

Edeltraut Hoffmann and Ulrich Walwei

The Change in Employment Forms
- Empirical Results and First Explanatory Approaches

- **Regular employment - a discontinued line?**
- **Opportunities and risks of new employment forms**
- **Possibilities of arranging an employment relationship**
- **The role of labour market regulations**
- **Development of employment forms in Germany**
- **Determinants of the change in employment forms**

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Institut für Arbeitsmarkt- und Berufsforschung der Bundesanstalt für Arbeit (IAB),
Regensburger Strasse 104, 90327 Nürnberg/Germany
Telephone: +49-911-179-0
Telefax: +49-911-179-3258

Coordinators:

IAB Topics Working Group: Lutz Bellmann, Werner Dostal, Knut Emmerich, Barbara Koller,
Gerhard Kühlewind, Gerd Peters, Hannelore Plicht, Thomas Rhein, Alexandros Tassinopoulos,
Ulrich Walwei, Heinz Werner

Translator:

Karen Scott-Leuteritz, c/o Institut für Arbeitsmarkt- und Berufsforschung der Bundesanstalt für
Arbeit (IAB), Regensburger Strasse 104, 90327 Nürnberg

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The Change in Employment Forms - Empirical Results and First Explanatory Approaches

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¹ Edeltraut Hoffmann and Ulrich Walwei are researchers at the Institut für Arbeitsmarkt- und Berufsforschung IAB Labour Market Research Topics 34 (1999)

1 Introduction

In all industrial countries² the institutional form of gainful employment is in a state of flux, for the relationship between labour supply and labour demand is repeatedly being organised by new and altered contractual forms. Employment relationships that were hitherto considered regular, i.e. permanent full-time relationships in an employee status, are visibly becoming less significant.

The existence of atypical forms of employment continues to cause fierce controversy. The growing number of employment forms that diverge from the so-called "regular employment relationship" has rekindled the controversial debate. Depending on the point of view, either hopes or fears are articulated when empirical findings prove that mainly women work in part-time employment relationships which are more or less socially protected, that many new staff are employed only on a fixed-term basis or that enterprises are increasingly eliminating employment risks by using agency workers or by contracting out work to (nominally) self-employed people.

In view of the growing variety of employment forms and changes in the prevailing labour market conditions (e.g. with regard to employees' preferences) it is no longer so easy to assess which forms of employment are associated with which opportunities and risks for society and for the individual. On the one hand diverging forms of employment are considered less regulated than the regular employment relationship, and therefore also have less protection from a legal point of view. On the other hand they represent transitional forms or bridges to the regular employment relationship.

An important question in this respect, and one which has so far been dealt with far too rarely, is what factors actually lie behind the dynamics of the change in employment forms. This report is intended to provide initial answers to this difficult question, taking Germany as an example. Germany is still one of the countries with rather extensive labour market regulation, whose origins and justification date in some cases from the last century.³ The starting-point for the considerations is therefore first of all the possibilities of arranging an employment relationship. It consists - as is explained in the second section - of a variety of features that can be arranged. These can be affected by regulations in very different ways. Regulations provide for a specific distribution of possible actions: they open up or restrict the options of enterprises and employees to varying extents. This report is, however, not intended to stop at these purely theoretical considerations. The third section takes analyses of the German labour force survey and uses them to examine whether from an empirical point of view the regular employment relationship really should - as is often claimed - already be described as a discontinued line. Finally at the end initial primarily qualitative observations are made concerning the possible determinants of the change in employment forms. They are intended to lay the "foundation stone" for approaches in labour market prognosis.

² Cf. regarding the developments which are not dealt with in more detail here from an international comparative perspective, among others Delsen 1995; Meulders/ Plasman/ Plasman 1996; De Grip/Hoevenberg/Willems 1997

³ Cf. OECD 1994

2 Employment forms and labour law

One key to solving labour market problems is frequently seen in more flexibility at micro-level, e.g. in the context of company-internal agreements. What is crucial here among other things is what contractual forms are used to organise the relationship between labour supply and labour demand. The central questions in the debate surrounding the move towards more flexible employment practices are: (1) How flexible do the employment relationships have to be so that no problems arise on the labour market (or that problems already existing can not be eliminated)? (2) How should more flexibility be arranged so that social problems do not occur at all if possible?

2.1 Flexibility of employment relationships

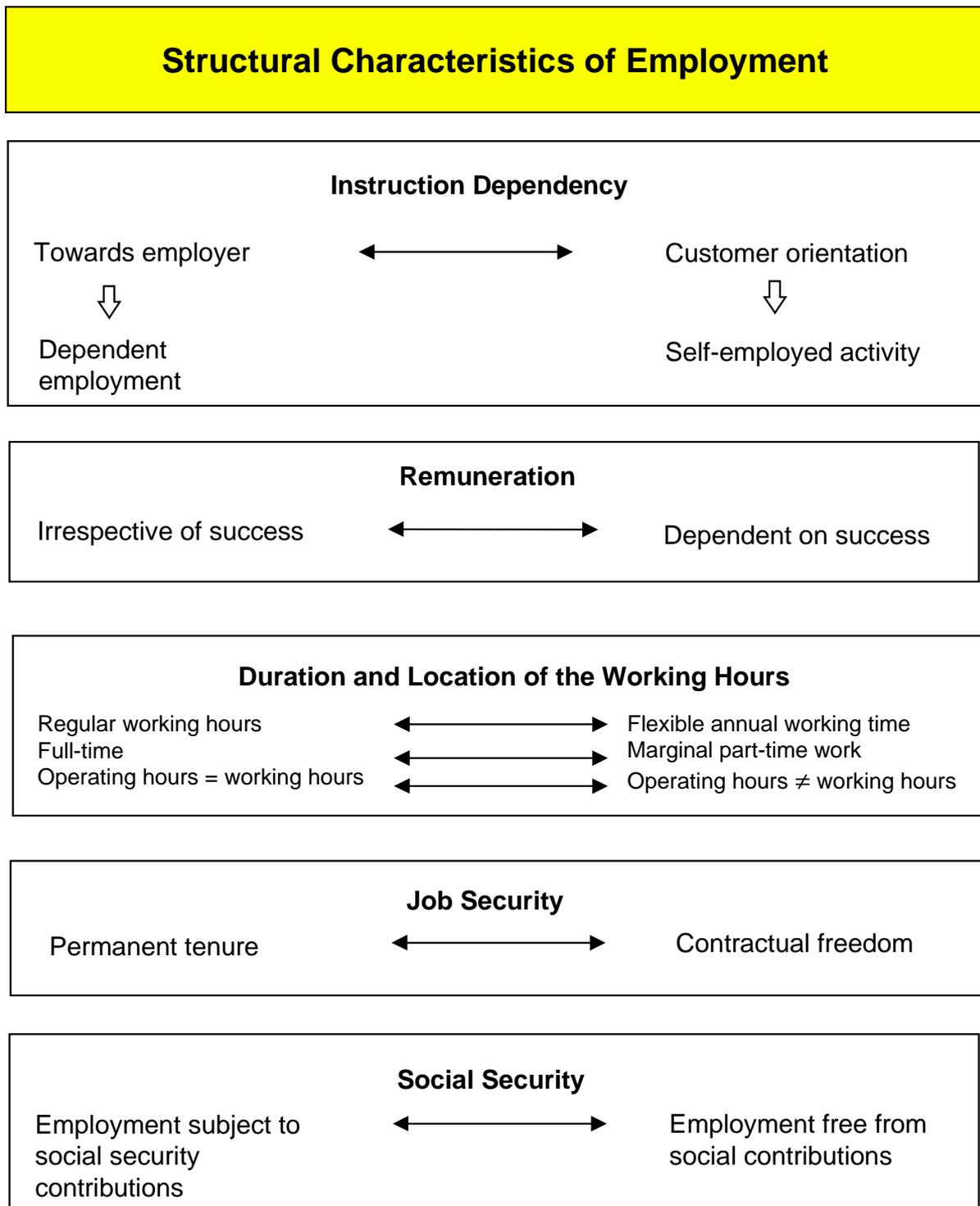
Employment relationships are made up of a whole range of features (cf. *Figure 1*). The various features open up extensive arrangement possibilities for the contracting parties in theory (i.e. without taking regulations into account). The diagram in *Figure 1* considers both individual elements of the employment relationship concerning their degree of flexibility as well as the range of flexibility of the various components. In principle a wide range of employment forms are conceivable depending on the arrangement and combination of the various features.

From a theoretical point of view the choice of an employment form depends on which options the labour market actors have at their disposal and to what extent they (can) make use of them. *Figure 2* illustrates the relationships relevant in this respect. The actors' scope of action is first of all defined by the legal system and the institutional framework (including collective agreement regulations). The regulations influence costs and benefits of various alternatives of action for those involved. They can open up different degrees of scope for flexibility, such as the forms assigned to the features in *Figure 1* (e.g. permanent tenure or no dismissal protection in the area of job security) should make clear. Whether then though the scope for action defined by institutional guidelines is actually made use of fully, is a different matter and depends first and foremost on three factors:

1. the net benefit of the available alternatives,
2. the preferences of the actors on both sides of the market and
3. on the one hand the possibilities the enterprises have to implement personnel-policy ideas and on the other hand specific employment interests of individuals supplying labour, both of which are not least dependent on the labour market situation.

The observations made so far suggest an integral examination of the employment relationship. From an economic viewpoint it is easy to comprehend that not all of the elements may be rigid simultaneously. If massive flexibility restrictions were to fall on all the features of a certain form of employment, it would be impossible to avoid evasive reactions. An open question is, however, how flexible employment relationships have to be or may be. Economic analyses of labour law can make a contribution towards answering this question.

Figure 1



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Figure 2

The Choice of an Employment Form

- Legal and actual possibilities for action -

Possibilities for action

are defined by regulations which influence the costs and benefits of different alternative actions



Utilisation of the possibilities of action

dependent on the labour market situation and the preferences of the actors on both sides of the market. Relevant aspects include



Demand behaviour of the employer

- Labour costs of the particular employment form
- Work to be done in-house or outsourced
- Flexibilisation of working hours preferences

Supply behaviour of the worker

- Obtainable income
- Social benefits
- Working time

2.2 On the role of labour market regulations

If the neo-classical paradigm is taken as a basis, the issue of the appropriateness of labour market regulations does not require any further analysis. Restrictions in contractual freedom on the labour market must be eliminated without replacement because they are necessarily accompanied by a loss of efficiency for the contracting parties. Following this point of view labour market regulations lead to suboptimal results because contractual exchange possibilities (here in the sense of the materialisation of employment contracts) are impaired. This can be seen clearly in the example of dismissal protection. Effective dismissal protection can be seen as a restriction against enterprises making redundancies, e.g. when employees can not be dismissed freely. Effective dismissal protection, however, also impairs the substitution competition of the workers because it is not possible for outsiders to displace insiders at will.

A more differentiated assessment of regulations results, however, when the specific characteristics and assumptions of the neo-classical model are compared with reality. Such a comparison brings to light *market failure* in two respects. Firstly an allocation that is in line with free market principles does not necessarily lead to a desirable market result in the sense of a fair distribution. Secondly allocation is not necessarily efficient when the assumptions of the neo-classical approach are not met or are only insufficiently met.⁴ Both of these problems are relevant with regard to the labour market and provide starting-points for regulatory intervention.

Labour law as an instrument for correcting market failure caused by negative distributional effects

In the neo-classical model fair market distributions do not occur automatically, but at best when ideal-type conditions are present: existence of a stable balance; equal starting opportunities for everyone; following and existence of fair rules of competition. If such conditions do not exist, however, as is often observed in (labour market) reality, undesirable market results in the form of extreme asymmetrical distribution can not be ruled out. Different bargaining positions can provide an economic justification for restrictions in contractual freedom. They make possible "fair terms of contract" and are the precondition for equivalent values (equivalence of performance and counter-performance) being exchangeable at all.

In labour law there is a wealth of examples of regulations that are orientated towards the aim of distribution. Thus for example minimum wages laid down by the state or by collective agreement serve the aim of preventing income poverty. What is behind this is the idea that gainful employment should secure a livelihood for the overwhelming majority of the population of working age. Minimum wages on the basis of collective agreements or laws have the function first and foremost of ruling out competition by undercutting (e.g. in the form of lower hourly wages for a given number of hours or in the form of overtime at the given gross wage). A further example of regulations orientated towards the aim of distribution is the laying down of maximum working hours (including the limitation of night-work) which aim to safeguard health and safety at work.

⁴ Cf. on this issue: Knieps 1988 and Paqué 1989
IAB Labour Market Research Topics 34 (1999)

Labour law as an instrument for correcting market failure caused by negative allocative effects

A further reason for labour market regulations can be derived from the fact that employment relationships are not comparable with conventional exchange relationships. In an imperfect world many mutually advantageous contracts do not materialise because the search for suitable parties to the contract, the negotiation of the terms of the contract and the implementation of the contracts are associated with costs that can not be ignored. This applies especially for the labour market. Thus the standardisation of employment contracts by means of laws and collective agreements saves diverse negotiation costs. What is also important is the existence of contract-related investments as well as the mutual information asymmetries typical of the employment relationship. Contract-related investments are a fundamental reason for the efficiency of longer-term contracts and relationships. Such investments constitute a capital whose rentability depends on the continuation of the relationship. Longer-term relationships guarantee that the interests of those involved are not jeopardised with regard to the amortisation of the investments during the current contract. In the event of the relationship being terminated the investments would otherwise be irretrievably lost (so-called "sunk costs").

We speak of asymmetrical information when contracting parties have different information about relevant features of the performance and counter-performance. When asymmetrical information exists it therefore remains open to a certain extent what obligations have been agreed to by the contracting parties. There is an asymmetrical distribution of information above all with regard to the implicit components of the employment relationship. For the employer's implicit "career promise" faces the employee's implicit "performance promise".⁵ On the one hand the employer is uncertain about the employee's willingness to perform, because in the context of the employment contract it is not the employee's capacity to work which is exchanged, but performances involving an employer's right to deploy the capacity to work in the production process. The incomplete specification of the performance required of the employee in the employment contract can be given as a further reason for an employer's imperfect information. On the other hand the vagueness of employer performances, e.g. the granting of opportunities for advancement and job security, influences the employment relationship and the employee's willingness to perform.

Norms in labour law (such as employment protection) which serve to make the employment relationship permanent and transparent help to reduce the insecurity of potential exchange partners with regard to certain current or future circumstances and to stabilise mutual expectations. Furthermore such protective norms promote an employment relationship based on a willingness to cooperate, as is shown by game theory approaches.⁶ Thus job security in the sense of a lower risk of dismissal can have a positive effect on the willingness to perform. It promotes the employees' identification with company objectives, the passing on of knowledge and abilities, the company-internal mobility as well as the acceptance of technological progress.

Labour market regulations can thus have both effects that reduce efficiency and effects that increase efficiency. A decisive question of the economic analysis of labour law therefore arises as to whether concrete protective norms lead to a restriction of freedom for

⁵ Okun 1981

⁶ Cf. in more detail on this issue: Buttler/Walwei 1994

the decision-makers or whether they facilitate scope for freedom for the individuals in the first place. In the case of protective norms in labour law it is therefore not only a matter of avoiding market failure but also of not allowing policy failure to occur in the first place by means of practical regulations.

Labour law and policy failure

Labour market regulations can be the wrong response to a given problem or may in turn cause transaction costs and thus inefficiencies. It is therefore always natural to ask whether and to what extent distribution-related regulatory intervention in market allocation can be justified. The redistribution of income motivated by social policy is first of all a central task of national fiscal and social policy. Collective wage bargaining policy on the other hand has to fulfil its employment policy responsibility more strongly. If it is also to pursue social policy intentions, it is inevitable that conflicts of aims will arise. In particular the setting of collectively agreed minimum wages that are too high can result in impediments to recruitment and the loss of low-grade activities. Those who suffer from this are above all the less productive problem groups of the labour market. A conceivable way out of this dilemma is a stronger differentiation of pay structures, which could be accompanied by reductions in taxes and insurance contributions for low-earners.

Protective regulations can also have a disadvantageous effect in that they act as an incentive to avoid the protected form of employment. Thus high statutory non-wage labour costs can provide an incentive to select those employment forms that are not burdened with such contributions (e.g. employment relationships not subject to social insurance, or forms of self-employment). A far-reaching dismissal protection could act as an incentive for enterprises to select above all those forms of employment which have little or no dismissal protection (e.g. fixed-term contracts, use of agency workers or contracting out work to self-employed workers).

Finally protective regulations can also oppose outsiders, that is people outside the employment system who are not protected. For example in times of high unemployment dismissal protection restricts fluctuation and can contribute to the unemployment becoming reinforced. A high level of entitlement to employment protection after recruitment can contribute to an increase in the risk of remaining unemployed for certain groups of workers (e.g. for people who come under a special dismissal protection, such as is the case with the seriously disabled in Germany). As the protection of particular groups of people is intended to compensate for social disadvantage and is therefore first and foremost socially justified, it is possible that in the case of pressure on enterprises the result is an "economic curse of well-meaning", i.e. the protection goes against those who actually deserve the protection.

As a conclusion it can therefore be emphasised that a differentiated view of labour market regulations (unlike the clear view of the neo-classical approach) reveals diverse ambivalences and conflicts of aims. In the following section the question asked is whether the regular employment relationship, which is regarded everywhere as over-regulated, has failed from an empirical point of view.

3 Longer-term development of employment forms

Permanent, socially protected employment relationships covering a full five-day week are still the predominant employment form, but it is to be examined here whether a change in conventional employment structures and a loss of significance of "regular" employment relationships already became apparent empirically in the past.

3.1 Distinction of "regular employment relationships" in statistics

The so-called "regular employment relationship" constitutes a construct, a specific and possible organisation of work which is, however, not clearly defined. In specialist literature a multitude of different characteristics are named to distinguish the term, some of which can hardly be quantified, such as for example location and distribution of working hours, job security etc. (cf. also *Figure 1*).

For the following descriptive section the labour force survey alone was intentionally used, as a source of comprehensive and consistent employment statistics which provide comparable information over longer periods of time. The statistics of the Federal Employment Services concerning the hiring-out of labour were consulted only in order to take into account the supply of temporary workers by employment agencies.

Regular employment relationships are distinguished in the following - also orientated towards the available databasis of the labour force survey - as

- manual and non-manual employees (excluding trainees, civil servants, soldiers, self-employed workers and family workers)
- in full-time employment, i.e. with a weekly working time of generally 36 hours or more, and
- with a permanent contract of employment, and excluding agency workers.

A few comments are necessary concerning these characteristics:

- The term "regular employment relationship" is applied solely to manual and non-manual employees (excluding civil servants), as the employment relationships of civil servants, soldiers and trainees can not be given parity of treatment because of the special labour law conditions. In particular one thinks of the training contracts concluded for a fixed period of time or of the actual permanent tenure of German civil servants.
- For the definition of full-time and part-time employment it would in principle be preferable to use the respondents' self-definition, but not all of the data required for this was available in this study. For this reason the division between full-time and part-time employment was set at 36 working hours per week, although in some industries (e.g. the metal industry) the 35-hour week has been introduced in the meantime and for example VW workers may also call themselves full-time workers with their regular working week of 28.8 hours. On the other hand in this way comparability over greater periods of time or between western and eastern Germany is clearer and depends less on particularities of collective agreements or individual companies, which may have an effect on self-definition. A comparison among manual and non-manual workers of their self-definition as being in full-time employment with the delimitation according to the number of hours

worked reveals in the case of self-definition growing numbers of workers "working full-time", with a working week of between 21 and 35 hours (from 180,000 in 1985 to 760,000 in 1995). The decline in their shares of all those in employment is flatter. The development trend does not change as a result of this, however.

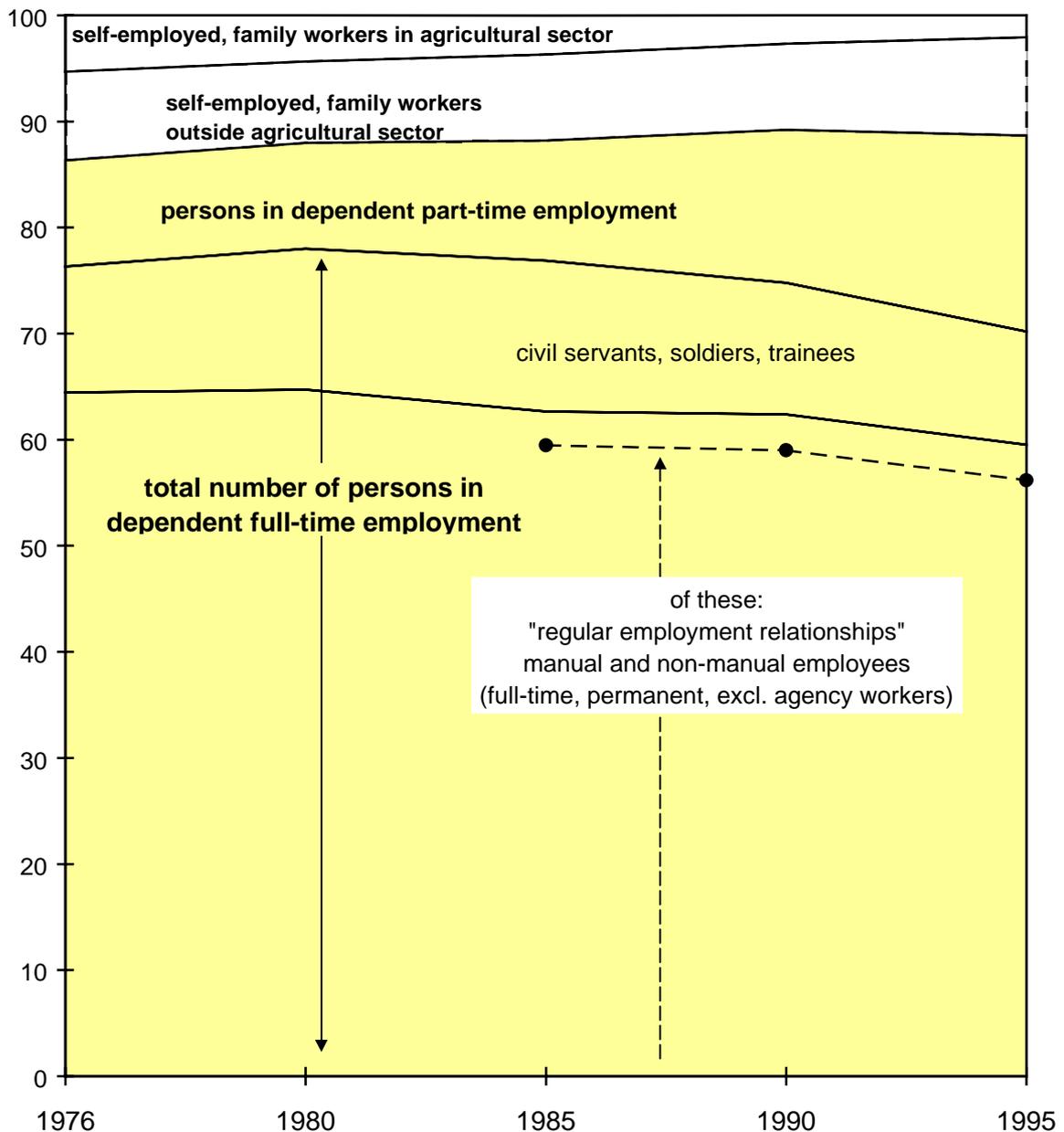
- The number of agency workers according to the statistics on the hiring-out of labour overlaps partially with the number of workers in fixed-term employment, but because of the small proportions of agency workers among all employed persons, this is of little consequence.

3.2 Development of employment forms between 1976 and 1995 in western Germany

Figure 3 shows the longer-term development of employment forms from 1976 until 1995 in western Germany (see Section 3.3 on the employment structure in eastern Germany). It becomes clear that particularly since the mid 1980s movement has entered the employment structure. In 1985 first amendments of laws came into force on the deregulation of fixed-term employment and temporary work via employment agencies as well as on the equal treatment of full-time and part-time workers. These amendments were expected to have effects on the development of regular employment relationships. Finally in 1985 questions regarding the type of employment contract - fixed-term/permanent - were incorporated for the first time into the survey programme of the labour force survey. Such details are of importance for defining the regular employment relationship.

Figure 3: Change in employment forms 1976 - 1995
- western Germany -

Proportions of entire employment in %

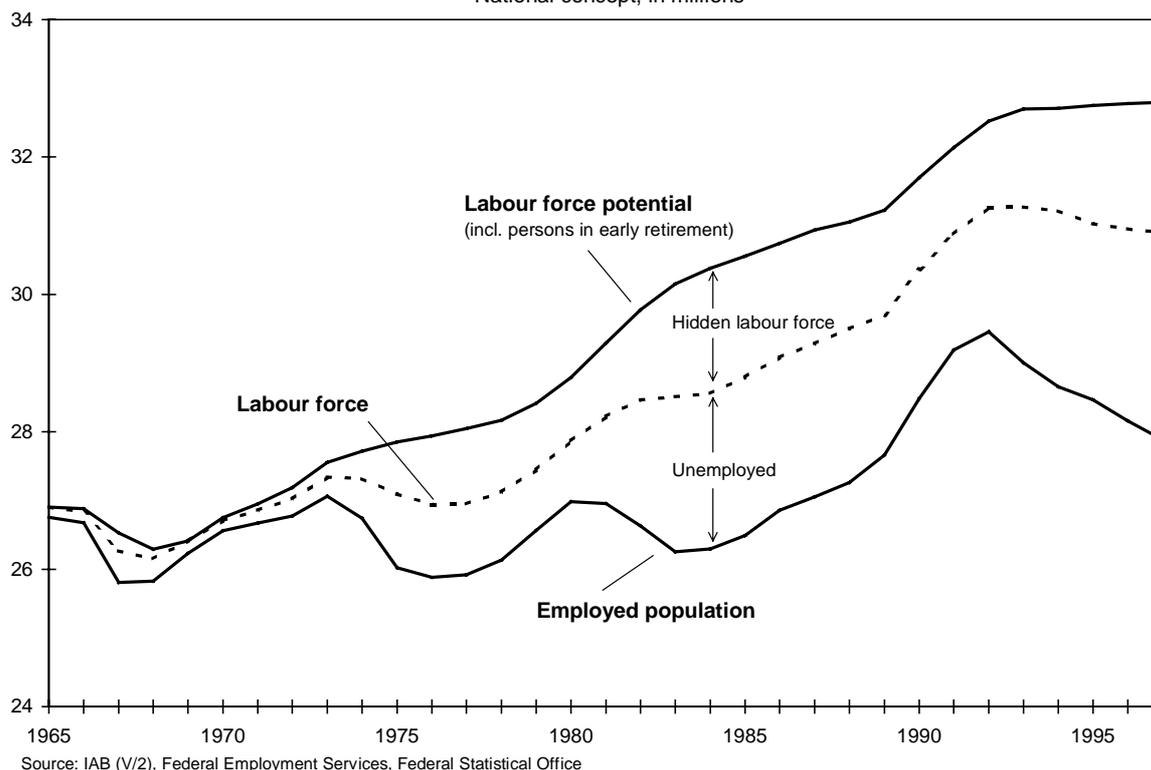


Source: Microcensus; statistics on the hiring-out of labour from the Federal Employment Services.

It is furthermore necessary to say that the period 1985/1995 is characterised - besides the unification of the two parts of Germany and its consequences - by two phases of contrary economic trend with a corresponding effect on the labour market: after a definite decline in underemployment (the total of unemployment and the hidden labour force) from 1985 until 1992, in the subsequent years the divide between labour supply and labour demand widened and led to a highest level in the unemployment figure (see *Figure 4*).

Figure 4: Western German Labour Market Balance 1965 - 1997

- National concept, in millions -



The following subdivision describes the way the significance of the individual forms of employment developed between 1976 and 1995: regular employment relationships (from 1985) and other forms of full-time dependent employment, part-time dependent employment and self-employment (including family workers).

Regular employment relationships and other forms of full-time dependent employment

The proportion of all employed people who were in regular employment relationships, i.e. manual and non-manual workers in permanent full-time employment (excluding temporary workers employed by employment agencies) remained roughly unchanged in 1990 compared with 1985 while at the same time the employment figure increased from 26.6 million to 29.3 million. By 1995 this proportion had fallen clearly, however, by about 3 percentage points to 56.2 percent with only a slight decrease in the employment figure. In absolute figures this means a decline of 878,000 whereas the employment figure fell by a total of only 90,000.

Regular employment relationships were not increasingly replaced by fixed-term full-time employment or temporary work via employment agencies, as the proportion of these employment forms remained virtually unchanged at a good 3 % of all employed persons.⁷ At least as far as full-time employment is concerned, the deregulation of the hiring-out of labour

⁷ Cf.: Rudolph 1996; Rudolph/Schröder 1997. It must be noted that although the number of temporary workers hired out by employment agencies and the number of fixed-term employment relationships rose particularly in the second half of the 1980s, the significance of these employment forms did not increase considerably in the context of the total employment trend because of the relatively low number. The number of fixed-term employment relationships even declined slightly between 1990 and 1995.

by agencies and of fixed-term employment contracts does not seem to have caused any stronger impulses so far since 1985.

A larger proportion of male than female employees were in a regular employment relationship (1985: 66.3 % of the men against 48.5 % of the women). For the men this proportion did not fall until after 1990 and declined less sharply in the period 1990/95 than was the case among the women.

The proportion of civil servants (in full-time employment) and of soldiers and trainees among all those in employment fell from 14.2% in 1985 to 10.5% in 1995 and was thus below the 1976 level. This drop is also determined by demographic and political developments (size of the age cohort of the trainees and those doing their military service, reduction of the army after unification).

Forms of part-time dependent employment

Part-time employment (defined here as a working week of less than 36 hours) gained in importance for all people in dependent employment - manual workers, non-manual workers, civil servants - over the entire period from 1976 to 1995. The proportion of part-time workers also increased by four percentage points in the 1990s and compensated in the employment figure for most of the losses in full-time dependent employment.

The manual and non-manual workers in part-time employment generally had permanent contracts. The proportion of fixed-term employment relationships and of temporary employment relationships with agency workers among all those employed increased in the second half of the 1980s, but stagnated in the 1990s at approximately 1.5%.

The increase in part-time employment in the period 1990 to 1995 was mainly borne by employment relationships above the limit of marginal part-time employment.⁸ "Marginal part-time work" is when the working week is regularly less than 15 hours and the annually adjusted earnings limit (e.g. in 1998 it was DM 620 in western Germany and DM 520 in eastern Germany) or one sixth of the total income is not exceeded. A "marginal part-time short-term job" is limited to a maximum of 2 months or 50 working days in one year. The income from marginal part-time employment was until April 1, 1999 in principle not subject to social security contributions. However, the number of people in marginal part-time employment in the labour force survey must be regarded as a lower limit owing to the survey design. That means that people who regularly do marginal part-time work are more likely to be registered, whereas people who only do such an activity occasionally are under-recorded.⁹ As regards the question as to whether the increase in the number of marginal part-time activities represents additional employment or the division of employment relationships that

⁸ There is no comparable labour force survey data available on marginal part-time employment for 1985.

⁹ With their different survey designs the socio-economic panel (SOEP) and the ISG survey (by the Otto-Blume-Institut für Sozialforschung und Gesellschaftspolitik [the Otto-Blume Institute for Social Research and Social Politics]) obtain considerably higher figures for people in marginal part-time employment (5.4 million for the whole of Germany according to the SOEP in 1996 and 5.6 million according to the ISG survey in 1997 compared with 2.2 million in the 1997 labour force survey) and find a greater increase in this form of employment. The enterprise surveys - IAB/ifo survey and IAB establishment panel - do not record people but marginal part-time employment relationships (3.4 million and 3.7 million respectively in 1997). Cf. on this issue Rudolph 1998.

were previously subject to social security contributions, there are indications from the IAB establishment panel that enterprises are using both possibilities.¹⁰

Part-time work and marginal part-time work is performed predominantly by women, while this form of employment continues to be of little significance for men. The proportion of all female workers who work part-time has increased since 1976 (from approx. 25% to 37% in 1995), complementary to the decline in the proportion of full-time employed persons and of regular employment relationships. However, the expansion of part-time employment among women - at least according to the results of the labour force survey - can not be attributed to an accelerated increase in the number of marginal part-time employment relationships which were not subject to social security contributions (the proportion of women solely in marginal part-time employment remained virtually unchanged in 1990 and 1995 at 6% of all employed females).

Part-time work seems to be requested mainly voluntarily by (western German) workers. At least in the labour force survey the proportion of people "forced" to work part-time - "because full-time employment could not be found" - was only small in the years under observation (between 5% and 7.5% of all those in part-time employment).¹¹ Second jobs were reported only slightly more frequently by part-timers than by full-time workers (in each case about 3%).

Forms of self-employment

The rate of self-employment has developed quite positively in the sectors outside agriculture. In contrast the overall rate has declined slightly. It was eclipsed by the structural change in the agricultural sector, where the significance of self-employment decreased constantly with the closure of many farming businesses. All in all the proportion of self-employed and family workers among all those in employment in 1995 no longer reached the level of 1976 (11.3% against 13.7%). Outside the agricultural sector the self-employed rate (including family workers) rose clearly between 1990 and 1995 from 8.1% to 9.3% and this was due only to the increase among the self-employed, whereas the proportion of family workers stagnated.

In the currently difficult labour market situation it is hoped that self-employed people will above all create additional jobs. This is also the fundamental intention of the large number of assistance schemes for starting up new businesses. In the entire period from 1976 to 1995 the proportion of self-employed workers with employees was above that of self-employed people without employees (4.1% to 4.9%). The proportion of one-person businesses developed more dynamically however (from 2.7% in 1976 to 3.6% in 1995).

Among the self-employed without employees there is also assumed to be an increase in so-called nominal self-employment. In an IAB study the number of nominally self-employed workers was estimated at between 179,000 and 431,000.¹² From a labour law point of view these workers would be classified as employees. By means of formal self-employment, social

¹⁰ Kohler/Rudolph/Spitznagel, 1996; Schupp/Schwarze/Wagner, 1997; Bogai 1998; Rudolph 1998;

¹¹ Unlike the situation in the new federal *Länder*, where this proportion was 39% in 1995.

On the subject of wishes regarding working hours cf.: Kohler/Spitznagel, 1995 and Beckmann/Kempf, 1996.

¹² This figure is based on a survey from 1994. The labour force survey does not include any criteria on the distinction in labour law terms between worker status and self-employed status and therefore on the definition of nominally self-employed workers. Cf. in detail on this matter: Dietrich, 1996 and 1998.

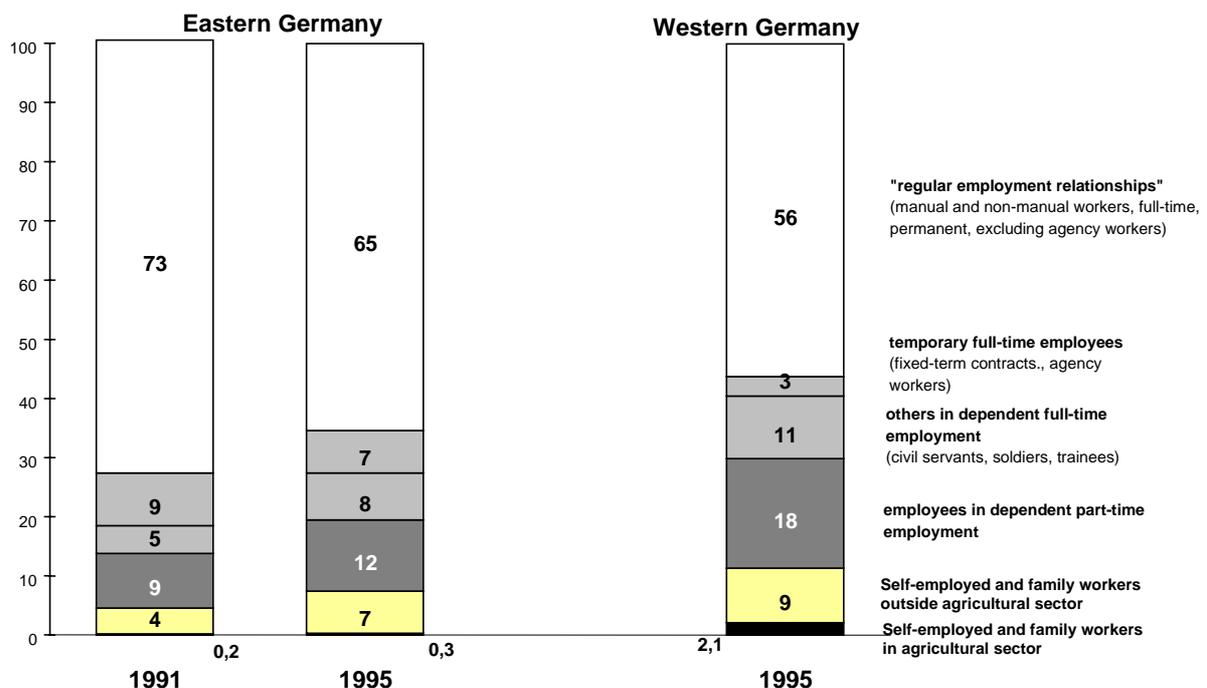
security contributions are avoided and labour-law protective regulations are cancelled - an economic incentive for such employment relationships.

3.3 Significance of the various employment forms in the new federal *Länder*

Data from the labour force survey has been available for eastern Germany only for the short period since 1991. From the change in employment forms between 1991 and 1995 it is possible to see the radical structural change and transformation of the eastern German economy even though this process is certainly not yet completed, with the result that it is hardly possible to derive clear trends from the development of employment forms so far (see *Figure 5*).

**Figure 5: Change in employment forms in eastern Germany 1991 and 1995
Comparison with western Germany 1995**

- Proportions of the entire employment in percent -



Source: Microcensus; statistics on the hiring-out of labour from the Federal Employment Services.

In the new federal *Länder* regular employment relationships lost considerable significance between 1991 and 1995 (an 8% drop in the proportion). Forms of self-employment, for which opportunities reappeared after unification, almost doubled in their proportion. Gains in proportions were also recorded for the so-called other forms of full-time dependent employment and for part-time employment.

In 1995 the employment structures in the new *Länder* still differed considerably from those in western Germany. In the new *Länder* regular employment relationships still carried greater weight. The difference was about 9 percentage points. The composition of the altogether higher proportion of temporary and other full-time dependent workers also differed from that in western Germany. In particular workers in fixed-term employment, but also trainees carried greater weight in the new *Länder*, civil servants on the other hand carried less weight. The greater proportion of fixed-term employment can partly be attributed to the active labour market policy in the new *Länder*. Job-creating measures (general measures for job-creation and specific forms of employment subsidies) enabled people with unfavourable labour market opportunities to obtain fixed-term work. A total of 80% of those in employment in the new *Länder* were in full-time employment compared with 70% in western Germany.

The fact that part-time employment (under 36 hours per week) has gained relatively little acceptance may be attributed among other things to the low level of willingness to work part-time because of the lower income associated with it. Also the proportion of employees solely in marginal part-time work among the entire employment was considerably smaller than in western Germany in 1995 (about 1% against about 3% according to the labour force survey).

In the new *Länder* far more part-time workers stated that they were only working fewer hours involuntarily because they were not able to find full-time employment than is the case in western Germany (some 39% compared with about 6% according to the labour force survey in 1995). This is confirmed by current survey results according to which there are very few full-timers in the new *Länder* who would like to work less. Furthermore there is (according to the same survey) a not inconsiderable number of women (involuntarily) working part-time who would like to work more hours.¹³

The reason for the still small proportion of self-employed workers and family workers is certainly to be seen in the catching-up process of the eastern German economy, which is not yet concluded, whereby uncertain prospects, lack of capital and such like must be mentioned as problems.

4 Determinants of the change in employment forms

The analysis and evaluation of the labour force survey have shown that the proportion of "regular permanent full-time employment relationships" has declined in the last two decades compared with other forms of employment that diverge from this. The significance of the employment forms has shifted above all in favour of part-time dependent employment and self-employment (mainly outside the agricultural sector). Moreover not inconsiderable differentiation processes have become visible among the various forms of employment (e.g. in

¹³ Beckmann/Kempf, 1996:

the form of the greater significance of one-person businesses or of marginal part-time employment as a special form of part-time work). A number of influential factors can be considered as an explanation for the change in employment forms which is emerging empirically. Of course it is not possible here to develop a complete theory of the "change in employment forms". For the time being the observations must remain eclectic. They also lay no claims to be exhaustive, because some significant aspects can not be examined within the scope of this report, e.g. certain institutional conditions (such as the right of participation of the works council, or the course of company-internal decision-making processes) or psychological factors (such as the blockade attitude of middle management regarding an increase in the flexibility of working hours, an attitude that is often lamented).

4.1 Sectoral and gender-specific change in the employment structure

Sector-specific structural change

The structural change on the labour market, which is taking place at national level, is reflected in its many facets in the constant beginning and terminating of employment relationships. In the industrial countries employment in the manufacturing sector and in large enterprises is declining and new jobs are arising above all in the service sector and in smaller and medium-sized enterprises. The shifts between the branches of the economy and between the size categories of enterprises have lasting effects on the significance of certain forms of employment for the economy as a whole. If as a result of the changed economic circumstances the need for adjustment in the personnel field also increases (e.g. due to fluctuations in orders or the varying utilisation of operating hours and service times), demand increases for the use of the most flexible forms of employment possible. For the increasing number of small businesses in the service sector that have to react flexibly to market processes, those employment forms are attractive which do not designate standardised working hours (e.g. part-time work and possibilities to agree on overtime) and which are accompanied by lower employment risks (e.g. by using fixed-term contracts or by contracting out work to self-employed people).

Change in the employment structure by gender

One characteristic of western industrial societies is the increasing orientation towards employment, which is seen above all in higher labour force participation rates of women. This process, which increasingly brings the household context into the focus of economic examination, is accompanied by diverse wishes concerning flexibilisation owing to heterogeneous needs of "new" and "traditional" groups of workers: employees are not (any longer) committed from the outset to a particular form of employment. The demand made on gainful employment is that it should also be compatible with other activities (training, family work, honorary post etc.) depending on the individual situation in life. In particular flexible employment forms of part-time work take this compatibility viewpoint into account. There could also be a pronounced interest in fixed-term employment among workers if only discontinuous employment is compatible with other activities or if the employment is only intended to improve the household budget in the short-term (e.g. as with seasonal employment). All this leads to less lineal career histories in which the working population passes through a wide variety of employment forms one after the other or simultaneously.

Shift analyses

As already mentioned earlier, the sectoral structural change to services and the increasing labour force participation of women alone - or at least predominantly - could have caused the change in employment forms. To clarify the question concerning the extent to which the structural changes in employment have contributed to the declining significance of regular employment relationships it is possible to refer to shift-share analyses¹⁴. *Table 1* contains analysis results on the influence of sectoral and gender-specific structural changes on the development of the shares of regular employment relationships and other employment forms in western Germany.¹⁵

What all the analysis results have in common is that the diffusion effect clearly outweighs the structural effect, whereby the structural effect in each case turns out to be relatively small. The shift in employment forms in the past, which has been established empirically, can thus only be attributed to a lesser extent to structural shifts. This means that even irrespective of the sector-specific and gender-specific changes in the employment structure, regular employment relationships, part-time work and forms of self-employment would have developed in the same direction and to roughly the same extent. Simple approaches to explain the change in employment forms are therefore not sufficient. The results of the shift-share analyses are not workable for forecasting future development either. Further theoretical and empirical analyses on the determinants of the diffusion effect are necessary. In the following sections therefore - as a first step - relevant explanatory factors for the change in employment forms are mentioned in order to find indications as to their importance for the future development, but also to point out possible action.

¹⁴ Cf. on this issue Walwei/Werner, 1996, who use a shift-share approach in analysing the growth of part-time employment. This approach also involved the sectoral and gender-specific dimension.

¹⁵ The labour force survey - the data source used here - includes no details on the structure of enterprise sizes. A detailed analysis of the relationship between the development of enterprise sizes and employment forms would go beyond the scope of this report because of its complexity.

Table 1:

Change in the employment structure

(Shift-share analyses)

	Structure		Difference in shares	Structural effect	Diffusion effect	Interaction term
	1985	1994				
	(shares in %)		(Change in percentage points)			
A) Influence of sectoral structural change						
1. Change in the proportion of manual and non-manual employees in regular employment relationships among all manual/non-manual employees	81,2	75,1	-6,1	-1,0	-5,1	0,0
2. Change in the proportion of self-employed workers in the total employed	7,7	8,7	0,9	0,2	0,7	0,0
a) in the economy as a whole, without agriculture	9,1	9,6	0,5	-0,3	0,8	0,0
b) in the economy as a whole						
B) Influence of changes in the gender-specific employment structure						
1. Change in the proportion of manual and non-manual employees in regular employment relationships among all employed persons	59,5	56,2 *	-3,3	-0,5	-2,7	-0,1
2. Change in the proportion of employees in part-time employment among all employed persons	10,8	17,5 *	6,7	0,7	5,8	0,2
C) Influence of sector-specific and gender-specific changes in the employment structure						
1. Change in the proportion of employees in regular employment relationships among all manual/non-manual employees (whole economy incl. agriculture)	81,2	75,1	-6,1	-1,4	-4,5	-0,2

* 1995

Source: Microcensus; Statistics on the hiring-out of labour from the Federal Employment Services

4.2 Labour law and deregulation initiatives

If the most important new regulations concerning employment relationships that have been introduced since 1985 are looked at, it can be seen that most of them are deregulation initiatives. There were two different directions in the changes in the laws: either they provided for a change in the protective rights of "regular" employment relationships (e.g. the new regulation of protection against dismissal) or they extended the authorisation of atypical employment forms (e.g. the new regulations in the fields of the hiring-out of labour and fixed-term employment).

With regard to the choice of employment forms, however, the two directions of the legal reforms must be assessed differently. If deregulation is attached to the regular employment relationship - such as is the case with the change of the law on protection against dismissal - evasive reactions (e.g. in the form of an increased utilisation of fixed-term employment

relationships) are less likely¹⁶. Protection against dismissal in Great Britain, which does not begin until after a relatively long probationary period of two years and is only weakly vested with legal rights, is a clear example of this. It provides a plausible explanation as to why in Great Britain less use is made of fixed-term employment relationships.¹⁷

If on the other hand the deregulations are geared towards an extended authorisation of atypical employment forms, this raises the question as to whether the additional scope for flexibility is needed and also whether it is taken advantage of. The fact that this is not certain is shown in the empirical studies on the regulation of fixed-term work in the Employment Promotion Act.¹⁸ The practical experiences with the new regulation document that neither the hopes of those who initiated the law nor the fears of those who opposed it have been fully confirmed. Firstly the desired additional hirings occurred which would presumably not have occurred without the new regulation or at least not until a later time, and secondly, as feared, some of the new hirings were made on a fixed-term basis although they would have been permanent relationships without the Employment Promotion Act, which can be classified as a company deadweight effect. In practice, however, the quantitative extent of the two effects remained far behind the expectations that were based on theory. This can probably be put down to the fact that enterprises use temporary forms of employment primarily as an addition to their core workforce in order to save adjustment costs by means of a higher level of flexibility in personnel matters (e.g. in the event of fluctuations in production or demand).¹⁹ In addition to this the motive of work trials without obligation and thus of better selection of staff also plays a key role with these temporary forms of employment.

4.3 Situation and development of the labour market

With regard to the employment forms that diverge from the regular employment relationship, unemployment must be regarded as a "push factor". This can be illustrated using the example of fixed-term employment relationships. In general from the employee's point of view a fixed-term employment contract has a serious disadvantage compared with a permanent employment contract: as a result of the fixed-term aspect of the agreement, protection against dismissal does not apply and the end of the employment relationship is agreed from the outset. However, the fixed-term employment relationship can be judged differently if unemployment is taken as the reference situation. Unlike an unemployed person, someone in fixed-term employment maintains contact to working life, gains new job experience, prevents his human capital from being devalued and receives an opportunity to prove him/herself. Another point in favour of taking on a temporary job is that if a worker has to apply for jobs while out of work s/he will have to fear passing on negative signals to employers. Temporary employment can therefore be seen as an aid for younger people entering the labour market for the first time (after training) and for older people re-entering the labour market (after unemployment or an interruption in employment). This also applies in a similar way for other "atypical employment forms " (such as temporary work via an

¹⁶ On the possible labour market effects of the new regulation of dismissal protection, cf. the report by Emmerich/Walwei/Zika, 1997 and Franz/Steiner/Buscher/Buslei, 1997

¹⁷ According to details (1996) from the Statistical Office of the European Union (EUROSTAT) the fixed-term rate (proportion of all employed persons who are in fixed-term employment) was clearly lower in Great Britain at 7% than in most of the other EU countries, which have fixed-term rates of 10% and above (incl. trainees).

¹⁸ Cf. Rogowski/Schömann, 1996 on this issue.

¹⁹ Rudolph/Schröder 1997; p. 113 ff.

employment agency or partial self-employment). Unlike with the leap from long-term unemployment to a regular employment relationship, a move which has become increasingly difficult, the hurdles for permanent integration into the labour market are being gradually reduced.

So-called "firm-specific employment pacts" are also a response to the difficult labour market situation. One option relevant in this context is to reduce a too high volume of work by means of more "accepted" part-time employment (see for example the agreed reduction of working hours at the VW car manufacturers). This is possible in particular in the event of permanently falling personnel requirements as a consequence of structural development processes in certain branches of industry (e.g. due to productivity increases caused by technical progress, or market saturation trends) as well as owing to sales problems of individual firms. What is probably also of importance for the ex-post and ex-ante development of employment forms in this context is the extent to which agreements about flexible annual working time models are made between enterprises and employees. If in the context of annual working time models a really large number of enterprises should go over to increasing individual working hours when there are plenty of orders and reducing working hours when orders are seasonally sluggish, this would reduce external adjustment requirements not only at micro-level but also at macro-level. As a consequence one could then expect enterprises to have less need for temporary forms of employment.

4.4 Level of unit wage costs

A change in unit wage costs is known to influence the opportunity costs of the factor utilisation. If labour costs per hour (as a total of the collectively agreed wages plus the statutory and company-specific non-wage labour costs) increase more sharply than productivity per hour, it is necessary to reckon with both a more intensive utilisation of labour and a substitution of labour by capital. The development of labour costs and their various components, however, does not only have an effect on the factor price ratio but also on the demand an enterprise has for various forms of employment. If for example the cost relations between different forms of employment shift, this is not only reflected in the factor utilisation ratio but also changes in the demand of enterprises (evasive reactions) must be expected.

This relationship can be illustrated by two examples. Firstly increasing (labour) cost pressure and stronger (international) competition induce enterprises and administrations to weigh up even more carefully which tasks should be performed within the company and which services should be bought in. The unmistakable outsourcing trends in the form of more intensive contracting out of work (contracts for services with self-employed people) or by means of more intensive utilisation of temporary employment agencies are contributing to the relative loss of significance of regular employment relationships. Moreover an increase in contracting out work can be used to avoid those collective agreements concerning remuneration or working hours which have proved to be no longer economically effective from the point of view of individual enterprises.

Another example is provided by the recent increase in social insurance contributions in Germany, which has led to an increase in the labour costs of employment subject to social insurance. As a result of this, employment forms that are not subject to social security

contributions have become relatively more attractive, as can be seen from the rise in marginal part-time employment or the increased amount of outsourcing in the form of contracts for work given to self-employed workers. Efforts aimed at reducing social insurance contributions (e.g. by financing benefits from taxes instead of from social insurance contributions and/or by focussing the social transfers more stringently on those who are really in need of assistance) would thus be an important contribution against the erosion tendencies seen in regular employment relationships.

4.5 Level of earned income and transfer income

As a mirror image of the demand side, where the level of labour costs forms part of the decision as to how great the volume of work needed by the enterprises is, the sum of the gross wage (net wage, taxes and employees' social insurance contributions) and the additional "social wage" (statutory and company-specific non-wage labour costs) is decisive for the supply decision. Analogously to the demand side, on the supply side, too, the level of the overall income and its division into net, gross and social wage not only influences opportunity costs (here those of leisure time), but also affects the choice of certain employment forms. It therefore seems plausible that with targeted reductions in social insurance contributions and taxes for low-wage earners, there would be a greater demand for jobs in the low-wage sector which is important for the employment of labour market problem groups.

The labour supply decision of workers involves not only the preference for leisure time but also the level of alternative transfer incomes (in particular social assistance). In the case of social assistance recipients the limited possibilities for earning additional income have recently come in for criticism. Thus the receipt of social assistance or unemployment assistance (especially in the case of families) can bring in more than the alternative of gainful employment in particular in relation to low earnings. A "social assistance trap" even emerges if most of the earned income that the social assistance recipient is able to obtain is deducted from the transfer payment. If the possibilities for additional income were improved by lowering - at least temporarily - the amount of transfer income deducted, this group's incentive to work would increase.²⁰ The diverse forms of atypical employment could smooth the way to a regular employment relationship especially for social assistance recipients. This is also true in particular of part-time employment, which in relation to a comparable full-time job is associated with a loss of gross income. Part-time work could be selected more frequently if there were an improvement in the possibilities for additional earnings with reference to the overall income.

5 Conclusions and consequences for labour market prognosis

²⁰ A permanent subsidisation of low earnings is problematic in many respects from an economic point of view. The more transfer that is left when earned income and social benefits are drawn at the same time, the higher the expected costs are for the social insurance funds and, if the transfer were granted permanently, the lower the incentive would be for those affected to look out for more highly paid employment. In order to counteract these problems, it would be better to provide a temporary "entrance benefit" to help people into regular employment (cf. on these issues: Jerger and Spermann, 1997)

The report has shown that the legal framework - differently from what is often implied - is only one key factor in explaining the change in employment forms that is visible empirically. It defines the scope for action for those involved. The extent to which the given possibilities for action are utilised, however, depends on a number of factors which are only discussed relatively briefly in this report (e.g. labour costs, net income obtainable, aspects of structural change etc.). This also explains why no clear results come to light in an international comparison of a correlation of the degree of flexibility of the legal framework of the labour market on the one hand and labour market reality on the other hand.²¹ There are thus no indications that a flexible legal framework for the labour market alone would necessarily be accompanied by a greater diversity of employment forms or even by more employment and less unemployment.

In general the observations have also shown that it is necessary to warn against any determinism in the development of employment forms. Thus for example the Bavarian and Saxonian Commission for Issues Concerning the Future (die Kommission für Zukunftsfragen der Freistaaten Bayern und Sachsen) assumes that if the trends observable in the last two decades are projected forward, the ratio of "regular to non-regular employment relationships" in the year 2010 will no longer be two to one as it is here today, but may be one to one.²² Before prognoses are made regarding the direction or even the strength of certain development processes it is necessary to carry out more extensive analyses of the determinants for the process of change. Thus the shift-share analyses on the influence of the sector-specific structural change and the changed gender-specific composition of the labour force provides clear indications that changes in behaviour on both sides of the labour market (incl. the framework for action defined by legal regulations, which must be taken into consideration) represent a determinant of developments in employment forms which must not be underestimated. The determinants of the identified changes in behaviour need to be examined even more closely. This includes the further development of the conceptual and theoretical considerations started here on the change in employment forms as well as a continuation of empirical analyses (also with the aid of other data sources).

On the basis of the observations made so far at least two scenarios seem conceivable with regard to further expected changes in employment forms: (1) increasing loss of significance of the regular employment relationship as a result of even more diversity in employment forms, (2) reform of the regular employment relationship (e.g. by lowering social insurance contributions or reducing regulations that are not longer appropriate or have become outdated) with the consequence of slowing down the signs of disintegration. It is not yet possible to predict today which of the two scenarios will become established in the future labour market reality. It seems to be clear, however, that policy and the two sides of industry have scope for action in this field and can influence development processes. The task of labour market research here would be to develop a theoretical and empirically sound framework to serve as a basis for rational decisions on the arrangement of employment forms. The above considerations are a first step in this direction.

²¹ Cf. OECD Jobs Study 1994

²² Kommission für Zukunftsfragen der Freistaaten Bayern und Sachsen, 1996, part I, p. 62

References:

Beckmann, P./Kempf, B. (1996), Arbeitszeit und Arbeitszeitwünsche von Frauen in West- und Ostdeutschland, in: MittAB 3, p.388 ff., Nürnberg

Bogai, D./Classen, M. (1998), Abschaffung der Sozialversicherungsfreiheit für geringfügige Beschäftigung? in: Sozialer Fortschritt Vol. 47, No. 5, May 1998, p. 112 ff.

Buttler, F./Walwei, U. (1994), The Employment Contract: Cooperation Requires Stability, IABtopics No. 7, Nürnberg

Delsen, L. (1995), Atypical Employment: an International Perspective. Causes, consequences and policy, Wolters-Noordhoff, Groningen

Dietrich, H. (1996), Empirische Befunde zur "Scheinselbständigkeit". Zentrale Ergebnisse des IAB-Projektes "Freie Mitarbeiter und selbständige Einzelunternehmer mit persönlicher und wirtschaftlicher Abhängigkeit", IAB Werkstattbericht No. 7 of 25.11., Nürnberg
Langfassung: Ed. Bundesministerium für Arbeit und Sozialordnung, in: Forschungsbericht 262, 12/96

Dietrich, H. (1998), Einsatz freier Mitarbeiter 1994 und 1997 - Befunde aus dem IAB-Betriebspanel, Vortrag Workshop Modellbildung und Simulation 3-4 April 1998, Nürnberg, Manuscript

Emmerich, K./Walwei, U./Zika, G. (1997), Beschäftigungswirkungen aktueller rechtspolitischer Interventionen im Bereich des Sozial-, Arbeits- und Steuerrechts, in: WSI-Mitteilungen 8, Düsseldorf

EUROSTAT, Erhebung über Arbeitskräfte (1996)

Franz, W./Steiner, V./Buscher, H./Buslei, H. (1997), Arbeitsmarktflexibilität und Beschäftigung. (Gutachten für das Bundesministerium für Wirtschaft). Zentrum für Europäische Wirtschaftsforschung GmbH (Ed.), Mannheim

Grip De, A./Hoevenberg, J./Willems, E (1997), Atypical employment in the European Union, in: International Labour Review, Vol. 136, No. 1(Spring), Geneva

Jerger, J./Spermann, A. (1997), Wege aus der Arbeitslosenfalle - ein Vergleich alternativer Lösungskonzepte (offprint), in: Zeitschrift für Wirtschaftspolitik, Vol. 46, Köln

Knieps, G. (1988), Theorie der Regulierung und Entregulierung, in: Horn, M. (Ed.), Deregulierungsmaßnahmen in den USA: Schlußfolgerungen für die Bundesrepublik Deutschland, 39 ff., Baden-Baden,

Kohler, H./Spitznagel, E. (1995), Teilzeitarbeit in der Gesamtwirtschaft und aus der Sicht von Arbeitnehmern und Betrieben in der Bundesrepublik Deutschland, in: MittAB 3, p.339 ff., Nürnberg

Kohler, H./Rudolph, H./Spitznagel, E. (1996), Umfang, Struktur und Entwicklung der geringfügigen Beschäftigung - Eine Bestandsaufnahme -, IAB-Kurzbericht No. 2 of 31.1., Nürnberg

Kommission für Zukunftsfragen der Freistaaten Bayern und Sachsen (1996), Erwerbstätigkeit und Arbeitslosigkeit in Deutschland. Entwicklung, Ursachen und Maßnahmen. Teil I: Entwicklung von Erwerbstätigkeit und Arbeitslosigkeit in Deutschland und anderen frühindustrialisierten Ländern (October 1996);

Meulders, D./Plasman, O./Plasman, R. (1996), Atypical work in the European experience, in: Transfer European Review of Labour and Research, Volume 2, Number 4, Antwerp

OECD (1994), Evidence and Explanations, Part 2 : The Adjustment Potential of the Labour Market, in: The OECD Jobs Study, Page. 63 - 109, Paris

Okun, A. M. (1981), Prices and Quantities, A Microeconomic Analysis, Oxford

Paqué, K. H. (1989), Die soziale Dimension des EG-Binnenmarktes, in: Die Weltwirtschaft, Vol. 1, 112-123

Rogowski, R./Schömann, K. (1996), Legal Regulation and Flexibility of Employment Contracts, in: International handbook of labour market policy and evaluation, Cambridge, S. 623-651

Rudolph, H. (1996), Befristete Beschäftigung von jüngeren Arbeitnehmern stark gestiegen, IAB-Kurzbericht No. 1 of 22.1., Nürnberg

Rudolph, H. (1998), "Geringfügige Beschäftigung" mit steigender Tendenz, Erhebungskonzepte, Ergebnisse und Interpretationsprobleme der verfügbaren Datenquellen, IAB Werkstattbericht No. 9/21.8.1998, Nürnberg

Rudolph, H./Schröder, E. (1997), Arbeitnehmerüberlassung: Trends und Einsatzlogik, in: MittAB 1, p.102 ff., Nürnberg

Schupp, J./Schwarze, J./Wagner, G. (1997), Erwerbsstatistik unterschätzt Beschäftigung um 2 Millionen Personen, in: DIW Wochenbericht 38 of 18.9., p.689 ff. Berlin

Walwei, U./Werner, H. (1996), More Part-time Work as a Cure for Unemployment? Results of an International Comparison, IABtopics No. 16, Nürnberg