A study examined the relationship between occupational advancement among women and their participation in the training offered at the enterprise level in West Germany. Women from four firms, a department store company, a large bank, a computer firm, and a public sector service undertaking, were studied. In all four firms, the internal recruitment of managerial personnel for posts up to the highest level was linked with participation in a solidly institutionalized in-firm training system. Although successful completion of corresponding in-firm courses did not constitute a formal entitlement to internal promotion in any of the four firms, promotion appeared to be dependent on such completion. All training costs at the four firms were incurred entirely by the firms offering the training. Courses were intended to provide the knowledge and skills required to prepare and qualify the trainees to discharge the functions attached to a specific position or for promotion and assignment to managerial posts. For the most part, courses took place within the firm. The retail, banking, and computer firms all tended to recruit young, unmarried women without family responsibilities, whereas the public service undertaking recruited its management reserve without regard for women's age or family responsibilities. Most of the women questioned felt that equal training opportunities were afforded to men and women at their respective firms. (MN)
Summary of a German contribution to a comparative study carried out in the Member States of the European Community on behalf of the European Centre for the Development of Vocational Training (CEDEFOP), Berlin 1981.

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The Centre was established by Regulation (EEC) No. 337/75 of the Council of the European Communities.
The series of CEDEFOP publications on "Equality of Opportunity and Vocational Training" has been supplemented by a document presenting the findings of a study on continuing training in four large enterprises in the Federal Republic of Germany, the implications of which extend beyond national borders.

In her study, Barbara Hegelheimer seeks to shed light on the relation between occupational advancement among women and their participation in the training offered at enterprise level. Her report covers four-hundred pages and, together with this document presenting the conclusions of the study, is already available in German.

In response to the keen demand for information on the results of the study, we are publishing in the other Community languages a summary of both the findings of each individual case study and those which have emerged from the study as a whole.

The research conducted by Barbara Hegelheimer constitutes the German contribution to a study covering 26 large and medium firms in seven Member States of the Community. From this sample it will be possible to construct a framework for in-firm vocational training for women. A comparative study of the situation in the individual countries is now in progress. The next CEDEFOP publication within the Equality of Opportunity and Vocational Training series will present this orientation framework, the main axes of which are already discernible in the study on Germany, particular reference being made to the significance of activities taking place upstream of continuing training, namely, basic vocational training, which in the final analysis is the precondition and determinant for every type of occupational advancement.

CEDEFOP
Berlin, September 1982
Project Coordinator: M. Pierret
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I. Theoretical and Methodological Concept

This investigation commissioned by CEDEFOP sought to determine the impact of in-firm advanced training programmes on women's prospects of occupational advancement and promotion within a concrete work situation. It is based on case studies conducted in selected undertakings from a variety of economic sectors having a well-developed training and continuing training system. Special emphasis was given to the relationship between in-firm training programmes on the one hand and the appointment of women to a broader range of duty stations and their status in the corporate functional hierarchy on the other, in order to identify the correlation between advanced training, occupational activity and the internal promotion prospects of female personnel.

The investigation was also intended to reveal points of departure for governmental and corporate measures in education and training and labour market policy to improve women's prospects in terms of education, job opportunities and promotion prospects in the Federal Republic of Germany and the other countries of the European Community.

The study was based on the following areas of emphasis:

1. Identification of the subjective factors (e.g. orientation or attitude towards an occupation and promotion, career planning among female personnel) and the objective factors (e.g. organizational structure, training and personnel policy, recruitment strategies, in-firm and extra-firm social problems deriving from stereotyped attitudes) which determine the deployment and the promotion prospects of women in the working world.
2. Identification of the role of in-firm training in terms of its effect on the subjective and objective factors examined.

The following four hypotheses served as the basis for the investigations:

1. Limited job-finding prospects, a limited range of accessible work fields and restricted promotion prospects are attributable in particular to the relative lack of occupational qualifications found among women and that an upgrading of such qualifications would consequently broaden their range of job opportunities and improve their promotion prospects;

2. In-firm training programmes and the opportunity to be appointed to corresponding posts would overcome the job orientation deficits which a sex-specific specialization process has induced among women and would so increase their work and promotion orientation that this would ultimately exert an influence on corporate recruitment strategies in favour of better job and promotion prospects;

3. A recruitment and job assignment policy of upgrading occupational qualifications and the assignment of women to correspondingly qualified posts can offer long-term and lasting opportunities only if both job and family, with their sometimes competing if not conflicting demands on a woman's personal life concept, can be satisfactorily accommodated side by side.

The selection of the firms to be included in the investigation took place on the basis of the following criteria:
In view of the sex-specific differentiation at present in operation with respect to the distribution of female personnel over the range of occupations and economic branches and the resulting implications for their work and promotion prospects, the undertakings selected were to (i) have a different proportion of female personnel in the respective fields of work and (ii) operate in different economic sectors;

In the interest of better evaluating the impact of in-firm training programmes on women's promotion prospects and analyzing emergent trends in favour of change or development within firms and among the female personnel, the undertakings selected were to have long experience with corresponding training programmes.

In accordance with these criteria, four firms were selected from the production sector and the private and public services sector:

- one department store company
- one large bank
- one firm in the computer industry
- one public-sector services undertaking.

The selection of the women to be examined in the study was based on the following methodological approach. The various firms provided information on the number of women employed at the various levels of responsibility in the corporate functional hierarchy (lower, medium, and upper). The sampling fractions in the heterogeneous survey population were subsequently determined on the basis of stratification criteria in accordance with the accuracy.
graduation method. This methodological approach was selected in order to ensure maximum representativity.

The interrogation substance and hypotheses were operationalized by means of two independent questionnaires, one addressed to the representatives of the undertaking and the other to the women concerned, of whom the majority had undergone a course of in-firm advanced training and now hold different positions at various levels of responsibility within the corporate hierarchy.

In the first part of the survey, that addressed to the representatives of the undertaking, a standardized questionnaire was used to obtain information on the corporate organizational structure, personnel and recruitment policy, in-firm continuing training measures, the relevance of such continuing training to promotion, the job and promotion orientation of the female personnel, the assignment proportion of female personnel at the various functional levels, and their representation at the various levels of the corporate hierarchy.

In the second part of the survey, that addressed to the women themselves, a standardized questionnaire was used to gather information on participation in in-firm continuing training measures, occupational history and career to date, job promotion orientation, their opinion of the relevance of advanced training to occupational promotion, their attitude regarding the general prospects of promotion for women within the undertaking and their plans and career aspirations for the future.

Special emphasis was given in the data evaluation process to classifying the women questioned according to the level of responsibility attached to their work (low, medium, high).
Such classification was intended to provide a differentiated structure plan of job/promotion orientation, career planning, and also of opinions regarding the correlation between advanced training and promotion prospects for women working in different fields of work in different economic branches.

The empirical implementation of the survey began in December 1979. The first step was to select and establish contact with the undertakings to be surveyed. This step took place in cooperation with representatives of both management and labour. The development and finalization of the survey questionnaires followed. The field work was able to commence in May 1980 and was supplemented by a reminder/follow-up initiative in September 1980. The reply period ended in January 1981.

The reflux quota differed from undertaking to undertaking, ranging from 66% to over 80%; the average figure was 75%.

The anonymity of the women questioned was guaranteed throughout both in observance of the data protection legislation and in order to accurately identify the in-firm and extra-firm factors influencing the promotion orientation and career planning of the women concerned.

There now follows a synthesis of the most significant investigation findings obtained from the commerce and banking fields as representatives of the private services sector. Since the investigation is not due to be complete and finalized until the end of 1981, these observations are to be viewed as provisional findings only.

II. In-firm Training and Career Prospects for Women in the Retail Trade: Synthesis of the Most Significant Findings

The department store company investigated is one of the largest
in its field in the Federal Republic of Germany. It is sub-divided into one central administration and a number of department stores which are located in differently structured regions.

The recruitment of junior managerial personnel for posts right up to the top level is linked with participation in a solidly institutionalized in-firm advanced training system. Occupational promotion is normally dependent on the successful completion of corresponding in-firm training programmes. In line with the company's specific career structure, the advanced training programmes are differentiated according to field of work on the one hand and level of management responsibility on the other.

The training programmes provide the knowledge and skills required to prepare the trainees for positions in the various fields of work and at various management levels. They take place within the firm and within working hours. All costs incurred thereby are borne by the firm; the trainees receive their full salary during training.

The factors determining the recruitment of female personnel for participation in advanced training programmes include age, marital status, number of children, educational level, and years of service. The target groups in the recruitment of women are mainly composed of unmarried, childless women up to thirty years of age who have a formal educational/training qualification or a corresponding level of skill, several or long years of experience and a medium-length period of service.

In accordance with these recruitment criteria, the female personnel taking part in the continuing training measures are for the main part young, unmarried, childless women with
formal educational qualifications and a medium-term period of service with the firm. The higher the management position trained for is situated in the corporate hierarchy, the greater is the proportion of young, unmarried, childless women with advanced educational qualifications.

Accordingly, the potential reserve for the recruitment of female management personnel is composed primarily of young, unmarried, childless women holding a formal educational or training qualification. This is particularly true with respect to medium-level and senior management positions. However, women over 40 years of age with family responsibilities were found to take part in a not inconsiderable number in advanced training programmes leading to positions at lower management level.

Questioned as to equality of opportunity in the training programme recruitment process, most women were of the opinion that their opportunities of being able to take part in in-firm training measures were equal to those of the male personnel. This was equally true for management positions of the lower, medium, and senior levels. The aggregate proportion of women among the participants in in-firm training measures was found to lie above 50%.

Regarding keenness to undergo training, representatives of the company reported that no substantial sex-specific differences exist between male and female personnel in this respect. Female management staff members, most of whom had completed one or several courses of training, reported that they intended to participate in advanced training measures in the future. Approximately one in two stated that she would also be prepared to undergo training outside regular working
hours. More than three in four women holding senior management positions reported that they would be prepared to undergo training outside regular working hours.

The effect of participation in advanced training measures on promotion prospects was judged differently according to the level of the position aspired to. Representatives of the company reported that promotion prospects after training are very high with respect to lower-level management positions, high with respect to medium-level management positions and moderate with respect to senior management positions. Of the women questioned, approximately three in four holding lower-level positions, almost one in two holding medium-level positions, and only one in three holding senior positions were of the opinion that participation in in-firm training programmes had a decisive influence on promotion prospects. More than one in two of those holding lower-level managerial positions and one in four of those holding medium-level managerial positions reported that they considered their promotion to their present position to be directly attributable or at least consequential to their participation in such training measures. Regarding further promotion prospects subsequent to participation in further training courses, these were considered to be high or very high by more than one in three women holding lower-level management positions and high by one in ten of those holding medium-level or senior managerial positions.

These statements reveal that the relevance of advanced training to occupational promotion within the company is considered to be the higher, the lower the currently held position is located in the corporate hierarchy. Conversely, its relevance is considered to be the lower, the higher the
currently held position is located in the corporate hierarchy. This implies that although the internal recruitment of managerial staff up to the highest levels is indeed linked with participation in advanced training measures, such participation is not the only determining factor. Indeed, advanced training was found to be only one of a number of factors influencing promotion prospects within the company, and the weight it carries thereby is the greater, the lower the sought position is situated in the corporate hierarchy. Accordingly, the higher the sought position is located in the corporate hierarchy, the greater is the aggregate weight of other factors which, like appropriate training, are also considered to be of relevance for the discharge of managerial functions. Because of the specific structure of the company under investigation, regional and occupational mobility are of not unsubstantial importance in this connection.

With respect to the general internal promotion prospects of the female personnel, the women questioned considered that some social barriers still hinder their promotion to managerial positions. This was believed to be particularly true with respect to promotion to senior management positions. Women's promotion prospects with regard to lower-level and medium-level management positions were believed by almost all the women questioned to be on the whole favourable or at least not unfavourable, and with respect to senior management positions by almost one in three to be on the whole favourable or at least not unfavourable. This differentiated assessment of women's promotion prospects shows on the one hand that internal promotion for women to lower-level and medium-level managerial positions in commerce is regarded as being largely unproblematic, but that on the other hand it is still more difficult for women than men to earn promotion to senior management positions. This differentiation of prospects according to the level of
the position aspired to corresponds largely to the career experience of the women questioned. The investigation showed that female staff in fact hold managerial posts at the lower, medium and senior levels in the company under investigation. In accordance with the specific structure of the company concerned, they are particularly strongly represented in the following positions: at lower management level as chief saleswoman and deputy department head; at medium management level as head of training, department head (non-sales), sales director, group buyer and department head/buyer; at senior management level as organization director, personnel chief, sales promotion officer, central buyer and chief department head. No women hold positions as director or member of the management board.

The proportion of women in managerial positions was found to lie at ca. 50% at the lower management level, almost 40% at the medium management level and ca. 10% at the senior management level. Their representation among managerial personnel is thus considerable at the lower and medium levels, but is disproportionately low when measured in terms of the aggregate ratio of women to men on the payroll. Furthermore, the number of women declines in inverse proportion to the responsibility attached to the position.

The reasons given by both the representatives of the company and the women interviewed for these less favourable promotion prospects or, otherwise expressed, the underrepresentation of women at senior management level did not refer to professional competence, performance capacity or managerial aptitude. Neither the company representatives nor the women interviewed raised doubts as to the quality of these characteristics among the female personnel.
The reasons advanced by the company representatives and the women interviewed for the disproportionately small number of women in managerial positions related for the main part to the role of the woman in the family, the resulting conflict between the demands of working and domestic life, and residual, traditional prejudices regarding the assignment of women to managerial positions, in particular at senior management level.

Societal insistence on the role of the woman within the family was at the origin of the reasons advanced to explain the disproportionately small number of women in managerial positions, namely, restricted occupational and regional mobility, demanding family commitments, career interruptions, less marked desire for promotion, and the disproportionately small number of female applicants for vacant managerial positions. This latter disproportion was reported to be increasingly evident, the higher the level of the vacancy concerned.

Primarily attributable to traditional concepts of the social roles of the two sexes, these social barriers to the promotion of women to managerial positions make exacting demands on those women who are to overcome them in terms of professional and social competence and job commitment.

However, the professional and social abilities required for the discharge of managerial functions—professional knowledge and skills, occupational experience, leadership qualities, coordination and planning abilities, high work performance, ability to work under strain, job commitment, etc.—were indeed found to be forthcoming from the female personnel. The assignment of women to managerial posts, their accomplishment of the corresponding duties, and the acceptance of women in such positions are thus processes which all function for the main part smoothly and without friction.
within the company. Only a few women in senior management positions claimed that prejudices exist vis-à-vis women in management, adding that competence and personality can subsequently make a decisive contribution towards overcoming such prejudices and making the concept of women in management generally acceptable.

A positive correlation was found to exist among the women holding managerial posts questioned in the survey between level of responsibility and number of years of professional experience. The large majority had worked with little or no interruption since completion of their schooling or vocational training. Interruptions in their working lives had been for the main part of relatively short duration. Furthermore, the higher the position in question, the briefer the interruptions had been and the more frequently these were attributable not to family reasons but to job-related reasons, e.g. in order to undergo a course of advanced training. The majority of the women occupying managerial positions had completed secondary schooling and then undergone a course of vocational training. This means that women holding a certificate of secondary education who have completed a course of vocational training and participated in in-firm advanced training programmes in commerce have an opportunity of being promoted to the senior management level. At the same time, however, it was found that the higher the management level concerned, the higher the number of women holding more advanced educational qualifications. This indicates that promotion prospects are the greater, the higher the level of the educational qualification acquired.

The findings of the survey thus confirm that, assuming appropriate professional competence and the corresponding degree of job commitment, the appointment of women to
managerial positions and their fulfilment of the exacting technical and social demands thus placed on them takes place within the company without incurring any mentionable friction.

In contrast, the reconciliation of the demands of both job and family which the socially established image of the woman's family responsibilities necessitates was in some cases found to cause friction in the private/family sphere. Although most of the women in managerial positions reported not having any job-related problems in the private/family sphere despite the high demands placed on them in both their professional and domestic lives, a breakdown of the women according to the level of their appointment in the corporate hierarchy showed that the higher the level of the position held, the greater the likelihood of domestic problems arising from job demands. The problems arising from exacting professional requirements were reported to include too little time for the partner, family, domestic duties, private life, and recreation, long or irregular working hours, and overtime. Conflicts in reconciling professional and domestic duties were reported to exert an effect on the professional or domestic sphere, with the decision for their solution being taken in favour of either the job or the family depending on the degree to which the woman concerned is oriented towards occupational advancement.

In cases where the family orientation is strong, the woman's occupational commitment extends only as far as the point at which occupational and domestic demands can be combined without incurring any major friction. According to the company's representatives, some women of this category do not take advantage of promotion opportunities offered them on account of the concomitant increase in job demands, in particular when
these relate to greater regional mobility. Some of the women holding management positions who were questioned on this matter admitted that they were not prepared to accept further occupational promotion at the expense of greater job demands and more restrictions in the private sphere. Women in this category either decide to renounce the possibility of occupational advancement or they settle for a later or less significant promotion in order to accommodate family considerations.

In contrast, women whose promotion orientation is greater tend to decide in favour of their job when role conflicts occur. Accordingly, a considerable proportion of women holding senior managerial positions was found to be prepared to accept greater regional mobility and restrictions on their private/family lives in the interest of gaining further occupational promotion.

Occupational advancement and the breaking down of the social barriers which still tend to hinder the occupational advancement of women are thus not independent of the career and promotion attitude of the women themselves. Promotion orientation and career planning are influenced by a series of factors, including age, marital status, number of children, educational background and professional qualifications, income, duration of working life, duration of service with the company, personal experience in reconciling job demands with family demands, and the occupational promotion experienced previously.

It became evident that women with a high level of education and training and the corresponding opportunities for promotion were particularly inclined to develop a distinctly positive
attitude towards their job and promotion aspirations and that this positive attitude was reinforced by their participation in in-firm training measures. These women were more likely to take higher job demands and more restrictions in the private sphere into account in order to be able to accept promotion and tend to decide in favour of their job at the expense of the domestic sphere when role conflicts occur.

These findings permit the conclusion that the promotion of vocational training for women holds favourable prospects for improving their job and promotion prospects and for better integrating women on a permanent basis in corresponding positions within the framework of corporate personnel recruitment and assignment policies.

III. In-firm Training and Career Prospects for Women in Banking: Synthesis of the Most Significant Findings

The bank selected for the investigation counts among the largest enterprises in this sector in the Federal Republic of Germany. Its structure provides for the principal bank, a number of main subsidiaries, and subordinate subsidiaries including branches, which are located in differently structured areas.

The recruitment of replacement staff for posts up to the highest management levels is linked with participation in the bank's institutionalized form of in-firm training. Occupational promotion is normally dependent on participation in in-firm advanced training courses. At the same time, in-firm training courses are not designated as promotion
courses and successful completion of such in-firm training measures does not constitute a formal entitlement to occupational advancement within the bank.

The advanced training programmes are differentiated in line with the various fields of business/activity and are graded according to the various hierarchical levels. The purpose of the advanced training programmes is to promote and develop the participants with a view to their specific duties and provide the necessary knowledge and managerial skills. Such training measures are normally conducted within the bank. The participants are released from their duties for the duration of the course. The entire costs of the training programmes are borne by the bank. Staff members undergoing training receive their full salary for the duration of the course.

The recruitment of female personnel for participation in in-firm training courses is carried out primarily on the basis of objective criteria. The target groups for female recruitment are therefore those women who display both professional competence and job commitment.

The female participants in in-firm training courses are mainly young, unmarried women without family responsibilities, with a short to medium term of service with the bank, and formal educational and training qualifications or corresponding abilities. Accordingly, young, unmarried women with formal educational qualifications or corresponding training thus represent the potential reserve for the recruitment of female managerial personnel. Women account for just under one third of all participants in in-firm advanced training courses.

Regarding the readiness of the female staff to undergo training, the representatives of the bank reported that no sex-specific
differences were noticeable in this respect between male and female personnel. The majority of the women appointed to managerial positions, who had normally completed one or more advanced training courses, intended to participate in further courses in the future. The majority of them were also prepared to participate if such courses were to be conducted outside regular working hours.

The chances of promotion as a result of participation in training measures were differently assessed depending on the level of the position aspired to. According to the representatives of the bank, promotion prospects after training are high with respect to lower-level managerial posts, medium with respect to medium-level management posts, and low with respect to top management posts. More than half of the women interviewed held lower-level managerial posts, almost one half held medium-level managerial posts and only one fifth held senior management posts. More than one half of those holding lower-level posts, almost one half of those holding medium-level posts and only one fifth of those holding senior managerial posts were of the opinion that participation in in-firm advanced training courses exerted a considerable influence on their promotion prospects. More than one third of those at lower management level, one quarter of those at medium management level and none of those at senior level considered that their promotion had been directly attributable or at least consequential to their undergoing in-firm training. Prospects of further promotion on the basis of further training were considered by the majority of those at lower and medium management level and fewer than half of those in senior management positions to be high or medium.
These findings reveal that the relevance of advanced training to promotion in the bank is considered to be the greater, the lower the position concerned is situated in the corporate hierarchy. Conversely, promotion prospects are considered to be the poorer, the higher the post concerned is situated in the hierarchy. This implies that although the in-firm recruitment of replacement personnel is linked with participation in in-firm training measures, promotion to managerial posts is not determined exclusively by participation in such measures. Advanced training is but one of the factors influencing promotion prospects. Its weight is the greater, the lower the status of the post concerned. The higher the status of the post concerned, the greater is the weight of factors other than in-firm training which are likewise of relevance to the effective performance of the function in question. Partially determined by the specific structure of the bank, these other factors include occupational and regional mobility, nature and duration of occupational experience, duration of service in the bank, and degree of job commitment.

With regard to the general promotion prospects of women within the bank, the women's view was that their prospects of promotion to managerial positions were still to some extent diminished by social barriers. This was considered to be most applicable with regard to the senior management positions. Of the women questioned, more than three quarters considered promotion prospects to lower-level management positions to be favourable or at least not unfavourable; approximately two fifths considered promotion prospects to medium-level management positions to be favourable or at least not unfavourable; only very few considered promotion prospects to senior management posts to be favourable or at least not unfavourable.
This differentiation with regard to the level of the post concerned reveals firstly that the promotion of women to lower-level management posts within the bank is not generally considered to be problematic. On the other hand, it also reveals that promotion to medium and senior-level posts is still considered to be more difficult for women than for men. Furthermore, promotion prospects are also influenced by the level of the post already held: the higher the status of the post which the woman already holds, the more favourable her promotion prospects are considered to be. With regard to promotion to medium-level managerial posts, a step which was still considered by the majority of the women questioned to be more difficult for women than men, a classification of the women questioned according to the position they now hold reveals that those holding medium-level and, in particular, senior management posts considered such promotion to be largely unproblematic, while those holding lower-level management posts considered such promotion to be more difficult for women than for men. This differentiated assessment of promotion prospects according to the level of the post aspired to corresponds largely with the career experience of the women questioned.

The investigation showed that women in fact hold managerial positions at the lower, medium and senior levels in the bank. In accordance with the specific structure of the bank concerned, they are particularly strongly represented in the following positions: at lower management level as group leader, deputy branch manager, and manager of a small branch; at medium management level as branch manager, head of department, manager of a small subsidiary, group leader/principal bank, and specialists in internal affairs; and at senior management level as manager of a subsidiary bank. No women hold positions on the management board.
The proportion of women in managerial positions lies at more than ten percent at the lower management level, less than ten percent at medium management level and less than one percent at senior management level. The representatives of the bank reported that the proportion of women in managerial posts at all levels had increased over the past decade, more than doubling in the case of the medium management level. This implies that women's prospects of promotion are increasing. However, measured in terms of the aggregate proportion of female personnel in the bank which is as high as 50%, their representation at managerial level remains disproportionately low; furthermore, the number of women declines in inverse proportion to the responsibility attached to the position.

The reasons given by both the bank's representatives and the women interviewed for these less favourable promotion prospects or, otherwise expressed, the underrepresentation of women at all levels of management did not as a rule relate to professional competence, performance capacity or managerial aptitude. Neither the management nor the women questioned raised doubts as to the quality of these characteristics among the female personnel. Nonetheless, a not inconsiderable proportion of the women interviewed considered the generally lower standard of vocational training to be one of the reasons for the fact that promotion prospects are lower for women than for men.

The reasons advanced by the bank's representatives and the women questioned to explain the disproportionately low number of women in managerial positions related for the main part to the role of women in the family and the resulting conflict between the demands of work and family life, the implications
of this for their career, and residual, traditional prejudices regarding the appointment of women to managerial positions, in particular those at senior level.

Societal insistence on the role of the woman within the family was at the origin of the reasons advanced by both the bank's representatives and the women interviewed to explain the disproportionately small number of women in managerial positions, namely, restricted occupational and regional mobility, shorter duration of professional experience, less comprehensive professional experience, shorter term of service with the bank, career interruptions or abandonment in connection with family affairs, and the disproportionately small number of female applicants for vacant managerial posts.

Primarily attributable to traditional concepts of the social roles of the respective sexes, these social barriers to the promotion of women to managerial positions make exacting demands on those women—who are to overcome them in terms of professional and social competence and job commitment. However, the professional and social abilities required for the discharge of managerial functions—professional competence, occupational experience, leadership qualities, coordination and planning ability, high work performance, ability to work under strain, job commitment, etc.—were indeed found to be forthcoming from the female personnel. The assignment of women to managerial posts, their accomplishment of the corresponding tasks, and the acceptance of women in such positions are thus processes which function for the main part smoothly and without friction in the bank.

Although a not inconsiderable number of the women questioned were of the opinion that female superiors are not fully accepted or that the assignment of female staff to managerial
positions resulted in problems with their male or female subordinates, this opinion was found to be influenced by the management level the interviewee had reached. More women holding lower-level management posts were of this opinion than their colleagues in medium-level and senior management positions. Furthermore, a not inconsiderable number of the women holding medium-level and senior management posts were of the opinion that the assignment of women to management posts brought about an improvement of the working atmosphere and that abilities and personalities of the individual could make a decisive contribution to achieving a more general acceptance of women in managerial positions. It thus became evident that the higher the managerial position to which a woman is appointed, the greater is the degree to which she is accepted in that position.

A positive correlation was found among women holding managerial posts between level of managerial responsibility and number of years of professional experience/duration of service with the bank. The large majority had worked with no or only brief interruptions since completion of their schooling or vocational training. Interruptions in their working lives had for the main part been of relatively short duration. The reasons given for such temporary interruptions related to both family commitments and occupation-specific undertakings, such as participation in advanced training measures. The women holding senior management posts reported that their interruptions had been related exclusively to job-specific courses of training. Furthermore, the higher the status of the position held, the higher the standard of the educational or vocational training qualifications obtained was found to be. This implies that the higher the level of education and training (in conjunction with participation in relevant training courses, the greater are the women's prospects of promotion within the bank. This
was found to be particularly true as regards promotion to positions at senior management level. Women appointed to such positions reported that their own experience indicated that the higher the position, the greater the need for relevant qualifications, these including both formal education qualifications and participation in in-firm advanced training courses.

The findings of the survey thus confirm that, assuming appropriate professional competence and the corresponding degree of job commitment, the appointment of women to managerial positions and their subsequent fulfilment of the exacting technical and social demands thus placed upon them takes place within the bank without incurring any mentionable degree of friction.

The reconciliation of the demands of both job and family which the socially established image of the woman's domestic responsibilities necessitates was also found to operate smoothly in the majority of cases, although the exacting demands of the job were sometimes found to cause conflicts in the private/family sphere. Most of the women in managerial positions reported not having any job-related problems in their private/family lives, despite the high demands placed on them in both the domestic and occupational sphere. A breakdown of the women according to the level of their appointment confirmed that private problems did not increase with the level of the position held. Indeed, all the women holding senior management positions reported having no job-related problems in their private/domestic lives. This implies that occupational and domestic responsibilities could be satisfactorily reconciled irrespective of the level of the position held. In those cases where the women did report having job-related problems in their private/domestic lives,
these were to the effect that their exacting job demands left too little time for the partner, family, household duties, private life, and recreation and that they encountered a lack of understanding on the part of the partner for the job commitment required for the successful discharge of the managerial function concerned.

Conflicts in reconciling professional and domestic duties were reported to exert an effect on the professional or domestic sphere, with the decision for their solution being taken in favour of either the job or the family depending on the degree to which the woman concerned was oriented towards occupational advancement.

In cases where the family orientation is strong, the woman's job commitment was found to extend only as far as the point at which occupational and domestic demands can be combined without incurring any major friction. According to the representatives of the bank, some women of this category do not take advantage of promotion opportunities offered them on account of the concomitant increase in job demands. Some of the women holding managerial positions who were questioned on this matter admitted that they were not prepared to accept further promotion at the expense of higher occupational demands—e.g. regional mobility—and more restrictions in the private sphere. These women either prefer to renounce the possibility of further promotion or they settle for a later or less significant promotion in order to accommodate family considerations.

In contrast, women whose promotion orientation is stronger tend to decide in favour of their jobs when role conflicts occur. Accordingly, the majority of the women holding managerial posts was found to be prepared to accept greater regional mobility.
and restrictions in their private/family lives in the interest of gaining further promotion. The higher the status of the position already held, the greater was their readiness to accept such impositions.

Occupational advancement and the breaking down of the social barriers which still tend to hinder the promotion of women are thus not independent of the career and promotion attitude of the women concerned. Promotion orientation and career planning are influenced by a number of factors which include age, marital status, number of children, educational background and professional qualifications, income, length of working life, length of service with the bank, personal experience in reconciling professional and domestic duties, and the occupational promotion experienced previously.

It became evident that women with a high level of education and training and the corresponding opportunities for promotion were particularly inclined to develop a distinctly positive attitude towards occupation and promotion and that this positive attitude was reinforced by their participation in in-firm training measures. Women of this category are more likely to take more exacting job demands and more restrictions in the private sphere into account in order to accept promotion, and tend to decide in favour of their jobs at the expense of the domestic sphere when role conflicts occur.

These findings permit the conclusion that the promotion of vocational training for women holds favourable prospects for improving women's job and promotion prospects and for better integrating women on a permanent basis into the corresponding positions within the framework of corporate personnel recruitment and personnel assignment policies.
IV. **In-firm Training and Career Prospects for Women in the Computer Industry**

**Synthesis of the Most Significant Findings**

The computer firm investigated is one of the leading firms in the computer sector in the Federal Republic of Germany. It is subdivided into one head office and a number of production units and marketing outlets which are located in differently structured regions. The firm develops, manufactures and markets goods and services for the data processing and informatics sector.

The recruitment of replacement managerial personnel for management posts up to the highest level is linked with participation in a solidly institutionalized in-firm advanced training system. Promotion is normally dependent on the completion of corresponding in-firm advanced training courses, although successful completion of such courses does not represent an automatic entitlement to internal promotion. In view of the strong influence of technological innovation on job requirements in this field, participation in in-firm advanced training courses is an essential, but not the only precondition for promotion to managerial posts.

The advanced training programmes are differentiated in line with the firm's specific areas of activity and business. They are designed on a modular basis and are furthermore graded in line with the various corporate functional levels. The
training courses provide the knowledge and skills required to prepare the trainees for posts in the various fields of work. They normally take place within the firm. Participants in the training courses are released from their duties for the duration of the course. All costs incurred by the provision of training are borne by the firm; the trainees receive their full salary during training.

Since the function currently held is the only relevant criterion for recruiting female personnel for participation in training courses, the target groups for such recruitment are classified according to their corporate function.

The female participants in in-firm advanced training measures are primarily young women without family responsibilities and with advanced education or training qualifications or a corresponding level of skill. Accordingly, the potential reserve for the recruitment of female management personnel is composed primarily of young women without family responsibilities and with advanced education or training qualifications or a corresponding level of skill.

The representation of women among the participants in in-firm advanced training measures corresponds to their representation in the various fields of work; women account for between 5% and 20% of all participants, depending on the field of work for which the training is provided.
With regard to equality of opportunity in the recruitment of staff for training, the majority of the women questioned were of the opinion that their opportunities of participating in such training measures were equal to those of men. This was considered to be equally true with regard to all managerial levels.

Regarding keenness to undergo training, representatives of the firm reported that no sex-specific differences existed between male and female personnel in this respect. Female management staff members, most of whom had completed one or several courses of training, reported that they intended to participate in advanced training measures in the future. The majority stated that they would also be prepared to undergo training outside regular working hours.

The effect of participation in advanced training measures on promotion prospects was judged differently according to the level of the position concerned. Representatives of the firm reported that the influence of such participation on promotion prospects was difficult to quantify. The weight of the training factor with respect to internal promotion was indeed found to be different depending on the level of the position aspired to: it was found to be the greater, the lower the position is located in the corporate hierarchy and, conversely, the lesser, the higher the position is located in the corporate hierarchy.
In contrast, the women questioned considered that the relevance of training to promotion was the higher, the higher the position they currently held was located in the corporate hierarchy. Conversely, they considered it to be the lower, the lower the position they currently held was located in the corporate hierarchy. Of the women questioned, more than one half of those holding lower-level managerial positions and almost nine tenths of those holding medium-level managerial positions were of the opinion that participation in in-firm advanced training courses exerted a considerable influence on their internal promotion prospects. Approximately one fifth of those holding lower-level managerial posts and more than two fifths of those holding medium-level management posts reported that they considered their promotion to their present positions to be directly attributable or at least consequential to their participation in such training measures. Regarding further promotion prospects subsequent to participation in further training courses, these were considered to be good or moderate by one half of those holding lower-level managerial posts and by all of those holding medium-level managerial posts.

Advanced training was thus indeed found to be a relevant factor of influence with regard to internal promotion. However, although the internal recruitment of managerial staff up to the highest management levels is linked with participation in advanced training courses, such participation is not the only or not the primary determining factor. Promotion to managerial posts is also dependent on other factors which, like training, are also of relevance to the effective discharge of management functions. These other factors include professional competence, performance capacity, aptitude for managerial work, range and duration of occupational experience, length of service with the firm, job commitment, and mobility.
With respect to the general internal promotion prospects of the female personnel, it was considered that some sizeable social barriers still hinder the promotion of women to managerial positions. This was found to be all the more true, the more atypical of women the field of work and the higher the level of the position. Women's promotion prospects with respect to lower-level management positions were believed by three quarters of the women questioned to be on the whole favourable or at least not unfavourable, with respect to medium-level management positions by more than two fifths to be favourable or at least not unfavourable, and with respect to senior management positions by only very few to be favourable or at least not unfavourable.

This differentiated assessment of women's internal promotion prospects shows on the one hand that internal promotion for women to lower-level management positions in the computer industry is regarded as being largely unproblematic, but that on the other hand it is still more difficult for women than men to earn promotion to medium-level and, in particular, senior level management posts. However, the assessment of promotion prospects was found to be influenced by the level of the post already held: the higher the status of the post which the woman currently holds, the more favourable her promotion prospects are considered to be. With regard to promotion to medium-level managerial posts, a step which was still regarded by the majority of the women questioned to be more difficult for women than for men.
a classification of the women questioned according to the position they now hold reveals that those holding medium-level management posts considered such promotion to be largely unproblematic, while those holding lower-level management posts considered such promotion to be more difficult for women than for men. This differentiated assessment of promotion prospects according to the level of the post concerned corresponds largely with the career experience of the women questioned.

The investigation showed that women in fact hold managerial positions at lower and medium management level. In accordance with the specific structure of the firm concerned, they are represented in the head office and the marketing and production units. They are primarily assigned to the following work areas: software, development, general administration (finance and administration, marketing, personnel management, training and advanced training) and in the production field. They are particularly strongly represented in the following positions: in lower-level management as forewoman/master craftswoman, group leader, project leader; in medium-level management as section head, department head/administration fields, software head/marketing units. The position of software head is considered to be located at the interface between the medium and senior management levels. No women have yet been appointed to positions at senior management level.
The proportion of women in managerial positions was reported by the representatives of the firm to lie between 10% and 15% at the lower management level, and at a maximum of 5% at medium management level. However, measured in terms of the aggregate proportion of female personnel on the payroll, women are underrepresented in the firm's management; furthermore, the proportion of women declines in inverse proportion to the responsibility attached to the position.

Most of the reasons given by both the representatives of the firm and the women interviewed for these less favourable promotion prospects or, otherwise expressed, the underrepresentation of women at the various managerial levels did not refer to professional competence, performance capacity or managerial aptitude. Neither the firm's representatives nor the women interviewed raised doubts as to the quality of these characteristics among the female personnel. However, both the representatives of the firm and a large proportion of the women questioned cited the generally lower level of occupational qualification among women as being one of the reasons for their hitherto poor promotion prospects.

The other reasons advanced by the firm's representatives and the women questioned for the disproportionately small number of women in managerial positions related for the main part to the role of the woman in the family, role conflicts in the reconciliation of occupational and domestic responsibilities and their influence on the career path, and residual, traditional prejudices regarding the assignment of women to managerial positions, in particular to senior positions and those which are not considered to be typical positions for women.
Societal insistence on the role of the woman within the family was at the origin of the reasons advanced by the representatives of the firm and the women questioned to explain the disproportionately small number of women in managerial positions, namely, restricted occupational and regional mobility, short duration of working life, relatively brief work experience, shorter period of service with the firm, demanding family commitments, career interruptions or abandonment, a less marked desire for promotion, and the disproportionately small number of female applicants for vacant managerial posts.

Primarily attributable to traditional concepts of the social roles of the two sexes, these social barriers to the promotion of women to managerial positions make exacting demands in terms of professional and social competence, career orientation, and job commitment on those women who are to overcome them. However, the professional and social abilities required for the discharge of managerial functions—professional knowledge and skill, occupational experience, leadership qualities, coordination and planning abilities, high work performance, ability to work under strain, etc.—were indeed found to be forthcoming from the female personnel who have been promoted to managerial positions. The assignment of women to managerial posts and their accomplishment of the corresponding duties are processes which function for the main part smoothly and without friction in the firm.
On the other hand, female managerial personnel are not always accepted without friction. The representatives of the firm reported that prejudice exists against female managerial personnel in those fields of work which are not considered to be typical fields of work for women. A not inconsiderable proportion of the women questioned were of the opinion that female superiors are not fully accepted and that the assignment of women to managerial positions provoked problems with the regular male and female staff. This opinion, however, was found to bear a relation to the position held: women holding lower-level management posts were more convinced of its validity than those holding medium-level posts. Moreover, a not inconsiderable proportion of women holding medium-level management posts considered that professional competence and personality could decisively contribute towards greater acceptance of women in managerial posts and that the assignment of women to such positions brought about an improvement of the working atmosphere. These opinions revealed that the degree of acceptance of female managerial personnel increases, the higher the level of the position to which the woman is appointed.

A positive correlation was found among women holding managerial posts from the lower to the medium management level between level of managerial responsibility and number of years of professional experience/duration of service with the firm. The large majority holding posts at this level had worked continuously, without interruption, since completing their education or training. All of the women holding medium-level management posts were found to have worked without any interruptions since completing their education or training. The women appointed to management positions
who reported having interrupted their career also explained that such interruptions had been for the main part relatively brief and had been motivated by primarily domestic and career-related circumstances, such as participation in continuing training measures.

An analysis of the women appointed to managerial positions also revealed a positive correlation between the level of the position held and the level of their educational or vocational training qualifications. This implies that the higher the level of education and training (in conjunction with participation in the relevant in-firm training courses), the greater are the women's prospects of internal promotion. Furthermore, the women appointed to management positions reported that their own professional experience indicated that such a positive correlation between qualification and position was indeed necessary.

The findings of the investigation thus confirm that, assuming appropriate professional competence and the corresponding degree of job commitment, the appointment of women to managerial positions and their subsequent fulfilment of the exacting technical and social demands thus placed upon them takes place within the firm without incurring any mentionable degree of friction. The reconciliation of the demands of both job and family which the socially established image of the woman's domestic responsibilities necessitates was also found to operate smoothly in the majority of cases, although the exacting demands of the job were sometimes found to cause conflicts in the private sphere.
Most of the women in managerial positions reported having no job-related problems in their private/family lives, despite the high demands placed on them in both the domestic and professional sphere. However, a breakdown of the women according to the level of their appointment revealed that private problems in fact increased with the level of the position held. The women who reported having job-related problems in their domestic/private lives referred to the fact that their exacting job demands left too little time for the partner, family, household duties, private life, and recreation. In contrast, it was only in relatively isolated cases that a lack of understanding on the part of the partner for the necessary job commitment was reported as constituting a job-related problem.

Where conflicts in reconciling professional and domestic duties were reported to raise problems in the professional or the domestic sphere, the decision for their solution or evasion was taken in favour of either the job or the family depending on the degree to which the woman concerned was oriented towards occupational advancement.

In cases where the family orientation is strong, the woman's job commitment was found to extend only as far as the point at which occupational and domestic demands can be reconciled without incurring any large degree of friction. According to the representatives of the firm, some women of this category do not take advantage of promotion opportunities offered them on account of the associated increase in job demands. Some of
the women holding managerial positions who were questioned on this matter admitted that they were not prepared to accept further promotion at the expense of more exacting job demands—e.g., regional mobility—and more restrictions in the private/family sphere.

In contrast, women whose occupational promotion orientation is stronger tend to decide in favour of their jobs when role conflicts occur or are foreseeable. Accordingly, a substantial proportion of the women holding managerial positions were found to be prepared to accept greater regional mobility and further restrictions on their private/family lives in the interest of gaining further promotion.

Occupational advancement and the breaking down of the social barriers which still tend to hinder the promotion of women are thus not independent of the career and promotion orientation of the women concerned. Promotion orientation and career planning are themselves influenced by a number of factors which include age, marital status, number of children, level of education or training, income, duration of work experience, duration of service with the firm, personal experience in reconciling professional and domestic duties, and the occupational promotion experienced previously.

The investigation showed that women with a high level of education or training and the corresponding promotion possibilities tend to develop a distinctly positive attitude towards promotion. These women are more willing to accept
the increased job demands associated with promotion and, in the event of conflicts in reconciling professional and domestic duties, tend to decide in favour of their career.

These findings permit the conclusion that the promotion of vocational training for women holds favourable prospects for improving women's job and promotion prospects and for better integrating women on a permanent basis into the corresponding positions within the framework of corporate personnel recruitment and personnel assignment policies.
V. In-firm Training and Career Prospects for Women in the Public Services Sector

Synthesis of the Most Significant Findings

The public service enterprise investigated is not a commercial enterprise but an autonomous public-sector enterprise or public enterprise. It has a natural monopoly, is subordinate to the competent federal ministry and is a public-law institution operating on the basis of a special fund which is alimented from federal funds. The enterprise is subdivided into a network of centres which covers the entire territory of the Federal Republic of Germany.

The functional hierarchy of the enterprise is composed of the clerical grade, the lower executive grade, the higher executive grade and the administrative grade. Appointment to and promotion within the careers of the various career groups are governed by the civil service code and relevant career and remuneration regulations. The employees of the enterprise are assigned to workplaces of the clerical, lower executive, higher executive or administrative class on the basis of these statutory regulations.

The recruitment of replacement managerial personnel or internal promotion is linked with participation in a solidly institutionalized in-service advanced training scheme. The employees are obligated to undergo advanced training by the statutory career regulations in order to qualify for discharging the duties associated with the post in question; they are to be given the opportunity to participate in such promotion-oriented training courses and, once they have increased their knowledge and skills by participation in such training measures, are to be promoted in accordance with the
statutory regulations regarding the discharge of higher qualified activities. Participation in advanced training courses is of particular relevance with regard to entry to the next highest career. Admission for promotion is linked with a selection procedure which operates on a competitive basis and for which corresponding preparatory training courses are organized. Furthermore, proof of participation in advanced training courses is of significance in the event of a candidature for admission for promotion. In the event of the candidate's admission for promotion to the next highest career, his/her introduction into this career is accompanied by appropriate training courses. The successful completion of advanced training courses does not constitute a formal entitlement to promotion within the service. Participation in such courses is rather a factor which improves promotion prospects but does not suffice alone to bring about promotion within the service.

The advanced training courses are differentiated according to the various fields of activity and are graded in line with the various functional levels. Their purpose is to promote and develop the participants with a view to their specific duties or to prepare them for promotion and assignment to the next highest career. The advanced training courses are for the main part carried out within the enterprise. The participants are released from their duties for the duration of the course. All costs incurred by the training are borne
by the enterprise. Employees undergoing training receive their full salary for the duration of the course. The conditions of participation are the same for male and female employees.

In the recruitment of female personnel for participation in in-service training courses, a process which is governed by the career regulations, importance is attached to the currently held post. In the case of training for promotion to the next highest career, importance is attached in the career regulations and admission conditions to the following factors: age, level of education/training, range and duration of occupational experience, and length of service. In contrast, marital status and number of children are of no relevance in the recruitment of female personnel for training purposes. The target groups for the recruitment of female staff for promotion-oriented training courses are thus determined by the post concerned, the career regulations and the conditions governing admission to a competitive selection procedure.

The female participants in promotion-oriented advanced training courses include both young, unmarried women and a considerable number of married women over 35 years of age with family responsibilities, medium to long-term length of service, and advanced educational or training qualifications or corresponding abilities. Accordingly, it is primarily women with advanced educational/training qualifications or corresponding abilities—of whom many are young and unmarried but a considerable proportion is married with family responsibilities—who seek to earn in-service promotion by means of participation in in-service advanced training measures.
The proportion of women among the participants in the various advanced training courses amounted to between 25% and 30% on aggregate. Their proportion among the participants in training measures specifically designed to prepare candidates for the next highest career amounted to between 20% and 25%.

Questioned as to equality of opportunity in the training programme recruitment process, most women were of the opinion that their opportunities of being able to participate in in-service training measures were equal to those of men. This was considered to be the case for all types of in-service training.

Regarding keenness to undergo training, representatives of the enterprise reported that sex-specific differences did exist between male and female personnel in connection with specific measures to train staff for assignment to the next highest career: fewer women than men applied to participate in such promotion-oriented measures. The majority of the women holding senior positions, most of whom had already completed advanced training courses or specifically promotion-oriented courses, reported that they intended to participate in advanced training measures in the future. The majority were also prepared to undergo such training outside regular working hours.
The effect of participation in advanced training measures on promotion prospects was assessed differently according to the level of the position in question. The representatives of the enterprise stated that the influence of the training factor on promotion prospects was difficult to quantify. The weight of the training factor in promotion to management posts was also found to depend on the level of the position aspired to: the lower the position is situated in the functional hierarchy, the greater is the importance of the training factor and, conversely, the higher the position is situated in the functional hierarchy, the lesser is the importance of the training factor.

Of the women questioned, approximately one third in each of the lower, medium and senior management grades were of the opinion that participation in advanced training courses had a decisive influence on promotion prospects. Approximately one third of those holding lower-level management positions, approximately one tenth of those holding medium-level management positions, and none of those holding senior management positions reported that they considered their promotion to their present position to be directly attributable or at least consequential to their participation in such training measures. Regarding further promotion prospects subsequent to participation in further training courses, these were considered to be good or moderate by more than one third of those holding lower-level managerial positions and one half of those holding medium-level managerial positions, and to be only moderate by two thirds of those holding senior management positions.

It was thus confirmed that advanced training indeed constitutes a factor of influence with regard to in-service promotion. At the same time, promotion to managerial posts is not exclusively or primarily determined by the successful completion
of advanced training courses. Of greater relevance to promotion to managerial positions are other factors which, like training, are also essential for the efficient discharge of managerial functions. The most important of these, alongside professional competence, are high performance capacity and an aptitude for management duties. Training was thus confirmed to be a factor which, although raising promotion prospects, does not alone suffice to ensure promotion.

With respect to the general in-service promotion prospects of the female personnel, it was found that despite the formal existence of equality of opportunity within the public services sector, the women considered that some social barriers still hinder their promotion to managerial positions. The effect of such barriers was believed to be the greater, the higher the managerial position concerned was located in the functional hierarchy. Women's promotion prospects with regard to lower-level management positions were believed by more than four fifths of the women questioned to be favourable or at least not unfavourable, with regard to medium-level managerial positions by approximately two thirds to be favourable or at least not unfavourable, and with regard to senior managerial positions by only approximately one quarter to be favourable or at least not unfavourable.

This differentiated assessment of women's promotion prospects shows on the one hand that in-service promotion for women to lower-level and medium-level management positions in the public services sector is regarded as being largely un-problematic, but that on the other hand it is still more
difficult for women than men to earn promotion to senior management positions. Furthermore, the assessment of promotion prospects is also influenced by the level of the position currently held: the higher the status of the post the woman already holds, the more favourable she normally considers her promotion prospects to be. This differentiated assessment of promotion prospects according to the level of the post held corresponds largely with the career experience of the women questioned.

The investigation showed that women in the public service sector enterprise concerned in fact hold managerial positions in the upper executive and administrative classes. For purposes of comparison with the other undertakings examined in this survey, they can be considered to hold positions at the equivalent of the lower, medium and senior management levels. In accordance with the specific structure of the enterprise concerned, they were found to be assigned to various areas of activity within the administrative and technical operations fields. They are particularly strongly represented in the following positions: at lower management level as clerical officer, head of section, and operations manager of small authorities; at medium management level as operations manager of larger authorities, department heads in larger authorities, and principal officer; and at senior management level as department director in medium authorities and principal officer in special departments.

The proportion of women in managerial positions of the higher executive and administrative classes was found to be less than 10% in each case in the enterprise investigated, which was located in an industrial agglomeration area. The representatives
of the enterprise reported that the proportion of women in managerial posts had increased over the past decade, almost tripling in the case of the administrative grade. This implies that women's prospects of promotion have increased in the public services sector. However, measured in terms of the aggregate proportion of female personnel on the payroll of the enterprise, which lies at approximately 35%, their representation at managerial level remains disproportionately low; furthermore, the number of women declines in inverse proportion to the responsibility attached to the position.

The reasons given by both the representatives of the enterprise and the women questioned to explain the still disproportionately low representation of women in managerial positions did not as a rule relate to professional competence, performance capacity or managerial aptitude. Neither the representatives of the enterprise nor the women interviewed raised doubts as to the quality of these characteristics among the female personnel with regard to their assignment to managerial posts in any of the career grades. Nevertheless, the representatives of the enterprise did make reference in this connection to a relative lack of enthusiasm among women to take part in advanced training measures, while a not inconsiderable number of the women questioned cited the generally lower level of occupational qualification among women and, in confirmation of the above, their relative lack of enthusiasm to take part in advanced training measures as reasons for their less favourable promotion prospects.

The reasons advanced by the representatives of the enterprise and the women questioned to explain the disproportionately low number of women in managerial positions in fact related for the main part to the role of the woman in the family and the corresponding role conflicts encountered in reconciling the
demands of work and family life and the implications of these for their career. Some of the women also made reference in this connection to residual, traditional prejudices regarding the appointment of women to managerial positions.

Societal insistence on the role of the woman within the family was at the origin of the reasons advanced by the women questioned to explain the disproportionately small number of women in managerial positions, namely, limited occupational and regional mobility, more imposing family obligations, less readiness to work overtime, career interruptions or career abandonment for family reasons, and a less marked promotion orientation. The representatives of the enterprise also added to these reasons the disproportionately small number of female applicants for vacant managerial posts.

Primarily attributable to traditional concepts of the societal roles of the respective sexes, these social barriers to the promotion of women to managerial posts makes exacting demands in terms of professional and social competence, attitude to promotion, and job commitment on those women who are to overcome them. However, the professional and social abilities required for the discharge of managerial functions—professional competence, occupational experience, leadership qualities, coordination and planning ability, high work performance, ability to work under strain and job commitment—were indeed found to be forthcoming from the female personnel assigned to managerial posts. The assignment of women to such posts and their accomplishment of the corresponding tasks are thus processes which were considered to function for the main part smoothly and without friction in the enterprise.

On the other hand, friction sometimes occurs with respect to the acceptance of women in managerial positions. The
representatives of the enterprise reported that some self-assertion problems do exist among female managerial staff, particularly those managing areas of work which are male-dominated, one example being the technical operations departments. A not inconsiderable proportion of the women questioned reported that female superiors are not fully accepted or that the appointment of female managers provokes problems with the regular male and female staff. However, this opinion was found to be influenced by the level of the position held: women holding lower-level management posts were more convinced of its validity than those holding medium-level or senior management posts, thus revealing that the degree of acceptance of female managerial personnel increases, the higher the level of the position to which the woman is appointed.

The majority of the women appointed to managerial positions in this public service sector enterprise had already completed a long period of service. The majority had served continuously, without interruptions, since completing their education or training. All the women holding medium-level and senior management posts had served without any interruptions since completing their education or training. Those women appointed to managerial posts who had not worked continuously reported that their interruptions had been relatively brief. The reasons given to explain such temporary interruptions related primarily to family responsibilities or job-related activities such as continuing training.

An analysis of the women appointed to managerial positions also revealed a positive correlation between the level of the position held and the level of the incumbent's educational or vocational qualifications. This implies that the higher the
level of education and training (in conjunction with participation in relevant in-service training courses), the greater are the prospects of in-service promotion. Furthermore, the women appointed to managerial positions reported that their own professional experience had indicated that such a positive correlation between qualification and position was indeed necessary. This opinion reflects the spirit of the qualification requirements for admission to the higher executive and administrative grades as prescribed in the statutory career regulations.

The findings of the investigation thus confirm that, assuming appropriate professional competence and the corresponding degree of job commitment, the appointment of women to managerial posts and their subsequent fulfilment of the exacting technical and social demands thus placed upon them takes place in the enterprise without incurring any mentionable measure of friction. The reconciliation of the demands of both job and family which the socially established image of the woman's domestic responsibilities necessitates was considered by the women questioned to likewise operate smoothly in the majority of cases, although the exacting demands of the job were sometimes reported to cause conflicts in the private sphere.

The women holding managerial positions who were interviewed reported having no grave job-related problems in their private/family lives, despite the high demands placed on them in both the domestic and the professional sphere. Furthermore, a breakdown of the women questioned according to the level of their
appointment confirmed that private problems did not increase with the level of the position held. Indeed, all the women holding medium and senior management posts reported having no job-related problems in their private/domestic lives. This implies that occupational and domestic demands could be satisfactorily reconciled irrespective of the level of the position held. In those cases where the women did report having job-related problems in their private/domestic lives, these were to the effect that their exacting job demands left too little time for the partner, family, household duties, private life and recreation, and also made reference to long or irregular working hours and overtime. In contrast, a lack of understanding on the part of the partner for the necessary job commitment was not reported as constituting a job-related problem.

Where conflicts in reconciling professional and domestic duties were reported to raise problems in the professional or the domestic sphere, the decision for their solution or evasion was taken in favour of either the job or the family depending on the degree to which the woman concerned was oriented towards occupational advancement.

In cases where the family orientation is strong, the woman's job commitment was found to extend only as far as the point at which occupational and domestic demands can be reconciled without incurring any large measure of friction. Some women of this category do not take advantage of promotion opportunities offered them on account of the associated increase in job demands. Some of the women holding managerial positions
who were questioned on this matter admitted that they were not prepared to accept further promotion at the expense of more exacting job demands—e.g. regional mobility—and more restrictions in the private sphere.

In contrast, women whose occupational promotion orientation is stronger tend to decide in favour of their career when role conflicts occur or are foreseeable. Accordingly, more than one half of the women in managerial positions reported that they would be prepared to accept greater regional mobility and restrictions on their private/family lives in the interest of gaining further promotion. However, willingness to accept greater regional mobility under such conditions was found to be forthcoming only among those who held senior managerial posts.

Occupational advancement and the breaking down of the social barriers which still tend to hinder the promotion of women are thus not independent of the career and promotion orientation of the women concerned. Promotion orientation and career planning are themselves influenced by a number of factors which include age, marital status, number of children, level of educational or vocational qualification, income level, length of working life/service, personal experience in reconciling professional and domestic duties, and the occupational promotion experienced previously.

The investigation showed that women with a high level of education or training and the corresponding promotion possibilities tend to develop a distinctly positive attitude towards promotion, and that this positive attitude is reinforced by their participation in advanced training measures. These
women are more inclined to accept the increased job demands associated with promotion and, in the event of conflicts in reconciling professional and domestic duties, tend to decide in favour of their career.

Since it was primarily women with a distinct professional competence and a positive attitude towards their career who constitute the potential reserve for the recruitment of female managerial personnel, the findings of the investigation permit the conclusion that the promotion of vocational training for women can make a valuable contribution towards improving women's promotion prospects and better integrating women into positions of corresponding responsibility.
VI. Résumé

The present investigation was conducted on the basis of case studies undertaken in selected undertakings from different economic sectors having a developed training and advanced training system, and sought to determine the practical impact of in-firm training measures on women's promotion prospects. Its most important aspect was an analysis of the correlation between the assignment of female personnel to a range of corporate activities and their position in the corporate functional hierarchy on the one hand and advanced training courses on the other, which analysis served to identify the interlinkages existing between advanced training, occupational activity and the promotion of women within the undertaking.

The selection of the undertakings to be investigated took into account the sex-specific differentiation in the distribution of women in terms of occupation and economic sector and the resulting implications for their promotion prospects. Accordingly, the following four undertakings in the production sector, the private services sector and the public services sector were selected for investigation: one department store company, one large bank, a firm in the computer industry, and a public service enterprise.

In the undertakings investigated, the internal recruitment of managerial personnel for posts up to the highest level is linked with participation in a solidly institutionalized in-firm training system. Promotion is normally dependent on the completion of corresponding in-firm advanced training courses, although successful completion of such courses does not constitute a formal entitlement to internal promotion. Participation in advanced training courses is thus a necessary
precondition for promotion to managerial positions, but does not suffice per se to ensure such promotion.

The training courses conducted in the undertakings investigated are differentiated according to field of business/work/activity and are graded in line with the respective levels of the corporate functional hierarchy. They are intended to provide the knowledge and skills required to prepare and qualify the trainees to discharge the functions attached to a specific position or for promotion and assignment to managerial posts. The training courses take place for the main part within the undertaking. The participants are released from their normal duties for the duration of the course. All costs incurred thereby are borne by the undertaking; the participants receive their full normal salary during training.

The criteria governing the recruitment of female personnel for participation in advanced training programmes were found to vary to some extent from undertaking to undertaking:

- In the retail sector, special importance is attached in recruitment for training to the following factors: age, marital status, number of children, level of educational/training qualification and length of service. The target groups for the recruitment of female trainees are thus composed primarily of young, unmarried women without family
responsibilities, with advanced educational or vocational qualifications or an equivalent level of skill, medium to long-term occupational experience, and with a medium length of service with the firm. In accordance with these selection criteria, the female personnel taking part in advanced training measures are for the main part young women without family responsibilities and with an advanced educational or vocational qualification and a medium-term period of service with the firm. Furthermore, the higher the position trained for is situated in the corporate hierarchy, the greater is the proportion of young, unmarried, childless women with advanced educational qualifications. However, women over 40 years of age with family responsibilities were also found to participate in not inconsiderable number in advanced training programmes qualifying for positions at lower management level.

In the banking sector, objective criteria are of primary relevance for the recruitment of female personnel for training. Accordingly, the target group for such recruitment is comprised of women displaying both professional competence and job commitment. The female participants in advanced training measures are mainly young, unmarried women without family responsibilities, with a short to medium term of service with the bank and advanced educational or vocational qualifications or a corresponding level of skill.
In the computer industry firm, the function currently discharged is the only criterion of relevance to the recruitment of female personnel for training. The target groups for such training are therefore classified in terms of corporate function. The female participants in in-firm training courses are primarily young women without family responsibilities and with advanced or very advanced educational or vocational qualifications or a corresponding level of skill.

In the public service sector enterprise investigated, the recruitment of female personnel for participation in in-service training is governed by career regulations in which special importance is attached to the currently held post. In the case of training to prepare for promotion to the next highest career, importance is attached in the career regulations and the admission conditions to the following factors: age, level of education/training, occupational experience and length of service. In contrast, marital status and number of children are of no relevance in the recruitment of female personnel for training. The target groups for the recruitment of female personnel for training purposes are thus determined by the post concerned, the career regulations and the conditions governing admission for promotion. The female participants in advanced training courses include both young, unmarried women without family responsibilities and a considerable number of married women with family responsibilities, a medium to long-term period of service and advanced or very advanced educational or vocational qualifications or a corresponding level of skill.
Thus in the retail and banking sectors and in the computer industry it is primarily young, unmarried women without family responsibilities who form the reserve potential for the recruitment of female managerial staff. This is in contrast to the situation in the public services sector, where both young, unmarried women without family responsibilities and also married women with family responsibilities constitute the management reserve potential. Common to the reserve potential in all types of undertaking is the possession of advanced or very advanced educational or vocational qualifications or a correspondingly high level of skill.

With respect to equality of opportunity in the recruitment for training process, most of the women questioned were of the opinion that their opportunities of being able to participate in in-firm training measures were equal to those of men. This was considered to be the case for all types of in-firm training carried out in the various undertakings.

The effect of participation in advanced training measures on promotion prospects was assessed differently from undertaking to undertaking and also according to the level of the position in question. In general, the relevance of the training factor to promotion was considered to be the greater, the lower the position concerned is located in the corporate functional hierarchy and, conversely, its relevance was considered to be the lesser, the higher the position concerned is located in the corporate functional hierarchy. This implies that although advanced training indeed constitutes a factor of influence with regard to the internal recruitment of managerial personnel, promotion to managerial posts is not exclusively or even primarily determined by the successful completion of corresponding training courses. Advanced training is thus but one of a number of factors which are of relevance to internal promotion,
its weight in this connection being the greater, the lower
the position sought is located in the corporate hierarchy.
Consequently, the higher the sought position is located in
the corporate hierarchy, the greater is the aggregate weight
of other factors which, like advanced training, are also
essential for the efficient discharge of managerial functions.
The most important of these, alongside professional competence,
are high performance capacity, an aptitude for managerial
duties, range and duration of occupational experience, length
of service, job commitment and, not least, occupational and
regional mobility.

With respect to the general internal promotion prospects of the
female staff employed in the undertakings investigated, it
became evident that, from the point of view of the women
questioned, considerable social barriers are still considered
to hinder the appointment of women to managerial posts.
These barriers were considered to be the greater, the higher
the status of the position concerned and the more atypical
of women the associated field of work is. In the commerce
and public services sector, while the promotion of women
to lower management level is considered to be generally
unproblematic, promotion to medium-level and senior management
posts is still regarded to be more difficult for women than
for men. This was found to be particularly true in the banking
sector and the computer industry, where women's prospects of
promotion to senior management positions were only seldom
considered to be favourable or at least not unfavourable.
In the retail sector and the public services sector, the majority of the women questioned considered that it is still more difficult for women than for men to earn promotion to senior managerial positions, although a not inconsiderable number of the women questioned considered that women's promotion prospects with respect to such positions were favourable or at least not unfavourable.

However, the assessment of promotion prospects was found to be influenced by the level of the position already held. The higher the level of the position already held, the more favourable the promotion prospects are considered to be. With regard to the promotion of women to medium management posts in the banking sector and the computer industry, a step which was considered by more than one half of all the women questioned to be still more difficult for women than for men, an analysis of the women questioned according to the level of the position they now hold revealed that those holding medium-level and senior management positions consider promotion to medium-level management to be largely unproblematic, while those holding lower-level management positions regard promotion to medium-level management as still being more difficult for women than for men. This differentiated assessment of promotion prospects according to the level of the post concerned corresponds largely with
the career experience of the women questioned. The investigation showed that women in fact hold managerial positions at the lower, medium and senior levels in the department store company, the bank, and the public services sector enterprise, and that they hold managerial positions at lower and medium management levels in the computer industry.

The proportion of women among managerial staff in general is considerable in the lower and medium management levels (especially in the retail sector), and has increased over the past decade in the undertakings examined. This latter observation is also valid as regards the proportion of women in senior management positions. In view of this fact, it can be assumed that women's prospects of promotion are increasing. However, measured in terms of the aggregate proportion of female personnel on the payrolls of the various undertakings, their representation at managerial level remains disproportionately low in all the cases investigated; furthermore, the number of women declines in inverse proportion to the responsibility attached to the post.

The reasons given by both the representatives of the various undertakings and the women questioned for these less favourable promotion prospects or, otherwise expressed, the under-representation of women in management positions did not as a rule relate to professional competence, performance capacity or managerial aptitude. Neither the representatives of the respective undertakings nor the women questioned raised doubts as to the quality of these characteristics among the female personnel at all managerial levels. Nevertheless, in all the undertakings investigated, reference was made—primarily by the women questioned—to the generally lower level of
occupational qualification among women and their relatively lack of enthusiasm to take part in advanced training measures to explain their less favourable promotion prospects.

The reasons advanced by the representatives of the undertakings and the women questioned to explain the disproportionately low number of women in managerial positions in fact related for the main part to the role of the woman within the family, the corresponding role conflicts encountered in reconciling the demands of work and family life and the implications of these for their career, and to some extent to residual, traditional prejudices regarding the appointment of women to managerial positions, especially senior managerial positions and those fields of work which are considered to be atypical of women.

Societal insistence on the role of the woman within the family was at the origin of the reasons advanced by both the representatives of the undertakings and the women questioned to explain the disproportionately small number of women in managerial positions, namely, restricted occupational and regional mobility, shorter and less comprehensive occupational experience, shorter term of service with the firm, career interruptions or career abandonment in connection with family affairs, less job commitment, a less marked desire for promotion, and the disproportionately small number of female applicants for vacant managerial positions.

Primarily attributable to traditional concepts of the social roles of the respective sexes, these social barriers to the promotion of women to managerial positions make exacting demands in terms of professional and social competence, career attitude, and job commitment on those women who are to overcome them. However, the professional and social abilities required for the discharge of managerial functions—professional competence,
occupational expertise, leadership qualities, coordination and planning ability, high work performance, ability to work under strain, job commitment, etc.—were indeed found to be forthcoming from the female managerial personnel. The assignment of women to managerial posts and their accomplishment of the corresponding tasks are thus both processes which function for the main part smoothly and without friction in the various undertakings investigated.

Likewise largely unproblematic is the acceptance of female staff in managerial positions in the various undertakings, although some friction was reported to exist. The representatives of the computer firm and the public service enterprise reported that some prejudice exists against female managerial personnel and that some female managers indeed have self-assertion problems in those fields of work which are not considered to be typical of women or are otherwise male-dominated. Some of the women holding managerial positions who were questioned were also of the opinion that female superiors are not fully accepted or that the appointment of female managers provokes problems with the regular male and female staff. However, this opinion was found to be influenced by the level of the position held: women holding lower-level management posts were more convinced of its validity than those holding medium or senior management posts, thus revealing that the degree of acceptance of female managerial personnel increases, the higher the level of the position to which the woman is appointed. A not inconsiderable proportion of the women questioned also added that professional competence and personality can make a decisive contribution towards making the concept of women in management generally acceptable.
A positive correlation was found to exist among the women holding managerial posts at lower, medium, and senior management levels who were questioned in the survey between level of managerial responsibility and number of years of professional experience/service with the firm. The large majority had worked continuously, with no or only brief interruptions since completion of their educational or vocational training. Furthermore, this correlation was found to be the stronger, the higher the position in question. The reasons given to explain temporary career interruptions related to family responsibilities or job-related activities such as continuing training, with the importance of the latter reason increasing in line with the level of the position concerned.

An analysis of the women appointed to managerial positions also revealed a positive correlation between the level of the position held and the level of the incumbent's educational or vocational qualifications. This implies that the higher the level of educational or vocational qualification or expertise (in conjunction with participation in relevant in-firm training courses), the greater are the prospects of internal promotion. This is particularly true with respect to promotion to senior management positions. Furthermore, women appointed to managerial positions reported that their own professional experience had indicated that such a positive correlation between level of qualification/expertise and level of position was indeed necessary.

The findings of the investigation thus confirm that, assuming appropriate professional competence and experience and job commitment, the appointment of women to managerial posts and their subsequent fulfilment of the exacting technical and social
demands thus placed upon them takes place in the undertakings investigated without incurring any mentionable measure of friction.

The reconciliation of the demands of both job and family which the socially established image of the woman's domestic responsibilities necessitates was considered by the women questioned to likewise operate smoothly in the majority of cases, although the exacting demands of the job were sometimes reported to cause conflicts in the private/family sphere. Furthermore, a breakdown of the women questioned in the retail sector and the computer industry according to the level of their appointment revealed that private problems resulting from exacting career demands in fact increase with the level of the position held. The women who reported having job-related problems in their domestic/family lives referred to the fact that their exacting job demands left too little time for the partner, family, household duties, private life and recreation and also to the burden of long or irregular working hours and overtime. In contrast, it was at most in very isolated cases that a lack of understanding on the part of the partner for the necessary job commitment was reported as constituting a job-related problem in the private sphere.

Where conflicts in reconciling professional and domestic duties were reported to raise problems in the professional or the domestic sphere, the decision for their solution or evasion is taken in favour of either the career or the family depending on the degree to which the woman concerned is oriented towards occupational advancement.
In cases where the family orientation is strong, the woman's job commitment was found to extend only as far as the point at which occupational and domestic demands can be reconciled without incurring any large measure of friction. According to the representatives of the various undertakings, some women of this category do not take advantage of promotion opportunities offered them on account of the associated increase in job demands. Some of the women holding managerial positions who were questioned on this matter admitted that they were not prepared to accept further promotion at the expense of more exacting job demands—e.g. regional mobility—and more restrictions in the private sphere. Women in this category either decide to renounce the possibility of occupational advancement or they settle for a later or less significant promotion in order to accommodate family considerations.

In contrast, women whose promotion orientation is stronger, tend to decide in favour of their career when role conflicts occur or are foreseeable. Accordingly, a considerable proportion of women holding managerial positions was found to be prepared to accept greater regional mobility and greater restrictions on their private/family lives in the interest of gaining further promotion. This readiness to sacrifice domestic considerations to career considerations was generally found to increase, the higher the position currently held is located in the corporate functional hierarchy.

Occupational advancement and the breaking down of the social barriers which still tend to hinder the occupational advance—
ment of women are thus not independent of the career and promotion attitude of the women concerned. Promotion orientation and career planning are in turn influenced by a number of factors, including age, marital status, number of children, level of educational or vocational qualification, level of income, duration of occupational experience/service with the firm, personal experience in reconciling job demands with family demands, and the occupational promotion experienced previously.

The investigation showed that women with a high level of educational or vocational qualification and the corresponding opportunities for promotion are particularly inclined to develop a distinctly positive attitude towards their career and promotion aspirations and that this positive attitude is generally reinforced by their participation in internal training measures. These women are more likely to take higher job demands and more restrictions in the private sphere into account in order to be able to accept promotion, and tend to decide in favour of their career at the expense of the domestic sphere when role conflicts occur.

Since it is primarily women with a distinct professional competence and a positive attitude towards their career who constitute the potential reserve for the recruitment of female managerial personnel, the findings of the investigation permit the conclusion that the promotion of vocational training for women can make a valuable contribution towards improving women's prospects of promotion and better integrating women into positions of corresponding responsibility within the framework of corporate personnel recruitment and personnel assignment policies.

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In-firm training and career prospects for women in the Federal Republic of Germany
-Summary-

Dr. Barbara Hügelheimer

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