

**Future of Labour - Future of Women?
Employment Opportunities of Women in Western Germany
According to Activities and Qualification Levels until 2010**

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1 Problem and study approach

The focus of attention of macroeconomic projections concerning the employment trend has long been non-gender-specific statements regarding the future number of jobs. Depending on the activity-specific differentiation, inferences were then drawn concerning the overall qualification demands expected. Although women and men continue to have different requirements regarding qualification and availability on the labour market, this has so far been ignored when estimating future employment opportunities. Statements about options on the labour market that differ in gender-specific respects have been excluded or not observed.

However, as even the very recent employment trend has shown, men and women have been affected differently by changes in the structure of activities and the economic structure as well as by changes in the extent of employment (full-time/part-time relation) both as regards cuts in old jobs and the creation of new ones (Figure 1). For example, 1.8 million jobs were lost in the male-dominated manufacturing industry in western Germany between 1991 and 1997. Almost three quarters of those jobs were held by men. In contrast, in the - predominantly personal - services sector 1.4 million new jobs were created, just under three quarters of which benefited women. Thus, unlike in previous years, on balance just under 0.7 million men lost their jobs in western Germany in this period, whilst just under half a million additional jobs were created for women - even if these were often in the part-time sector which is not subject to social security contributions (Engelbrech 1999). The situation of women overall and in comparison with men appears to be considerably more negative in eastern Germany.

For the future, too, changes in activities, working time and structure are expected to prove different for men and women. This is forecast here in a first stage for western Germany. The study goes into the question as to what employment opportunities men and women can expect in full-time and part-time jobs in the individual fields of activity and economic sectors.

What is used as a basis for this is the employment projection up to the year 2010 according to employment extent, activities and qualification levels, which Prognos AG carried out on commission for the Federal Employment Services and in close co-operation with the Institute for Employment Research (IAB)¹. Here the employment trend is explained above all by means of the following determinants:

- development of the economic sectors
- changes in the activities
- shifts from full-time to part-time employment.

Thus Prognos has extensively recorded technical-organisational and socio-economic influences and translated them into their effects on the structures and requirements of the activities. By reducing the data to its component parts, the development of labour according to activity requirements is split up into (a) an economic structure effect and (b) an activity structure effect:

- The *economic structure effect* shows what influence the changed goods and services markets (market conditions) have on employment in the individual sectors of the economy (demand-orientated).

¹ As early as 1985 results were presented on this subject from the study "The future of the employment landscape" with a time horizon of 2000, and in 1989 results were presented from the study "Employment landscape up to 2010" with a time horizon of 2010.

- The *activity structure effect* demonstrates how technical-organisational changes (production technology and structure of the organisation) affect the activity structures in the individual sectors (production-orientated).

In addition to this, the employment structure of the 1995 microcensus was used to forecast the number of full-time and part-time jobs according to activities and qualification levels, taking into account any expected changes in the individual economic sectors for the projection years of 1997 and 2010 (Schüssler et al. 1999, Weidig et al. 1999, Schnur 1999, Dostal/Reinberg 1999). No statements regarding the gender-specific employment trend were made here.

2 Model assumptions of the Prognos projections concerning the overall employment trend

a) General development trends

The basis of the projection is the Prognos Deutschland Report 2, a detailed analysis of the demographic and economic development for the periods 1980, 1991, 1998 to 2020, which was published at the end of 1998. From this it can be seen that the level of the future economic growth as well as the development of the individual branches of the economy were not the result of an autonomous development, but depend on a large number of determinants that act in combination with differing intensities and directions. In particular the following developments were taken into account here:

- the expected effects of **German unity** on the economy and economic policy in the next 20-30 years,
- increasing competition which is associated with the stronger **integration of Europe** and thus with greater pressure on domestic costs and wage costs,
- further progress in **information and communication technology** are leading to restructuring of the international division of labour and new occupational images and activities are being created,
- conflicting effects of **product innovations and productivity development**, with the result that in the medium term unemployment will not decrease lastingly,
- the inevitable expansion of the markets and **internationalisation** of activities are leading to production centres being moved abroad and thus also to stronger dependence on suppliers,
- with more **environmental pollution**, sectors with a high demand for raw materials and energy are losing significance,
- the **ageing society** is having serious consequences for demand and employment in the economy as a whole,
- the **qualification level** of the workers is increasingly coming to the fore as a production factor and demands permanent training owing to the shorter half-life of the utilisation possibilities of available knowledge.

All in all Prognos assumes that the labour market situation between 1995 and 2010 does not improve fundamentally. However, the changes in the job structure according to activities, economic sectors and according to full-time/part-time work in each field of activity until 2010 are similar to those in the past (1985-1995). In western Germany between 1995 and 2000 job losses totalling more than half a million (-540,000) were expected, which was also confirmed by the order of magnitude in the ex-post examination. After this, however, Prognos sees a

slightly positive development with an increase in employment between the years 2000 and 2010 of more than a quarter of a million (270,000)².

b) Development of activities

The shifts in the activity structure observed so far show that the trend towards a service society can be seen not only from the growing importance of the service sectors but also from the jobs themselves. In the future, too, the number of jobs located directly or indirectly in production and manufacture will fall distinctly. At the same time service activities are gaining importance in all sectors of the economy. To sum up, according to Prognos the following employment trends can be expected between 1995 and 2010.

Negative employment possibilities in production-orientated activities:

- Job losses in the fields of activity “**extraction/manufacture**” as a result of the change in the economic/technical structure.
- A decline in employment in the fields of activity “**setting up/servicing machinery**” and “**repairing**”, above all as a result of the continuing manifest collapse in employment in the sector-specific key branches.

Positive employment possibilities in service activities in some cases also with reverse developments:

- Increased competitive pressure leads to innovation pressure, with the result that an increase in the importance of “**research and development activities**” is to be expected.
- As a consequence of technical-organisational rationalisation effects, “**office activities**” will benefit to a lesser extent from the overall positive service trend.
- In the case of “**commercial activities**”, however, similar rationalisation effects are clearly over-compensated by increasing inter-industry and international links.
- In contrast, negative rationalisation effects are of more consequence for “**storage and transport activities**” than the positive effects resulting from increasing trade relations.
- Owing to increasing technical surveillance possibilities, “**general security activities**” will decline slightly in spite of increasing demand.
- Corresponding with the increase in production-orientated services, “**organisation and management activities**” at clerical and executive level will increase clearly across all sectors of the economy.
- More transparent employment relationships and a decline of the shadow economy are leading to an expectation of a slight increase in “**cleaning and catering activities**”.
- A decline in the field of activity “**teaching/instructing**” is expected above all as a result of a lack of public funds.
- In a further ageing society there will be increases in employment in “**caring activities**” in spite of scarce public funds.
- In the context of the globalisation and internationalisation of an increasingly complex economy and society “**consultation and advisory activities**” are “going with the flow” of the positive service trend.

² This prognosis is based above all on expected changes in the world economy and European changes, as well as consequences resulting from the technological and demographic changes in Germany as a whole, but also on an increasing shift from full-time to part-time jobs.

c) *Development according to economic branches*

As a consequence of the structural changes in the economy, virtually all branches of the economy outside the service sector have to reckon with job losses in the future. This affects in particular the entire manufacturing industry with the loss of some one million jobs, agriculture with 170,000 jobs and energy and mining with a good 100,000 jobs. In the manufacturing industry in particular the following sectors are losing jobs: the manufacture of steel, machinery and vehicles (-194,000), the chemical industry and mineral oil processing (-172,000), the manufacture of wood and products made of wood, the manufacture of pulp, paper and paper products, printing and activities related to printing (-150,000), the leather, textile and clothing industries (-142,000), the electrical and electronics industry, precision engineering, the optical industry, clocks and watches (-111,000) and the food, beverage and tobacco industry (-101,000). In contrast one can assume the employment level in the core construction industry to be stable.

The employment prospects in the service sector are different: with the increasing amount of part-time work, they are assessed as positive at least with regard to the number of jobs. Here an increase in employment amounting to 1.8 million jobs is expected. The branches benefiting most from this are advisory services, planning, advertising, state-run organisations and other non-profit organisations, media and entertainment, hotel and catering trade, and health care. But also in the tertiary sector opposing developments are expected with declines in transport and telecommunications (-137,000) and in banking and insurance (-43,000). Hardly any changes will occur in commerce.

d) *Shift from full-time to part-time employment*

In the “trend extrapolation”, Prognos continues to assume that in the future working world, too, the ratio of full-time to part-time jobs will shift increasingly towards part-time jobs - and the shift will be greater than the workers currently wish (Beckmann/Kempf 1996). These changes will run different courses in the individual fields of activity in future and have consequences on the structural and activity-specific development of jobs.

- The activities which are directly and indirectly production-orientated, in other words, “**extraction/manufacture**”, “**setting up/servicing machinery**” and “**repairing**”, continue to be characterised by full-time jobs. The change in the full-time/part-time ratio as a result of the loss in the full-time segment with slight job gains in the part-time segment will also run more moderately in the future.
- The field of activity “**research and development**” is not very open to the part-time employment form, either. Although it can be expected that research and development activities, too, will be performed more in part-time form in the future, the part-time rate will remain below average.
- This is not so in the case of “**office activities**”, which were already very open to part-time employment relationships in the past. This trend will also continue in the future with the result that - starting out from a quarter at present - by the year 2010 one in three jobs will be offered in part-time form.
- A similar development is to be expected in “**commercial activities**”, in other words an increase in the number of part-time jobs with a simultaneous considerable reduction of full-time employment.

- The strong decline of “**storage and transport activities**” and “**security activities**” expected as a result of increasing rationalisation can be slowed down slightly by redistributing working time with a clear increase in the number of part-time jobs.
- The part-time rate in “**cleaning and catering activities**”, which is already well above average at present, will not decline in the future either, but will increase with a further expansion of employment.
- In the field of activity “**teaching/instructing**” the supply surplus together with a lack of public funds is increasingly being counteracted by redistributing working time towards more part-time work.
- In the case of “**consultation activities**” and in particular “**caring activities**”, which are among the major winners from the structural change, the increase in employment can also be put down solely to the further expansion in the part-time segment - though starting out from very different part-time levels.

It must be taken into consideration here, however, that it is only possible to make a rough general distinction between full-time and part-time employment at the level of fields of activity. Fields of activity are spread more or less across different economic sectors and companies with different collectively agreed working weeks. For example the collectively agreed “full-time employment” for office activities in printing works and publishers is 35 hours per week, in the public service on the other hand it is 38.5 hours (Federal Government) or 40 hours (some *Länder*). In addition to this there is the fact that in the time between the starting year of 1995 and the projection years extensive changes in the working week were expected or are still expected. In particular, however, the data basis available at the time when the projections were processed - which was the microcensus in working time classes - made the demarcation of part-time employment at less than 36 hours per week seem to be sensible as the “best” operationalisation. Thus in the following above all the part-time employment of men is overdrawn, as they are employed more frequently than women in sectors with shorter collectively agreed working time.

3 Model assumptions of the projection concerning the gender-specific employment trend

On the basis of the non-gender-specific projection made by Prognos for full-time and part-time employment, the following section goes into the expected different labour markets and employment opportunities for men and women. The data basis for the gender-specific development is the microcensus distribution (1995) of male and female workers in full-time and part-time jobs for each field of activity³.

Here, the variant preferred by Prognos is based on the fact that in addition to a further shift in the activities there will also be a forward projection of the trend in the economic structure and the full-time/part-time relation up until 2010 in a similar way to the developments in the past (1985-1995). For the gender-specific examination it is assumed in the calculations made by the IAB that the proportion of men and women per field of activity remains constant over the projection period (1995-2010). It is therefore not taken into account here that gender-specific displacement effects can occur within the individual fields of activity. For this reason this paper

³ Own calculations from the microcensus in accordance with the Prognos structure according to economic sectors, activities and qualification level.

also deals with the fact - albeit only in aggregate form - that with an increased shift from full-time to part-time employment more and more men, too, will be or will have to be employed with reduced working hours and that this will lead to shifts in part-time employment, the burden of which will fall heaviest on women (cf. on this subject: Engelbrech/Jungkunst 1999).

4 Expected overall development of full-time and part-time employment for men and women in western Germany until 2010

If the economic structure, the full-time/part-time ratio and the distribution of the sexes remain constant (variant A), then contrary employment opportunities for men and women ensue until 2010 compared with the nineties. Alone as a result of changes in activity structures within the economic sectors, and with the employment figure remaining constant overall between 1995 and 2010, on balance 235,000 women would thus lose their jobs and men would gain the same number. More full-time than part-time jobs are affected by this development (Figure 2).

If the trend projection of economic structure development and part-time development that is expected by Prognos (variant B) occurs, then only women will benefit on balance - in spite of maintaining the ratio of the sexes in each field of activity. According to this projection there is a decline in male employment from 16.243 million jobs in 1995 to 15.515 million in 2000 and to 15.026 million in 2010. In contrast, the employment opportunities for women rise from 11.053 million (1995) to 11.337 million (2000) and then to 12.088 million (2010). Thus just under a million additional jobs for women and a decline in employment of 1.2 million for men are expected between 1995 and 2010.⁴

Both among women and among men the number of part-time jobs is increasing and full-time employment is decreasing. Starting out from a level more than twice as high, men's possibilities for full-time employment are declining far more than women's, both relatively and absolutely. According to this projection, there will be 13.263 million full-time jobs for men in 2010, that is over 1.7 million fewer than there were in 1995. With 5.754 million women in full-time employment in 2010 there is here, too, a decline of just under 700,000 in this period. In future men, too, will "benefit" from part-time employment, which continues to increase on the whole by just under 2.2 million people: thus in 2010 a good half a million more men will be employed part-time than in 1995, with the figure standing at 1.763 million. Above all women benefit from the part-time trend, with an increase of 1.6 million. This is due to the traditionally high proportion of women in activities with a high level of part-time employment and the expected structural shift towards economic sectors with growing part-time employment.

It is therefore not only the female employment figures that are increasing, but also - at the current average number of hours worked by part-time employees (Beckmann/Kempf 1996) - women's volume of work (+1.6 million part-time jobs, -0.69 million full-time jobs). In contrast it is not possible to compensate for the losses of men's full-time jobs (-1.75 million) by means of additional part-time employment (+0.53 million) either via the number of jobs or via the volume of work. With the increase in the employment figures, the female share of the entire labour force increases from 42.2% in 2000 to 44.6% in 2010, but this can largely be attributed

⁴ In the trend projection preferred by Prognos it is assumed that there will be a slight decline in employment of just under 200,000 between 1995 and 2010 as a result of the negative development in the 1990s.

only to the shift from full-time to part-time work, and therefore reflects in part a redistribution of the work within the group of women.

Only under the hypothetical model assumption (variant C), which was also recorded by the IAB, that if the number of full-time jobs continues to drop, men will increasingly work or will have to work part-time at the expense of women, will the expected negative employment trend of men and the clearly positive employment trend of women be slowed down. If the part-time share of men doubled between 2000 and 2010 in each field of activity, 900,000 fewer female jobs and 900,000 more male jobs would be created compared with the trend projection (variant B). The result would be a decrease in the volume of work among women, too. Thus the number of male workers would fall by “only” 0.33 million between 1995 and 2010 and the male part-time rate would be 16.8% by 2010 (the female rate would be 48.3%).

5 Expected full-time and part-time employment for men and women according to fields of activity in western Germany until 2010

a) Overall development according to fields of activity

As was the case in the previous projections (Tessaring 1994), in the current projection, too, the employment shift away from production-orientated activities and towards service activities is expected to continue up to 2010. Thus the 1999 projection shows a drop in the proportion of the entire labour force employed in **production-orientated activities** from 30.0% in 1995 to 23.8% in 2010 (Figure 3). Owing to the continuing rationalisation pressure there are clear job losses in the field of activity “extraction/manufacture” between 1995 and 2010, amounting to 1.15 million jobs, resulting above all from economic structure effects. With increasing automatisisation this also applies at a lower level for the fields of activity “setting up/servicing machinery”, with 349,000 fewer employees, and for “repairing”, with 255,000 fewer employees, owing amongst other things to the use of materials that are less subject to wear and tear. Thus the production-orientated sector is losing even more significance than was estimated in 1994 (middle variant: 29.6%).

As far as the **primary services** are concerned there are slight gains by 2010 with a 44.5% share of the overall labour force compared with 43.7% in 1995. This depends above all on the clear increase in the proportion of employees due to greater inter-company and international links in commercial activities. Employee shares are expected to continue growing in **secondary services** in virtually all fields of activity, increasing from 26.4% in 1995 to 31.6% in 2010. Thus under the assumptions preferred by Prognos, increasing employment is to be expected in all the higher fields of activity in the service sector - predominantly in part-time jobs. In contrast, the employment figures decline in full-time jobs held predominantly by men in the production-orientated activities.

b) Gender-specific development according to fields of activity

On the whole in the **production-orientated activities** men have to bear the majority of the job losses, with a decline of 1.4 million (four times as many as women). Owing to the high level, the employment slumps occur among both men and women solely in the full-time segment (Figure 4). In the field of activity “extraction/manufacture”, which sees the greatest job losses, three quarters of those affected will be men, and in the fields of activity “setting up/servicing

machinery” and “repairing” it will be almost exclusively men who are affected. These are in particular activities with lower demands. But also in the case of more highly skilled activities, no additional employment effects occur because of the economic structure effects - in spite of the generally positive trend. Nevertheless as a consequence of the disproportionate share of women in jobs with lower qualification demands, women’s job losses in production-orientated activities are high: thus for example alone in the case of auxiliary activities in the field of “extraction/manufacture” men have to expect a good 400,000 job losses and women just under 300,000. Therefore women are affected - as they were in the past (Engelbrech 1999) - to a disproportionate degree by job cuts and have a relatively higher job risk. Nevertheless production-orientated activities remain an important field of employment for men: in 2010, too, a good one in three men will still work in this sector, but scarcely one in ten women.

Even with overall positive employment effects for women, however, the full-time employment of women in **primary service activities** also decreases between 1995 and 2010, with 361,000 fewer jobs (Figure 5). Because of the 780,000 additional part-time jobs, however, women can expect not only an increase in the number of jobs but also a greater volume of work. In the case of men, on the other hand, both the number of jobs and the volume of work decline. Half of the new part-time jobs, totalling 379,000, will be created for women in commercial activities for specialists below managerial level. Women can gain a further 200,000 part-time jobs in administrative activities in the office sector.

Furthermore a positive development will occur in skilled office activities, from which men will benefit mainly in full-time jobs (+130,000) and women will benefit in part-time jobs (+90,000) (Figure 7). In contrast to this, as a result of technical-organisational changes employment will decrease especially in the full-time jobs in simple office activities which are held mainly by women (-265,000 full-time jobs), with the result that in the office sector as a whole only a slight increase in the number employed can be assumed. This is lower among female employees, with 22,000, than among male employees with 59,000. Furthermore, in the case of “general services” within the field of activity of “cleaning/catering” just under 100,000 additional jobs are expected for women solely in part-time. The clear employment losses of full-time jobs for men within the primary services, amounting to 280,000, are mainly based on a considerable decline in storage and transport activities and on a minus of some 100,000 in security activities. Job cuts are to be expected for storage and transport activities across all sectors of the economy (Engelbrech/Jungkunst 1999).

In the case of the **secondary services**, the employee shares grow by 5.5 percentage points for men and 4.7 percentage points for women between 1995 and 2010. This means in absolute terms 528,000 additional jobs for men – 300,000 of them in full-time employment – and 843,000 additional jobs for women, but virtually all in part-time (Figure 6). Parallel to the expected positive developments in higher level services in the commercial and office sectors this trend is influenced above all by the increasing importance of higher-level activities in “organisation and management” (men: +357,000, women: +144,000). “Research/development activities” increase considerably, with 111,000 jobs, irrespective of the development of the economic structure, alone as a result of changes in the fields of activity. Employment effects are expected only in the part-time sector, however. Both of the sexes can benefit virtually equally from this. Further increasing labour requirements with continuing part-time employment in the health sector will make possible the creation of 450,000 jobs between 1995 and 2010, predominantly in the part-time sector. If non-academic advisory and caring activities

remain a female domain as they have been in the past, 435,000 additional part-time jobs for women are expected.

6 Summary and outlook

In the recent labour market crisis western Germany's women were able to raise their employment level in particular in the part-time sector, whereas men experienced considerable job losses between 1991 and 1997, losing 900,000 jobs. The decisive factor for this was firstly the considerable job cuts in male-dominated production-orientated activities. Secondly additional jobs were created for women in the service sector, albeit mainly in part-time.

This more positive development for women can only continue, however, if the trend towards expanding the service sector with increasing part-time employment lasts. For under the hypothetical assumption of unchanged economic sector structure and part-time structure, the shift of activities alone would result in approx. 230,000 fewer women and 230,000 more men working in 2010 than in 1995.

If, on the other hand, it is assumed that not only the fields of activity change but also the economic structures and that part-time work continues to grow until 2010 as it has done in the past, then there will be more employment opportunities for women than for men. As far as men are concerned more full-time jobs will be lost in auxiliary activities in the production sector and in storage and transport activities (Figure 7). These losses are much higher than the employment gains in organisation and management activities and in skilled office activities. For women the further increase in part-time work is able to slow down the reduction of jobs in simple office activities. As a result of the expansion of the advisory field and in particular the health and caring sector, the expected growth in employment is increased further due to the redistribution of working time. The latter also applies to the expansion of skilled commercial activities, from which almost exclusively women benefit even if there is no change in the gender ratio. In this way women in particular can find work in other economic sectors and new fields of activity by means of occupational reorientation. With a continuing shift from full-time to part-time work, however, the new employment opportunities for women will only increase the volume of work slightly and will for the most part only redistribute the work within the group of women.

With a continuing shortage of jobs and a clear reduction in the number of full-time jobs, an increasing demand for part-time employment on the part of men is also to be expected. In a model assuming a doubling of the male part-time share in each field of activity at the expense of women, the job reductions among men are clearly lower. In production-orientated activities the balance is shifted - compared with the assumption of an unchanged gender ratio - by 230,000 part-time jobs, in particular in auxiliary activities. The greatest employment gains in quantitative terms are achieved by men in primary services and here especially in skilled commercial and office activities. Within the secondary services the increase in the number of men working part-time in "research/development activities" and in "organisation and management" will lead to men being able to extend their dominance by a further 70,000 and 50,000 part-time jobs respectively. If the principle of the man as the main breadwinner which still prevails at present is also used as a basis for the coming years, however, the gains do not automatically bring additional employment possibilities for economically non-active men. It is more the case

that with declining full-time employment it is to be expected that as a result of lower earnings from part-time jobs some of the working men will try or will have to try to find additional employment and will therefore compete more intensively than before with economically non-active women and men.

In spite of the expected positive development of women's employment possibilities, the labour market imbalance will continue in the future, too. Men's additional employment problems, which are to be expected in the future as a result of the greater job cuts - compared with women - are lessened by the declining demographic trend. This is not the case for women: with the further increase in western German women's occupational orientation, an increase of 0.2 million in the female labour force potential is expected between 1995 and 2010, bringing it up to 14.5 million (excluding foreign net migration) (Fuchs/Thon 1999). Because the increasing occupational orientation counteracts the demographic effects, there will still be 2.2 million jobs too few for women in 2010 in spite of the more favourable employment prospects.

Firms, too, have to take up new challenges. If the economic structure and the full-time/part-time ratio continue to develop as they have in the past, the female share of the labour force will continue to grow and firms will employ more women than before. In this way firms will be confronted increasingly with problems associated with the compatibility of family and occupation. A foresighted company personnel policy will thus have to match the flow of work and the organisation of work more closely to the occupational possibilities of the female employees. This means that a working environment must be created which on the one hand permits also women with small children to minimise discontinuities in their careers, in order to keep the devaluation of human capital as low as possible. On the other hand, with women's increasing occupational orientation and better employment possibilities and with further erosion of classical full-time jobs, it will be possible and necessary for men to commit themselves more to childcare. These changes must become more of a matter of course in organising the everyday running of the firms. Only if the firms revise in good time their way of thinking in the development directions shown can they safeguard qualified staff and thus maintain their competitiveness.

Furthermore, the current debate surrounding urgently needed specialists already shows that the supply of labour will not always respond simultaneously to the structural shifts in the requirements for qualifications and activities. Here additional efforts on the part of policy-makers and the economy are needed in order to create the basic conditions needed so that the labour market developments which are "positive" for workers can be utilised and the "negative" labour market imbalances can be cushioned or avoided. The huge reduction of jobs expected in individual fields of activity and the expected increase in the number of jobs demand consequences above all for the future promotion of initial vocational training and company further training as well as the promotion of the use of labour market policy instruments.

7 References

Beckmann P., Kempf B. (1996): Arbeitszeit und Arbeitszeitwünsche von Frauen in West- und Ostdeutschland, in: Mitteilungen aus der Arbeitsmarkt- und Berufsforschung, No. 3, Nuremberg.

Dostal W., Reinberg A. (1999): Arbeitslandschaft 2010 - Eckwerte der neuen IAB-Prognos-Projektionen, Teil 2: Entwicklung nach Tätigkeitsfeldern und Qualifikationsebenen, IAB-Kurzbericht No. 10, Nuremberg.

Engelbrech G. (1999): Folgen der Beschäftigungskrise - Zur aktuellen Beschäftigungsentwicklung bei ost- und westdeutschen Männern und Frauen. IAB-Werkstattbericht No. 3, Nuremberg.

Engelbrech G., Jungkunst M. (1999): Die Zukunft der Frauenbeschäftigung - Veränderung der Arbeitslandschaft nach Tätigkeiten und Qualifikationsebenen zwischen 1995 und 2010, IAB-Werkstattbericht No. 20, Nuremberg.

Fuchs J., Thon M. (1999): Potentialprojektion bis 2040 - Nach 2010 sinkt das Angebot an Arbeitskräften, IAB-Kurzbericht No. 4; and unpublished gender-specific calculations (Thon).

Schnur P. (1999): Arbeitslandschaft 2010, - Eckwerte der neuen IAB-Prognos-Projektionen, Teil 1: Gesamtwirtschaftliche und sektorale Entwicklung, IAB-Kurzbericht No. 9, Nuremberg.

Schüssler R., Spiess K., Wendland D., Kukuk M. (1999): Quantitative Projektion des Qualifikationsbedarfs bis 2010, Beiträge aus der Arbeitsmarkt- und Berufsforschung (BeitrAB), Vol. 227, Nuremberg.

Tessaring M. (1994): Langfristige Tendenzen des Arbeitskräftebedarfs nach Tätigkeiten und Qualifikationen in den alten Bundesländern bis zum Jahr 2010. Eine erste Aktualisierung der IAB/Prognos-Projektionen 1989/91, in: Mitteilungen aus der Arbeitsmarkt- und Berufsforschung, No. 1, Nuremberg.

Weidig I., Hofer P., Wolff H. (1999): Arbeitslandschaft nach Tätigkeiten und Qualifikationsebenen, Beiträge aus der Arbeitsmarkt- und Berufsforschung (BeitrAB), Vol. 227, Nuremberg.

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