96	1.14	12.02	0.63	5.49	0.70	7.95	100.00	2082729
1990	68.98	1.42	1.31	13.19	0.73	4.80	1.60	7.98	100.00	2364289
2000	59.54	2.50	1.64	15.76	1.56	4.54	2.82	11.62	100.00	2433588
<i>Women aged 16 to 64</i>										
1970	30.45	5.56	4.44	2.81	3.20	2.29	0.11	51.15	100.00	1995687
1980	28.89	4.66	9.31	3.17	2.58	3.37	0.48	47.54	100.00	2076787
1990	29.34	6.59	12.91	3.60	3.23	3.47	1.65	39.21	100.00	2285526
2000	27.00	9.96	14.92	5.18	4.29	3.45	3.58	31.61	100.00	2407303
<i>Men aged 25 to 55</i>										
1970	81.24	0.55	0.84	14.78	0.42	0.03	0.13	2.02	100.00	1288132
1980	80.64	0.88	0.97	13.87	0.54	0.10	0.61	2.39	100.00	1363497
1990	77.04	1.55	1.20	15.11	0.71	0.14	1.51	2.75	100.00	1615084
2000	68.15	2.83	1.44	17.71	1.53	0.25	2.63	5.44	100.00	1697669
<i>Women aged 25 to 55</i>										
1970	26.29	6.44	5.30	3.12	3.87	0.04	0.08	54.87	100.00	1257238
1980	26.31	5.67	11.88	3.75	3.19	0.06	0.35	48.79	100.00	1344511
1990	28.71	8.15	16.22	4.29	4.07	0.11	1.71	36.73	100.00	1535819
2000	28.90	12.10	18.04	5.84	5.12	0.21	3.87	25.91	100.00	1673730

Source: Swiss Federal Statistical Office, harmonized personal records from the 1970, 1980, 1990, and 2000 Swiss Censuses, the authors' own calculations.

^a Part-time, working 25 or more hours per week (1970: 20 or more)

^b Part-time, working 6 to 24 hours per week (1970: 6 to 19)

Table 3. Distribution of employment forms in Germany from 1985 to 2002 (West German states only)

Year	Labor force								Non-employed	Total	Population	No. of cases
	Wage and salary workers				Self-employed		Trainees	Unemployed				
	Full-time		Part-time	Marginally	Full-time	Part-time						
	Permanent	Temporary										
<i>Men aged 16 to 64</i>												
1985	59.48	4.78	0.75	0.78	8.27	0.39	4.00	5.72	15.84	100.00	20189167	5008
1986	58.17	5.67	1.51	0.85	8.20	0.80	4.02	4.68	16.09	100.00	20422095	4841
1987	59.62	4.63	0.78	1.29	7.86	1.14	5.10	5.12	14.45	100.00	20733823	4777
1988	60.74	3.72	0.83	1.17	7.82	0.82	5.05	4.82	15.03	100.00	20726705	4534
1989	61.08	4.47	1.00	0.73	7.26	0.86	4.88	3.85	15.87	100.00	20902168	4381
1990	60.76	4.23	1.45	1.17	7.71	0.96	5.04	3.66	15.01	100.00	21522617	4273
1991	60.43	4.39	1.14	1.43	7.64	1.05	5.34	3.32	15.27	100.00	22007277	4256
1992	61.06	3.80	1.42	1.87	7.66	0.58	4.06	4.31	15.25	100.00	21826271	4171
1993	59.83	4.25	1.37	1.33	7.66	0.85	3.77	5.56	15.37	100.00	21952073	4142
1994	57.50	5.14	0.88	1.94	7.67	1.44	3.31	7.26	14.86	100.00	21857771	4003
1995	59.05	3.20	1.20	2.26	7.31	0.65	3.50	7.17	15.66	100.00	21979018	4233
1996	57.60	3.73	1.81	2.43	7.36	1.32	3.30	7.16	15.28	100.00	22049117	4099
1997	56.00	4.23	2.43	2.35	7.80	0.96	3.15	7.69	15.39	100.00	22087813	4009
1998	56.59	3.93	2.67	2.36	7.71	0.97	3.38	7.11	15.29	100.00	21857741	4462
1999	55.41	5.04	2.22	2.99	8.70	0.83	3.52	5.98	15.31	100.00	21906136	4260
2000	56.16	3.77	2.35	2.68	8.25	0.94	3.07	5.42	17.36	100.00	21946941	7655
2001	55.36	3.27	3.12	2.64	8.84	0.59	3.05	5.79	17.32	100.00	21694990	6811
2002	55.32	3.39	2.37	2.89	8.68	0.57	3.26	5.95	17.58	100.00	21242499	6366
<i>Women aged 16 to 64</i>												
1985	24.26	2.83	13.14	2.57	2.69	2.59	2.63	4.31	44.99	100.00	20862784	4961
1986	23.93	2.96	10.90	4.51	3.24	3.51	3.27	4.61	43.08	100.00	21082748	4755
1987	24.36	3.00	13.14	3.01	3.19	3.74	4.26	4.00	41.31	100.00	20947940	4651
1988	25.55	1.96	13.70	3.08	3.16	3.44	4.57	4.00	40.53	100.00	21091431	4433
1989	27.51	2.40	13.88	3.04	2.72	3.25	4.05	3.62	39.53	100.00	21174633	4299
1990	27.04	3.20	15.80	3.17	2.42	3.72	3.67	3.07	37.91	100.00	21458245	4183
1991	27.51	2.91	16.44	3.87	2.31	3.15	3.84	2.55	37.42	100.00	21247912	4172
1992	27.92	2.50	17.19	2.47	2.62	2.90	3.49	3.31	37.59	100.00	21691267	4145
1993	27.55	2.93	17.24	3.04	2.69	3.04	3.27	3.85	36.39	100.00	21931273	4092
1994	25.87	3.27	16.29	4.32	2.49	2.70	2.57	5.34	37.14	100.00	22066750	4039
1995	27.60	2.00	16.51	4.81	2.58	2.70	2.30	5.82	35.68	100.00	22068726	4285
1996	27.11	1.58	17.49	5.20	2.51	3.24	2.12	6.49	34.27	100.00	22071282	4174
1997	25.96	2.12	16.90	4.77	3.05	2.25	2.61	6.23	36.11	100.00	22182854	4077
1998	26.54	2.09	16.79	4.97	2.61	2.45	2.28	5.68	36.59	100.00	22285640	4564
1999	27.30	2.25	15.94	6.80	2.85	2.63	2.47	4.77	34.99	100.00	22420314	4355
2000	25.65	2.43	18.80	6.31	2.64	2.59	2.15	3.84	35.59	100.00	22538781	7964
2001	26.43	2.20	19.27	6.06	2.84	2.55	3.19	4.73	32.73	100.00	22663833	7172
2002	25.87	2.06	19.86	6.53	2.39	2.40	3.06	5.67	32.16	100.00	22590995	6761

(continued on the next page)

(continuation of Table 3)

Year	Labor force								Non- em- ployed	Total	Popula- tion	No. of cases
	Wage and salary workers				Self-employed		Train- ees	Unem- ployed				
	Full-time		Part- time	Margin ally	Full- time	Part- time						
	Perma- nent	Tempo- rary										
<i>Men aged 25 to 55</i>												
1985	73.85	3.20	0.84	0.82	10.13	0.27	0.35	6.08	4.45	100.00	12860007	3305
1986	73.51	4.09	1.72	0.28	9.71	0.55	0.33	4.97	4.84	100.00	13095097	3152
1987	74.24	3.78	0.59	0.67	9.81	0.63	0.47	5.38	4.44	100.00	13176070	3081
1988	75.20	3.63	0.76	0.60	9.30	0.32	0.46	4.80	4.92	100.00	13289473	2909
1989	77.07	4.13	0.81	0.15	9.00	0.57	0.35	3.51	4.40	100.00	13541661	2825
1990	75.79	3.97	0.99	0.53	9.56	0.66	0.82	3.13	4.55	100.00	14310397	2822
1991	75.03	3.59	1.01	0.74	9.76	0.41	1.47	3.19	4.81	100.00	14537189	2822
1992	74.22	3.52	1.55	0.72	9.56	0.53	0.45	3.86	5.59	100.00	14703180	2804
1993	72.82	4.02	1.44	0.61	9.83	0.35	0.55	5.15	5.25	100.00	14974043	2799
1994	69.66	4.61	0.83	1.38	9.70	1.23	0.43	6.91	5.24	100.00	15083064	2755
1995	70.40	3.23	1.45	1.73	9.23	0.56	0.72	6.61	6.08	100.00	15105805	2941
1996	69.68	3.93	2.22	2.03	9.15	1.23	0.40	6.17	5.20	100.00	14967827	2857
1997	67.65	5.04	2.51	1.69	9.86	0.88	0.43	7.57	4.38	100.00	14880798	2768
1998	68.80	4.42	3.06	1.53	10.00	0.77	0.77	6.70	3.96	100.00	14823338	3063
1999	69.10	5.47	2.34	2.09	11.47	0.37	0.45	4.29	4.42	100.00	14675284	2925
2000	70.93	3.85	2.11	1.63	10.33	0.62	0.28	4.91	5.33	100.00	14674425	5226
2001	69.68	3.43	3.19	1.02	11.16	0.38	0.22	5.45	5.48	100.00	14547600	4639
2002	70.40	3.87	2.43	1.45	10.60	0.41	0.36	5.36	5.13	100.00	14262019	4330
<i>Women aged 25 to 55</i>												
1985	26.29	1.83	18.81	2.89	3.10	3.27	0.09	4.00	39.74	100.00	12948072	3232
1986	26.60	1.63	15.01	5.60	3.86	4.40	0.04	4.31	38.56	100.00	13024237	3098
1987	27.13	2.14	18.38	3.18	3.86	4.72	0.14	3.81	36.64	100.00	12997250	3027
1988	28.08	1.26	19.38	3.46	3.99	4.65	0.15	4.03	35.01	100.00	13216473	2865
1989	30.20	1.32	19.33	3.37	3.58	3.66	0.16	3.20	35.18	100.00	13448160	2782
1990	29.94	2.15	22.14	3.23	2.58	4.06	0.27	3.33	32.29	100.00	13854706	2729
1991	31.12	1.96	22.14	4.44	2.77	3.77	0.57	2.38	30.85	100.00	14029205	2750
1992	31.81	2.03	22.03	2.70	2.93	3.40	0.52	3.33	31.26	100.00	14412387	2765
1993	30.71	2.39	21.58	3.71	2.95	3.42	0.47	3.65	31.13	100.00	14817426	2752
1994	29.72	2.73	20.18	5.29	3.03	2.94	0.44	5.28	30.39	100.00	14961653	2737
1995	31.49	1.83	21.20	5.36	3.28	2.72	0.32	5.44	28.36	100.00	14968278	2946
1996	30.51	1.38	22.36	5.36	2.97	3.76	0.34	6.43	26.89	100.00	14923417	2889
1997	31.15	2.14	22.10	4.75	3.88	2.21	0.17	6.05	27.54	100.00	15030897	2844
1998	31.93	2.08	21.84	4.80	3.45	2.53	0.40	5.10	27.86	100.00	15127458	3166
1999	32.46	2.42	20.45	7.13	3.88	3.19	0.55	4.61	25.31	100.00	14905975	3003
2000	30.68	2.29	24.53	6.31	3.49	2.92	0.15	3.63	26.01	100.00	14911647	5462
2001	32.29	1.99	24.67	6.19	3.88	2.52	0.27	4.72	23.47	100.00	15005568	4909
2002	30.53	2.27	25.40	6.31	3.25	2.54	0.44	5.63	23.61	100.00	15039052	4616

Source: German Institute for Economic Research (DIW), German Socio-Economic Panel (SOEP), the authors' own calculations (weighted).