The feasibility of policies encouraging more part-time employment as a cure for unemployment in Germany was examined through a comparison of the employment policies and labor markets of selected Organization for Economic Development (OECD) countries and the United States. OECD labor force statistics for the years 1972-1992 were analyzed to determine the following: patterns of part-time employment among men and women; the effect of part-time employment on the labor market; and factors determining the evolution of part-time work (structural changes in various sectors of the economy and gender-specific characteristics and behavioral aspects of employment). On the basis of the international comparison, it was concluded that a considerable potential for part-time work is still lying dormant in Germany. A shift-share analysis established that even anticipated structural shifts toward a service society and the expected increase in labor force participation by females will not, by themselves, drastically expand part-time work. Several policy approaches to promoting part-time work were suggested, including making child care and parental leave more available and offering financial incentives to encourage the creation of more part-time jobs. (A description of the shift-share analysis procedure is appended, and the 16 papers published in this series are listed.) (MN)
More Part-Time Work As a Cure for Unemployment?

Results of an International Comparison

Ulrich Walwei/Heinz Werner
The IAB is the research division of the German Bundesanstalt für Arbeit where scientists of different economic and social science disciplines work. The range of research topics can be characterized briefly as follows:

- observation of and forecasts for the German labour market
- labour market statistics
- labour market theory and policy
- evaluation of employment programmes
- regional and international labour markets
- occupation sociology
- research in skills and qualifications
- technological development and the labour market
- business and personnel management
MORE PART-TIME WORK AS A CURE FOR UNEMPLOYMENT?

- Results of an International Comparison -

1 Employment policy background
2 Development of part-time work in the OECD countries
3 The effect of part-time work on the labour market
4 Factors determining the evolution of part-time work
5 Conclusions for labour market policy
6 Appendix

* Researchers of the Institut für Arbeitsmarkt- und Berufsforschung
1 Employment policy background

Employment policy-makers have been discussing part-time work for a long time. This paper intends to answer two questions based on an international comparison; which are the decisive elements for promoting part-time work?, and can the promotion of part-time work contribute significantly to the creation of jobs or the reduction of unemployment?

Optimistic forecasts assume that a considerable potential for part-time work is still lying fallow in our society. This is supported by polls indicating that many full-time workers would be interested in part-time work and that many companies see economic advantages in employing more part-time workers. The management consultant McKinsey was particularly daring in stating that almost 2m additional part-time jobs would be created, if all of the expectations of employers and employees were to come true. Model calculations of the Institut der deutschen Wirtschaft produced similar results, assuming that the high rate of part-time work existing in the Netherlands would be applicable in the Federal Republic of Germany as well.

Part-time work is mainly an expression of changes in employment behaviour, such as the desire to make work more compatible with other activities like family life, education, hobbies etc. Part-time work may also be a transition phase between two stages of working life: it might make it easier for beginners and returnees to get (re)started; or it might ensure a smooth transition from active life to retirement. More part-time work does, however, not only give rise to hopes, but to fears as well. It might be an involuntary choice, because there are no employment alternatives. In addition, these jobs may be less protected under social security and labour law, such as ‘marginal’ part-time work, i.e. below the minimum levels for such protection.

Part-time work may also be in the company’s interest. It facilitates the adjustment of manpower capacity to the requirements of production or customers. Flexible deployment of part-time workers may help to save expensive overtime. Another factor that is frequently pointed out is that part-time workers are more productive than full-time workers. The main reasons being that full-time workers become more tired and sick more often. But there are also reasons preventing companies from using any or more part-time workers, such as the difficulty of splitting certain work assignments or the increased coordination and administration required for a higher number of employees.

2 Development of part-time work in the OECD countries

An international comparison reveals considerable differences between the extent and development of part-time employment in different countries. Figure 1 describes the situa-

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3 See B. Hof: Von der Voll- zur Teilzeit. Internationale Erfahrungen und Perspektiven (From full-time to part-time. International experience and perspectives), in IW-TRENDS, 21st year (1994), No. 1, p. 1
tion in selected countries between 1973 and 1993. The number of part-time workers, self-employed and assisting family members is related to the total active population. In all of the countries considered part-time rates have been moving more or less steeply upward since 1973. Looking at the period 1983 to 1993 lower part-time rates are not impossible either (e.g. USA and Denmark). In 1993 West Germany held an average position at 17%.

![Part-time employment in selected OECD countries 1973-1993](image)

In Germany - to a higher degree than in most other countries - part-time work is predominantly a female domain (Fig. 2). The part-time rate in the Mediterranean countries is lower, in the Scandinavian countries and some other industrial countries like the UK, USA and the Netherlands it is higher. The big exception are the Netherlands, where more than 60% of women and more than 15% of men are working part-time. In addition, their increase in part-time work was by far the highest in the western world between 1973 and 1993.

The data in the Labour Force Surveys for part-time work are mainly based on the workers' self-assessment, i.e. they can categorize themselves as working part-time. Because there are many different types and forms of part-time jobs, as said above, there might be problems of demarcation and a certain distortion of the rates. Full-time jobs that do not extend over the entire year (e.g. certain types of seasonal work), for instance, are considered 'flexible part-time work' in the Netherlands. Another (recording) problem is the extent of so-called 'marginal employment', i.e. part-time jobs for a minor number of

hours. Both in the Netherlands and in Germany much less of the (marginal) part-time jobs had been recorded in 1983 than in 1993, because these workers did not always consider themselves as active. The corrections of recording methods made in this period explain a large part (in both cases slightly more than one third) of the increase in the number of part-time workers and the part-time rate.

Figure 2: Part-time rates for men and women in selected OECD countries (1993)

Source: see data for figure 1

3 The effect of part-time work on the labour market

3.1 Employment

The inadequate employment intensity of economic growth is considered to be one of the reasons for the employment malaise Western Europe is suffering from. The distribution of the working time available in the national economy to a larger part of the labour force, e.g. in the form of more part-time work, might help to keep or get more people employed and avoid or reduce unemployment.

Yet another indicator for the assessment of a national economy’s capability of creating employment is the volume of work (average working time per worker per year multiplied by the total number of workers). Volumes of work can be calculated and contrasted with the development of employment for a number of countries (Fig.3). This then permits us to determine e.g. whether the increase in employment (in terms of numbers of employed people) has meant an increase in the national economy’s volume of work or whether the

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6 Employment intensity indicates the percentage by which employment increases (decreases) when economic growth increases (decreases) by 1%. This relationship e.g. shows to which extent employment is likely to go up during a boom or how high the growth rate must be to obtain a certain growth in employment (for this also see European Commission: Growth, Competitiveness, Employment (White Paper), Brussels- Luxembourg 1994).
same volume was distributed to more people. In the latter case of a redistribution of the existing volume to more workers this might entail either a general reduction in working hours (for full-time workers) and/or an increase in part-time work.

Figure 3: Employment, volume of work, economic growth 1975-1992
(Index values, 1975=100)

USA

Germany (West)
In most European countries employment has increased only slightly more than the volume of work since 1975. Again the Netherlands are an exception. Their increase in employment is higher than in any other European country. This growth was generated by three factors: firstly, (full-time) annual working hours were generally reduced. They fell from 1886 hours in 1983 to 1796 hours in 1992. During the same period the number of full-time workers went up from 3,445,000 to 3,855,000. Secondly, the working hours available in the national economy were distributed to more people by way of part-time work. The number of part-time workers soared from 908,000 to 2,085,000. This is expressed in the higher part-time rate. Thirdly, the volume of work in the national economy grew as well and to a much greater extent than in all other European countries.

Things look differently in the USA. The considerable increase in employment was not accompanied by less hours. Employment and volume of work developed almost in parallel. Since 1975 average annual working hours per worker even went up slightly, the increase in employment is not due to more part-time work or shorter working hours of the full-time workers. This is confirmed by the almost unchanged part-time rate for the USA in the same period (Fig. 1). Therefore the consequences in the US were not the same as in the European countries: in the latter the GDP was distributed to more people in keeping with the reduction of personal working hours (full-time and/or part-time). In the USA, however, GDP was distributed to more people while working hours and part-time

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rates remained almost unchanged over the period.\textsuperscript{3}

3.2 Part-time work and a relief for unemployment

As a rule, it is certainly true that part-time work is always better than unemployment. In contrast to the unemployed, part-time workers are still involved in active life, might gain new experiences on the job and achieve qualifications which prevent the devaluation of their human capital and provide them with an opportunity to prove themselves. The decisive point here is, whether a certain part-time employment offered will be a bridge to allow permanent integration into the labour market or whether it will trigger or favour an unsteady occupational career.

How can part-time work affect unemployment in view of the international comparison? When comparing the part-time rate for each country with their respective unemployment rates, hardly any relationship will become apparent, i.e. countries with much part-time work are not necessarily those with low unemployment rates. A certain correlation does, however, show when comparing the part-time rate of women and their respective unemployment rates (Fig. 4). This gender-related selection is justified, because the majority of part-time workers are women and therefore the effect of part-time work should be particularly obvious in female activity and unemployment.

\textbf{Figure 4: Part-time rates and unemployment rates for women in 1993}

\includegraphics[width=\textwidth]{Figure4.png}


\textsuperscript{8} The result is that in certain cases US workers' real wages are much lower than those of their European colleagues (for this see OECD: Economic Outlook, Paris 1994, p.23). Real wages even went down for lower and many medium-range income categories in the US (also see P. Auer: Das amerikanische Beschäftigungswunder <The American Employment Miracle>, in: European Commission: INFORMISEP no. 49/1995, p. 21 ut.seq.)
A comparison of Dutch and German unemployment rates e.g. shows that the curves look similar, although they are at different levels. Unemployment persisted at a higher level in the Netherlands than in Germany at all times and the difference has hardly diminished in the course of time. This is, however, only true for the total unemployment rate, not for that of women (Fig. 5): their rate was consistently higher in the Netherlands than in Germany from 1979 to 1991. But after 1988 the unemployment rates of women were approaching each other. Since 1993 the Dutch female unemployment rate has been lower than the German one which is - at least to some extent - due to the increase in part-time work.

Figure 5: Female unemployment rates in Germany (West) and in the Netherlands 1971 - 1994


Even at times when the economy improves the accompanying increase in employment is met from the pool of the unemployment only to a certain extent. The EC Commission determined that in the EU only about 30% of the unemployed benefited from the employment boom 1985-1990\(^9\). Most of the newly employed had not formerly been unemployed but were people who were not part of the labour force and who now began or returned to active life. The same mechanism will probably apply when more part-time jobs are offered. The Netherlands can serve as a model for this. The rapid catching up of the female activity rate was the driving force behind the boost of part-time work. In the mid-seventies the Dutch female activity rate had still been the lowest of all OECD countries. Now they are holding a middle rank among the EC countries.

In summary it can be said that a larger number of part-time jobs offered by enterprises will trigger responses by different groups: those already in employment, the unemployed or persons looking for work for the first time (e.g. young people) or again (e.g. women

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with children). Depending on the availability of labour and the extent to which their qualifications coincide with the job profiles, certain groups of persons will take those part-time jobs. If the unemployed have e.g. been subject to a selection process during long-lasting high unemployment, they will have fewer chances than those entering into or returning to the labour market. Their number also depends on demographic factors and employment behaviour. Employment behaviour is expressed in the labour force participation rate, i.e. the percentage of economically active persons of the total population of working age. If, for instance, female activity is still low - everything else being equal - the potential of available manpower is higher than in case of a relatively high activity rate. When activity rates are low more of an employment boom can be absorbed by discouraged workers than by unemployed. Compared to the USA, Japan, Great Britain and the Nordic countries the activity rates in most other European countries are lower. Next we want to ask about the factors which affected the development of part-time work and might be relevant for the future of this type of employment.

4 Factors determining the evolution of part-time work

4.1 Structural changes in the different sectors of the economy

A comparison of part-time rates in different sectors of the economy based on the data of the European Labour Force Survey shows the highest rates for the service sector and the lowest for the manufacturing sector. Shift-share analyses can be used to determine to which extent sectoral changes in employment between agriculture, manufacturing and services affected the dynamics of part-time work. The question is whether the increase of part-time work was the result of shifts in the industrial composition (structural effect) or to the penetration of part-time work into some or all sectors (diffusion effect). The structural effect is calculated by assuming that the part-time rates per sector remain unchanged over time. When calculating the diffusion effect, in contrast, the sectoral shares of the reference year are kept constant and multiplied by the current part-time rates. Normally a small quantity remains which results from combining both (so-called 'interaction term'). The methodology is set out in the appendix to this paper.

The data provided by the European and US labour force statistics permit shift-share analyses of the sectors' structural changes (Fig. 6). Accordingly the major driving force for the development of the part-time rate is the diffusion effect. Independent of sectoral shifts companies and workers increasingly agree on part-time employment, which indicates a change in attitude. Although a positive structural effect can be noted as well, it is relatively minor. Only in the UK the structural effect of about one third is significant, because of the strong growth of the part-time-intensive service sector and the rapid recession of the low-part-time manufacturing sector. The positive structural effect prevented an even stronger decline of the part-time rate in Denmark and the USA. Mention must also be made of the negative structural effect in Italy. It was caused by the lower employment in agriculture which is the heaviest part-time sector in Italy, while jobs were created in the less part-time-intensive sectors (manufacturing and services).

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IAB Labour Market Research Topics 16 (1996)
4.2 Gender-specific characteristics of employment

The part-time rates of women (especially married women) are generally higher than those of men. In many EU countries part-time work for men is still insignificant (see also Fig. 2). As in the case of structural change, shift-share analyses also help to determine the effect of changes in gender-specific employment structure on the increase of part-time rates. The point is to find out whether growing part-time rates are due to the changes in the proportion of working men or women of the total labour force (structural effect) or rather to the changing attitudes of certain groups of workers (diffusion effect).

These analyses again indicate that it is the diffusion effect that is mainly responsible for the growth of the part-time rate (Fig. 7). Even if the gender-specific characteristics of employment had remained unchanged over time part-time work would have developed as it did to almost the same extent. In most countries the larger part of the increase in part-time work and for two countries (DK, US) also their decline is explained by changing attitudes. Generally the structural component itself harbours a positive trend. Striking is the negative structural effect in Denmark. It is due to a disproportionate increase of the number of men in the total number of employed persons.

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11 Williams found out for the USA that the decline of the part-time rate in the eighties was mainly caused by the fact that women switched more often from part-time to full-time than the other way around. Also Sundström has the same findings for the development of part-time employment in Sweden since 1982 (see D. Williams: Women's part-time employment: a gross flows analysis, in: Monthly Labor Review, 118th year, No. 4, p. 36-44); M. Sundström: Part-time work in Sweden: Trends and Equality Effects, in: Journal of Economic Issues, 25th year, No.1, p. 167-178
4.3 Behavioural aspects

The shift-share analyses of the two sections above seem to indicate that part-time work developed mostly independent of sectoral shifts and changes in gender-specific employment structure. Even without such shifts part-time work would have evolved roughly as it did. This is caused by shifts in preferences in certain sectors of the economy (mainly in services) and in certain groups of the labour force (mainly women). The next question that follows then is which factors are generally promoting the diffusion of part-time work on both ends of the market.

The results of the Labour Force Survey provide a clear view of the motives of the part-time workers. The majority of part-time workers says that they chose this type of employment voluntarily. There may be a permanent or a temporary interest in part-time work, if full-time work would not be compatible with other activities. This might be the family (e.g. child rearing, nursing an older family member), education (e.g. university studies or training) or self-employment (e.g. for farmers).

Then there are cases in which people opt for part-time work, because no full-time work is available. Involuntary part-time work means that there is no alternative due to a lack of supply of the desired full-time work.12 Related to the total labour force this was most frequently the case in the USA in 1993 (where the rate of involuntary part-timers was over 5%), next were France (4.8%), Denmark (4%) and Belgium (3.7%). In countries in which the total part-time rate is still relatively low, e.g. in Italy, such involuntary part-time work is relatively important. It applies to one third of all part-timers. Certainly this phenomenon has to be considered in the context of the incomes which are still low in these countries. To make a living most people there must have full-time employment.

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The same explanation applies to the still minor significance of part-time employment in the East-German federal states.

The analysis of the expansion of part-time work between 1983 and 1993 shows that it is mainly caused by the growing numbers of voluntary part-time workers. However, subject to certain national conditions it can also be caused by growing numbers of involuntary part-time workers (Fig. 8). In most countries (I, West Germany, NL, UK) the rate of involuntary part-time workers underwent only minor changes; in the USA the total part-time rate and the rate of involuntary part-time workers fell almost identically. In three countries, however, (B, DK and particularly F) involuntary part-time employment gained more importance and accounted for a quite significant part of the expansion of part-time employment.

![Figure 8: Development of voluntary and involuntary part-time work in selected OECD countries 1983 - 1993](image)

Comparative international company surveys indicate that more part-time work makes the organization of work more flexible and efficient and therefore manpower planning can be fine-tuned to suit production requirements. It is interesting to note that potential direct cost advantages (e.g. by lower hourly wages or less social security payments and contributions) are surprisingly rare as an incentive for companies to use part-timers. The UK is an exception, here lower social cost (statutory and company) and lower wages are seen as a significant advantage of part-time employment. The survey's results for the other countries are nevertheless interesting, because they show that generally putting full-time and part-time employment on an equal footing will not necessarily run counter to the company's interest. Quite the opposite, if part-time work becomes more acceptable to employees, because it is voluntary and governed by equal conditions, it will also become

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more acceptable for employers, because better candidates will apply for part-time jobs, because selection will not be as negative, which will in turn help companies to build up an effective buffer to ensure flexibility.

5 Conclusions for labour market policy

The results of this international comparison indicate that a considerable potential for part-time work is still lying dormant in Germany as well. It cannot be awakened over night, though. According to the results of the shift-share analyses even expected structural shifts towards a service society and expected stronger female activity will by themselves not drastically expand part-time work. The dynamics are determined by the behavioural aspect to a much greater extent, i.e. 'flexibility in the mind' of the parties to the employment contract and the associations representing them. That this takes time is a truism, therefore a fast increase of voluntary part-time work is unrealistic, albeit desirable. The growth will also be slowed down by the fact that when work is to be distributed to more people qualifications supplied and qualifications demanded rarely coincide. Even if it was economically feasible to divide jobs, the qualifications of the two - or even more - workers have to fit the split job.

Not only because of its presumably slow growth the promotion of part-time work may not be considered as a 'panacea' to substantially reduce unemployment, though. More part-time work which has a similar effect to a general reduction of working hours (for full-time workers) without compensation in the form of higher wages, usually means higher productivity of the individual worker. If the newly created part-time jobs differ only slightly from full-time jobs - as workers often desire or operations require (e.g. the model of the German auto-manufacturer VW) -, the employment effect for the entire economy and thus the decrease of unemployment will only be minor because of this higher productivity. If, however, the additionally created part-time jobs contrast more sharply with full-time jobs (in terms of working hours), there might be more employment, but as the example of the 'part-time world champion' Netherlands shows, this results only partly in a reduction of unemployment, while most of the new jobs will attract many individuals who would otherwise not form part of the labour force.

By saying this we do not want to question the reasonableness of initiatives to promote part-time jobs. However, their first and foremost advantage will not be a reduction in unemployment, but rather the safeguarding of existing jobs, as a balance of interest between employers and employees to boost the productivity of the national economy as a whole and its individual parts and to diminish the number of discouraged workers which is in the interest of social policy.

There are a number of approaches to promoting part-time work. The experience evident from international comparisons can serve as an example here. They show that one of the criteria used by women to decide on full-time, part-time or no work at all is the avail-

14 See OECD: The OECD Jobs Study..., op cit., part II, p. 100
ability of child-care institutions. It is said that the relatively low share of the so-called ‘marginally employed people’ in Sweden is due to the relatively ample supply of child-care institutions, mostly state-financed. The alternatives for parental leave may also favour more part-time work. If parents will e.g. be entitled to a (part-time) leave this will affect the demand for part-time jobs.

The creation of part-time jobs and the way they are filled can be directly promoted by giving financial incentives. These might aim at easing the burden of company labour cost when hiring part-time workers. In France (since 1993), for example, the employer’s social security contributions are cut by 30-50%, when a new part-time worker is hired or a full-time worker switches to part-time work. Financial incentives may also be used to make it easier for workers to decide in favour of part-time work. In the Netherlands (since 1994) (similar to Germany) part-time workers who switch from full-time to part-time work will remain entitled to (full-time) unemployment benefits for three more years.

The incentives may also be directed at certain target groups, such as unemployed or young or old workers. An example is the scheme introduced in Belgium in 1982, entitling unemployed people who take up part-time work to the continued receipt of (part-time) unemployment benefit. This scheme ended in 1995, though, because it turned out that the people simultaneously working part-time and receiving benefits showed little inclination to return to full-time work. Then there are a number of legal and/or collectively-agreed regulations (for instance in the Netherlands) which want to make it easier for young people to get started on the labour market with part-time work and to make retirement arrangements for older people more flexible.

Although there are a number of potential alternatives which will actively promote part-time work, one should not forget that the decisive element for the expansion of part-time work remains the behaviour of the players on the labour market. Its future development depends mainly on the achievement of a balance of interests between them. The important role that institutions can play here means that they support or at least do not impede desirable voluntary part-time employment contracts and they try to avoid involuntary ones as much as possible or at least to limit them to sensible exceptions. As the biggest national employer government should spearhead the expansion of part-time work to influence the behaviour of the players on the labour market and set a positive example.
Appendix

Shift-Share-Analysis

The shift-share decomposition in section 4 is based on the identity that, at any point in time:

\[ N_i = \sum_k a_{ik} b_k N \]

where
- \( N_i \) is the level of part-time employment
- \( a_{ik} \) is the share of part-time employed in industry \( j \)
- \( b_k \) is industry \( k \)'s share of total employment
- \( N \) is total employment

From this it follows that the percentage change of part-time work over the time period under study is:

\[ \Delta \left( \frac{N_i}{N} \right) = \sum_k a_{ik} \Delta b_k + \sum_k b_k \Delta a_{ik} + \sum_k \Delta b_k \Delta a_{ik} \]

where
- \( \sum a_{ik} \Delta b_k \) measures the structure effect
- \( \sum b_k \Delta a_{ik} \) measures the share effect
- \( \sum \Delta b_k \Delta a_{ik} \) is the interaction term

The decomposition in section 4 is based on the same identity, while \( a_{ik} \) and \( b_k \) have to be defined differently:

- \( a_{ik} \) is the share of part-time employment in demographic group \( j \)
- \( b_k \) is demographic group \( j \)'s share of total employment
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