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IV

GERMANY

by  
Hedwig RUDOLPH

## I. INTRODUCTION

When socio-economic development creates or accentuates problems there tends to be a deficit of statistical information on the status quo and an even greater lack of information about the politically desirable state of affairs. A twofold effort is necessary: firstly to construct reasonable social indicators and secondly to collect the relevant statistical data.

The data presented in this paper were collected partly from official statistics or surveys and partly from internal statistics of the organisations concerned. The documentation would have covered very little ground, however, if the author had not undertaken a private survey in co-operation with G. Dybowski and U. Boehm.<sup>(1)</sup> There are still important gaps in the information and - as usual - the study poses more new questions than it answers.

The paper begins with a discussion of the interdependence of educational aims and information needed, followed by a brief sketch of the organisations in the post-formal education sector. The presentation of data on participation rates and the social characteristics of participants differentiates between vocational and non-vocational education. Although there are serious informational gaps, the final chapter on costs and financing indicates the importance of the financial arrangements as steering mechanisms.

## II. DATA ON POST-FORMAL EDUCATION AND THEIR RELATION TO EDUCATIONAL POLICY

The arguments of the numerous critics in the Federal Republic of Germany who pointed to various defects of traditional education policies were weakened by the rather poor statistical data on which they were based. At the same time, the lack of relevant statistics proved to be a serious handicap for the formulation of a rational educational strategy.

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1) See U. Boehm, G. Dybowski, H. Rudolph: Untersuchungen zur Struktur und Finanzierung des Weiterbildungsbereichs (forthcoming).

Where post-formal education was concerned it took some time to activate public interest and, consequently, information on the structure and development of this educational sector was almost completely lacking. It was for one sub-sector only, namely apprenticeship, that basic data on participation were published annually. However, the chambers of industry and commerce, which are relatively autonomous institutions responsible for the regulation and supervision of apprenticeship, reduced their statistical publication programme as soon as their statistics were used to back public criticism of the system in the early sixties. Since 1973, the Federal Ministry of Education, in co-operation with the chambers of industry and commerce, has been publishing more differentiated annual data on apprenticeships.

For the rest, organisations in the post-formal educational sector were not obliged to collect and publish data on their activities. This situation was indicative of the lack of public responsibility for this sector. It is not surprising that statistics on post-formal educational programmes are scarce and hardly comparable as they are structured according to the internal needs of the different organisations. "Critical" data, such as the contents of the programmes, the social structure of the participants, and the volume as well as the sources of finance were neither published nor even comprehensively collected. In 1970, more comprehensive data on post-formal education were collected in Baden-Württemberg,(1) while a similar survey in Bavaria is more selective.(2)

During the last few years, the state of statistics concerning post-formal education has slightly improved:

- As a consequence of the increasing recognition of public responsibility for all educational activities, plans are being discussed for the "financial persuasion" of organisations involved; public financial support should be given only if the receiving organisations are prepared to communicate adequate data on their activities.
- Moreover, in 1970 the Federal Parliament appointed a commission (the so-called Edding Commission) to collect data on participation, costs and financing of all kinds of vocational training, retraining, and upgrading outside the formal school-system and to make proposals for alternative arrangements.(3)

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- 1) See J. Schwerdtfeger, H.-J. Andräs: Bestandsaufnahme zur Erwachsenenbildung. Villingen 1970. Schriftenreihe des Kultusministeriums Baden-Württemberg, Reihe A Nr. 22.
  - 2) See Staatsinstitut für Bildungsforschung und -planung (Ed.): Stand der Erwachsenenbildung in Bayern. München 1971.
  - 3) See Sachverständigenkommission "Kosten und Finanzierung der beruflichen Bildung": Zwischenbericht. Bonn 1973.

However, the chances of building an information system on post-formal education which corresponds to the needs of educational policy are not very high. A proposal for such a system which was prepared by a study group of the German Council of Education in 1972 was not even passed as an official recommendation by the Council.(1)

### III. DEFINING THE BOUNDARIES OF POST-FORMAL EDUCATION IN THE FEDERAL REPUBLIC OF GERMANY

There is no "objective" way of defining the post-formal educational system because the decision as to what activities are included or excluded depends on the question(s) to be answered. A few of the numerous possible objectives of data collection in this field will be discussed briefly below:

- A very pragmatic approach would be to collect data on all educational activities outside the school sector so as to have information complementary to the existing school statistics. This would comprise all organised learning except in full-time schooling, irrespective of the contents, the methods, specific characteristics of the participants, or the organising, i.e. financing institutions.
- If, however, "post-formal education" is used as a synonym for adult education the adequate selection criterion would exclude, as a rule, all educational programmes in which young people participate as well as adults.
- "Post-formal education" could be taken as synonymous with post-compulsory education. Relevant questions in this context would be the comparison of participation rates of different social groups in the sectors of compulsory schools and in voluntary learning schemes.
- "Post-formal education" could mean all educational activities not directly organised by the state.

It could be asked whether and to what extent public responsibility guarantees generally agreed educational principles in this sector. According to this interpretation all privately organised learning has to be included and to be examined as to steering mechanisms and performance.

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1) The proposed system is characterised by the principles of openness and theory-orientation. The adequate degree of comprehensiveness on the one hand and of selectivity on the other is described as a function of political aims. See German Council of Education: Doc. 1137/72 (mimeographed) p. 10.

When deciding upon the definition to be adopted in this study the existence of a quasi-official definition cannot be ignored. According to the International Standard Classification of Education (ISCED) adult education comprises "organised programmes of education provided for the benefit of and adapted to the needs of persons not enrolled in regular school, college or university and generally older than fifteen".(1) This definition is similar to the first interpretation of post-formal education referred to above. But what is the aim? The definition does not cover the whole range of educational programmes in which adults participate. When comprehensive information is not available an accurate evaluation of the state of affairs is unlikely. Moreover, the boundaries set include a wide spectrum of possible participants. The clause that the programmes offered are to be adapted to the needs of the participants is extremely vague. The "needs" of persons older than fifteen differ considerably according to their basic education, level of vocational training, social status, and age.

As OECD favours this definition and because it is the basis for some estimates of the volume and costs of post-formal education in other countries (2) it will be adopted - as far as possible - in this study. The paper includes the educational activities of:

- private enterprises, the civil service and the armed forces (as employers);
- private educational institutions, correspondence courses, adult education colleges, and universities (as purely educational institutions);
- trade unions, employers' federations, and churches (as social groups partly engaged in education, too).

The educational programmes included in the definition range from secondary education (both general and vocational) to university level. Table 1 shows that the organisations normally offer programmes of different orientation and level. As will be argued later in more detail the actual state of statistics means that not all the quantitative data on participants is available. The situation is even worse concerning the financial inputs. The figures available - if at all - are global ones for the total programme of the respective organisations.

The programmes aggregated in the columns are by no means homogeneous. They are not only more or less ambitious in their learning targets but also differ in the orientation of their aims, thereby reflecting the respective socio-economic background of the organising institution.

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1) ISCED III Rev. p. 5.

2) See M. Woodhall: Adult education and training in the U.K.: An estimate of the volume and costs of all forms p.

Table 1

POST-FORMAL EDUCATION IN THE FEDERAL REPUBLIC OF GERMANY

| Institutions                | Level                                      |  | University Level                                   |
|-----------------------------|--|--|--|
|                             | Secondary Level                            |  |  |
|                             | General/political                          | Technical/vocational   |  |
| Public and private schools  | Abendrealschule<br>Abendgymnasium          | Off-the-job training and re-training for craftsmen, managers                         | Contact studies<br>- graduates<br>- all interested |
| Universities                |  |  |  |
| Correspondence institutions | Preparation for secondary degrees          | Vocational upgrading   |  |
| Private enterprises         |  | - apprenticeship<br>- upgrading for craftsmen, managers etc.                         |  |
| Civil service               |  | - apprenticeship/training<br>- upgrading for civil servants viz. members of the army | Preparation for university degrees                 |
| Armed forces                |  | Accounting courses   | Contact seminars in co-operation with universities |
| People's high schools       | Certificates in languages and arts         |  |  |
| Trade Unions                | Training of the functionary                | Vocational upgrading   |  |
| Employers' Federations      | Training of the functionary                | Vocational retraining and up-grading   |  |
| Churches                    | Courses on social affairs, education, etc. |  |  |



#### IV. ORGANISATIONAL FRAMEWORK OF POST-FORMAL EDUCATION IN THE FEDERAL REPUBLIC OF GERMANY AND ITS RELEVANCE FOR THE PROGRAMMES OFFERED

The following short description of organisations in post-formal education starts from the hypothesis that it is important to know whether the organisation is mainly concerned with educational activities or simply offers educational programmes inter alia.(1)

##### A. Purely educational organisations

There is a wide range of organisations specialising in educational activities: public and private schools, correspondence institutions, adult education colleges and universities. As a rule, they do not restrict their programmes to post-formal education and, moreover, the importance they give to this sector is not constant over time.

There are a number of public schools which offer general or vocational education in part-time courses (some in full-time courses, too) which require prior professional experience. As a rule, the programmes tend to have a labour-market-orientation. This is well in line with the individual interests of the potential participants, since for the majority of people a satisfactory utilisation of the qualifications acquired means better chances on the labour market.

All other purely educational organisations are highly demand-oriented in their programmes because they have to cover their costs by fees - to a considerable extent at least. As "consumers" show a clear preference for education and training that promises to pay in the short run, surplus-learning included in courses that integrate vocational and general subjects has practically no market chances. Moreover, integrated courses are strongly handicapped by the legal provisions for public finance that presuppose a clear division between general, political, and vocational learning.

##### B. Multifunctional organisations

The organisations offering post-formal education as a means of achieving their non-educational main functions cover a very wide and mixed spectrum. Agencies such as private enterprise, the civil service and the armed forces must be included, but so also must organisations like the Trade Unions, Employers' Federations, and the churches.

Training, upgrading, and retraining organised by private and by public employers - be it on the job or off - is closely linked to the qualifications actually needed in the relevant enterprise or administration. The polarisation between skilled specialists and unskilled

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1) For more detailed analysis see H. Rudolph: Recurrent education in the Federal Republic of Germany. CERI (mimeoed document) Paris 1972, p.8.

or semi-skilled workers (1) is reflected in the fact that the programmes offered by firms as well as by public administrations require at least a foreman's qualifications and concentrate very much on the managerial functions.

The armed forces, in addition to their military training, are offering a wide variety of vocational training so as to facilitate the soldiers' start in civil life after military service and also in order to attract volunteers.

The post-formal educational programmes of the trade unions, the employers' federations, and the churches are not, in their majority, vocationally oriented:

- the trade unions invest much effort in the training of their officials;
- the employers' federations concentrate on courses which tend to offer their interpretation of the socio-economic system;
- the churches try to maintain what is left of their social and political privileges by favouring an integrationist position between social classes.

## V. PARTICIPATION IN POST-FORMAL EDUCATION

Official policy statements characterise education as a powerful means for equalizing life chances. Arguments about intra as well as intergenerational disparities are put forward to justify the expansion of post-formal education. Educational policy which seeks to redress inequalities should result in proportionate participation rates of social classes and age groups in post-formal education. Whether and to what extent this goal is realised so far will be examined by disaggregating participation quotas in post-formal education. As the material consequences of educational deficits are most sharply and quickly felt in the labour market, the discussion starts with participation in vocational education (training, upgrading and retraining) followed by closer inspection of non-vocational education.

### A. Vocational education

Germany has a long tradition in basic vocational training of the so-called dual system where apprentices are trained in private firms with one day release per week to attend the obligatory public vocational schools.(2) For the vast majority of youngsters (1.2 to

1) See H. Kern, M. Schumann: Industriearbeit und Arbeiterbewusstsein. (2 Vol.) Frankfurt/M. 1970.

2) The number of pupils getting a complete vocational training in schools is relatively small although steadily increasing.

1.3 million) apprenticeship represents the normal follow-up after compulsory general education. Almost 17 per cent of the 1.6 million pupils in the part-time Berufsschulen are without a training contract.

Table 2

APPRENTICES ACCORDING TO ECONOMIC SECTORS (1970)

|                       | Total            |              | of which (%) |             |
|-----------------------|------------------|--------------|--------------|-------------|
|                       | Abs.             | %            | Male         | Female      |
| Industry and commerce | 723,415          | 56.9         | 59.4         | 40.6        |
| Trades                | 420,936          | 33.1         | 80.3         | 19.7        |
| Agriculture           | 38,133           | 3.0          | 75.8         | 24.2        |
| Others                | 87,636           | 7.0          | 28.7         | 71.3        |
| <b>Total</b>          | <b>1,270,120</b> | <b>100.0</b> | <b>64.1</b>  | <b>35.9</b> |

Source: Bundesministerium für Arbeit und Sozialordnung (Ed.):  
Arbeits- und sozialstatistische Mitteilungen, supplement to  
Vol. 2/1973, p. 5.

Among the aims of post-formal education - in the sense of further vocational training - upgrading is the dominant one (about 50 per cent), whereas adaptation accounts for 30 per cent, and retraining for 20 per cent.(1) The programmes are organised to 25 per cent by public institutions, to 33 per cent by private enterprises, viz. the chambers of industry and commerce as well as of trades, to about 40 per cent by trade unions, private schools, and associations. Only 50 per cent of all programmes are scheduled to lead to formalised certificates.

The accurate number of people attending post-formal vocational educational programmes in private schools is not known. In 1970, 22,000 of the 64,000 pupils in the so-called Fachschulen attended vocational private schools. Presumably the number of participants in schools which are grant-aided under the Labour Promotion Act can be taken as a good approximation as most schools should have adapted to the financing conditions of the Act. In 1970 about 50,000 grant-aided students (i.e. 50 per cent of the total) frequented courses in schools.(2) On the supposition that 50 per cent of them were in full-time courses (average duration two-thirds of a year) and 50 per cent were in part-time courses (equivalent to one-fourth full-time participant), this adds up to 22,500 man-years in 1970.

1) See (for the following, too) W.D. Winterhager: Weiterbildung in der Bundesrepublik Deutschland. In O. Peters and H. Collhardt (Ed.) Jahrbuch für Wissenschaft, Ausbildung, Schule. WAS '70. Köln 1973, pp.55-64, especially p. 57.

2) See Statistics of the Federal Institute for Labour.

It might be expected that the chances to participate in post-formal education are most promising in the civil service and in the armed forces, employment sectors that are directly under public supervision. In fact, all civil servants have a legal right to paid leave of absence for up to 12 days a year.(1) However, it is not possible to get a clear impression of the civil service's educational activities since:

- courses are partly organised for specific career levels irrespective of the administrative sectors;
- some courses are centrally organised by the Federal Government, some by the administrations of the Länder and some regionally;
- statistics are not published - not to speak of comparable statistics.

Figures in Table 3 by no means give a comprehensive picture of participation in post-formal education.

Table 3

NUMBER AND LEVEL OF PARTICIPANTS IN POST-FORMAL  
EDUCATION IN THE CIVIL SERVICE, THE ARMED FORCES,  
FEDERAL POST, AND FEDERAL RAILWAYS  
(1971 if not otherwise indicated)

| Organising Institution   | Participants       | Career Level                         |
|--|--------------------|--------------------------------------|
| 1. Federal Academy for Public Administration                               | 1,300              | Higher (partly medium) level         |
| 2. Academy for Administration, Berlin                                      | 1,800              | Medium and higher level              |
| 3. Academies for Economics and Administration                              | 3,000              | Medium and higher level              |
| 4. Ministries of the Interior  | -                  | Medium and higher level              |
| 5. Ministries of Education   | 70,000             | Medium and higher level              |
| 6. Labour Administration (1970-71)   | 10,000             | All levels                           |
| 7. Armed Forces (1970)<br>- external courses                               | 170,000<br>100,000 | All levels                           |
| 8. Federal Railways<br>- training and upgrading<br>- "voluntary education" | 449,000<br>20,000  | All levels<br>Lower and medium level |
| 9. Federal Post  | 64,000             | All levels                           |

Source: Private surveys (see p. 152).

1) See Verordnung über Sonderurlaub für Bundesbeamte und Richter im Bundesdienst vom 18.8.1965, BG Bl I, p.902.

While 1 to 4 include some programmes which are not specific to the particular administrative sector, 5 and 6 give activities specific to the sector. Neither group is comprehensive, however; this is all the more deplorable in that 5 includes further education for teachers.(1)

The programmes of post-formal education in the civil service concentrate on the adaptation of vocational skills and knowledge and especially on the training (upgrading) of administrative "managers". It is not therefore surprising that the participants are mainly recruited among the medium and higher career levels.

The relevance of post-formal educational activities in the civil service is stressed by the fact that the courses are normally held during working hours and the participants are entitled to paid release. The length of the courses differs widely with a remarkably positive correlation between the duration and the position of the participants in the civil service hierarchy. As a guess one may take three weeks as the average duration. Compared with full-time courses of 40 weeks per year this equals about 68,000 man-years.

For quite a number of professions there is a long-established tradition of full-time university study as the sole obligatory qualification. For many of them, however, especially teaching, medicine, and law, a certain period of in-service training is necessary before the graduates are eligible to practise. In contrast to the development in the United Kingdom, for example, the duration of in-service training has been reduced in the Federal Republic of Germany in the last few years. At present it varies between 12 and 24 months.

There are no data available on the number of people entering and finishing in-service training. The graduates per year in the respective fields are no more than a crude indicator because an unknown number might prefer to use their qualifications in other sectors of the labour market (not demanding in-service training) either forever or for some time. By doubling (2) the number of successful German candidates in summer-term 1970 one gets about 3,000 graduates in law and 15,000 graduates for teaching professions.(3) In the same year, the number of medical interns was 5,750.(4) On the basis of an average duration of two years for the first two professions mentioned and of one year in medicine this amounts to an estimated 42,000 man-years.

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1) A commission for educational planning with representatives both of the Federal and of the Länder governments assumes that 17 per cent of all teachers, i.e. about 70,000, participated in further education in 1970.

See Bund-Länder-Kommission für Bildungsplanung: Bildungsgesamtplan, Vol. 1, p. 37. According to our explorations this figure must be taken as the lower limit.

2) There are two examinations each year.

3) See Statistical Yearbook for the Federal Republic of Germany 1973, p. 96.

4) See Wirtschaft und Statistik, 1973, p. 23.

Because of rapid socio-economic development, university graduates are obliged to adapt the standard of their knowledge at fairly short intervals. Although universities in the Federal Republic of Germany were given a mandate to develop curricula for contact studies a number of years ago, little progress has been made so far. Some so-called contact-seminars are organised especially in the sciences but participation data are not available.

There is, however, a growing number of "university seminars" organised as a rule co-operatively by universities and people's high schools.(1) The first seminars were organised in the late 1950s, and over 250 seminars with almost 5,000 participants were reported for the winter term 1970-71.(2) Taking into account that the seminars are held twice a year and have an average duration of 40 hours this is equivalent to 500 full-time student/years.

The educational background of the participants reveals a remarkable shift towards university graduates (about 20 per cent) and among them an increasing number of teachers. As a consequence the "university seminars" to some degree function as contact studies.

According to reliable estimates, private enterprises and the chambers of industry and commerce as well as the trades organise about one third of the vocational post-formal education activities.

Data on the programmes of the chambers of industry and commerce are available.(3) In 1971, seminars for vocational upgrading (lasting on average half a year) were attended by 14,052 people and the courses for vocational adaptation (normally one day only) by 58,313 people. This adds up to 7,317 man-years. In addition, about 22,000 vocational examinations (higher than the basic training level) were organised by the chambers in 1971.(4) Candidates may take these examinations even if they have not attended the preparatory courses offered by the chambers.

The most comprehensive data on participation in post-formal education activities have been collected for Baden-Württemberg. The following table shows the number of participants in courses and is based on the assumption that each participant in a course is equivalent to 1/40 full-time student.

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- 1) See Arbeitskreis Universitäre Erwachsenenbildung (Ed.): Universitäre Erwachsenenbildung - Wissenschaftliche Weiterbildung. Blickpunkt Hochschuldidaktik, Vol. 16, Hamburg 1971, pp. 7-26.
  - 2) See H.D. Schmitz: Die Institutionalisierung der universitären Erwachsenenbildung in Deutschland. In: Arbeitskreis ... op. cit.
  - 3) See Deutscher Industrie- und Handelstag (Ed.): Berufsbildung 1972-73. Bonn (1973), p. 22.
  - 4) Ibid., pp. 94-103.

Table 4

## PARTICIPANTS IN COURSES IN BADEN-WURTEMBERG (1972)

| <u>Organising Institution</u> |                |
|-------------------------------|----------------|
| Public and private schools    | 8,750          |
| Universities                  | 28,750         |
| Private enterprises           | 31,375         |
| Civil Service                 | 41,250         |
| Adult education colleges      | 84,250         |
| Trade unions                  | 25,000         |
| Employers' federations        | 29,000         |
| Churches                      | 54,375         |
| Others                        | 47,500         |
| <b>Total</b>                  | <b>350,250</b> |

Source: Loreth/Schmalfluss - Soth: Weiterbildung - ein neues Aufgabengebiet der Statistik. In: Baden-Württemberg in Wort und Zahl, 22. Jg.H.1/Jan. 1974, p. 18, Tab. 2.

The combined effects of the various post-formal education activities - as sketched above - are analysed in two comprehensive surveys made in 1970 and covering the period 1965 to 1970:

- the Federal Statistical Office scrutinised an official 1 per cent micro-census of the gainfully employed between 20 and 55 years of age;(1)
- the (official) Institute for Labour Market and Professional Research (Erlangen) took a 0.5 per cent representative sample of all male gainfully employed.(2)

The most striking results of the two surveys are shown in Table 5 below.

According to the micro-census 11.8 per cent of all people interviewed participated in post-formal vocational education (the average participation rate of men being almost twice that of women). If this percentage is related to the total of the relevant population group, there are 2.1 million participants.

- 1) See Statistisches Bundesamt: Bevölkerung und berufliche Fortbildung. In Wirtschaft und Statistik, Vol. 24 (1972), pp. 326-329.
- 2) See Ch. Brinkmann, K. Gottwald, L. Schuster: Die berufliche Fortbildung männlicher Erwerbspersonen. Parts 1 and 2. In: Mitteilungen des Instituts für Arbeitsmarkt- und Berufsforschung, Erlangen, Vol. 5 (1972), pp. 1-30 and 95-130.

Table 5

PARTICIPATION RATES (1) OF MALE EMPLOYEES IN POST-FORMAL  
VOCATIONAL EDUCATION ACCORDING TO AGE, LEVEL OF  
GENERAL EDUCATION, AND PROFESSIONAL STATUS (1965-1970)

| Characteristics of Participants               | Micro-census | 0.5 sample |
|---|--------------|------------|
| Male employees (total)                        | 11.8         | 18.8       |
| Age:  |              |            |
| 20-35   | 19.1         | 27.2       |
| 35-55   | } 10.4       | } 15.7     |
| 55 and over                                   |              |            |
| General education:                            |              |            |
| - without final or with primary school        | 9.5          | 15.1       |
| - with secondary school medium level          | 22.9         | 33.9       |
| - with secondary school higher level (Abitur) | 20.9         | 39.4       |
| Professional status:                          |              |            |
| - civil servants                              | 25.6         | 39.9       |
| - clerks                                      | 16.1         | 33.5       |
| - workers                                     | 5.2          | 11.8       |

1) Quota of participants in the respective group of employees.

The representative sample concentrating on male employees gives a participation rate of 18.8 per cent.(1) This means that in the period under discussion 2.73 million of male employees participated in some sort of vocational training. 44 per cent of the sample attended full-time courses of which almost three-fourths were shorter than one month. On the basis of an average duration of two weeks and a yearly capacity of 40 weeks this comes up to 136,500 full-time equivalents in the five years under review or 27,300 per year.

Since both surveys cover the period 1965 to 1970 they do not reflect adequately the consequences of the Labour Promotion Act passed in 1969. The intention of the Act was to promote vocational training, adaptation, and upgrading as well as retraining by offering financial incentives:

1) The fact that participation rates according to the representative sample are generally higher than in the micro-census may be attributed to slightly differing statistical definitions and to the influence of the respective context of the two surveys.



- institutions can obtain financial subsidies to expand their capacity for further vocational training;
- individuals participating in further vocational education receive under certain conditions subsistence payments and a reimbursement of the fees (up to a maximum of 1,75 DM per hour).

At the end of 1970 about 82,200 male and 17,000 female participants were grant-aided under the Act.

Table 6

PARTICIPANTS IN DIFFERENT TYPES OF VOCATIONAL EDUCATION  
GRANT-AIDED UNDER THE LABOUR PROMOTION ACT (1970)

| Type of Training              | Male   |      | Female |      | Total  |   |
|-------------------------------|--------|------|--------|------|--------|---|
|                               | Abs.   | %    | Abs.   | %    | Abs.   | % |
| Adaptation and up-<br>grading | 66,251 | 80.6 | 10,286 | 60.8 | 76,537 |   |
| Retraining                    | 12,226 | 14.9 | 4,677  | 27.7 | 16,903 |   |
| Job instruction               | 3,719  | 4.5  | 1,630  | 11.5 | 5,349  |   |

Source: Federal Institute for Labour.

The figures in Table 6 do not allow conclusions to be drawn about the level of qualification attained. The duration of the courses varies considerably. About 50 per cent of the participants attend full-time courses, the average duration being 7 to 8 months, while participants in part-time courses may be taken as equivalent to 1/12 man-year. On this basis participants grant-aided under the Labour Promotion Act in 1970 are equal to 37.174 man-years.

The participants grant-aided under the Act are disaggregated in Table 7 according to their social characteristics. The results are compared with the respective quota of the representative sample cited above that indicates the status quo ante.

The most remarkable results of the survey are:

- Male employees over the age of 35, who are already under-represented among participants in the "representative sample", are extremely rare under the Labour Promotion Act.
- While people with primary schooling only are normally represented under the grant-aided group, those with incomplete primary schooling are hardly represented at all.

Table 7

MALE PARTICIPANTS IN POST-FORMAL VOCATIONAL EDUCATION  
ACCORDING TO AGE, LEVEL OF SCHOOLING, AND EMPLOYMENT  
POSITION

| Characteristics<br>of the<br>participants | Representative Sample |                                | Labour<br>Promotion<br>Act    |
|---|-----------------------|--------------------------------|-------------------------------|
|   | Total<br>%            | Participants<br>1965-1970<br>% | Participants<br>end 1970<br>% |
| Age:                                      |                       |                                |                               |
| under 35                                  | 39.2                  | 49.2                           | 84.4                          |
| 35-55                                     | } 60.8                | } 50.8                         | 15.3                          |
| 55 and over                               |                       |                                | 0.3                           |
| Level of schooling:                       |                       |                                |                               |
| primary school                            |                       |                                |                               |
| - incomplete                              | } 77.8                | } 67.1                         | 1.9                           |
| - complete                                |                       |                                | 79.1                          |
| secondary school                          |                       |                                |                               |
| medium level                              | 11.2                  | 20.3                           | 14.9                          |
| higher level                              | 5.3                   | 11.1                           | 1.0                           |
| Employment position:                      |                       |                                |                               |
| - civil servants                          | 7.8                   | 16.7                           | } 31.6                        |
| - clerks                                  | 23.5                  | 42.9                           |                               |
| - workers                                 | 51.4                  | 27.7                           |                               |

Sources: 1. Ch. Brinkmann et al. op. cit.

2. Bundesanstalt für Arbeit: Förderung der beruflichen Bildung. Nürnberg 1971.

- Almost two-thirds of the participants are workers; but closer inspection reveals that skilled workers tend to be favoured, whereas people without comprehensive vocational training are clearly at a disadvantage.(1)

#### B. Non-vocational Education

From among the organisations offering predominantly non-vocational post-formal education, only a few large ones can be included in this survey: some public schools of the so-called zweiter

1) See Bundesanstalt für Arbeit: Gemeinsamer Beitrag von Vorstand und Verwaltungsrat zum Bericht der Bundesregierung gem. para. 239. Nürnberg 1972, p. 33.

Bildungsweg, the people's high schools, the trade unions, and the churches. They all concentrate most of their activities on evening courses or lectures.

A number of public evening schools offer adults a second chance to get secondary general certificates. The 57,000 German pupils reported in 1971 relate to different types and levels of schools as follows:(1)

|                       |        |
|-----------------------|--------|
| - Abendgymnasium:     | 11,000 |
| - Abendrealschule:    | 9,000  |
| - Berufsaufbauschule: | 37,000 |

In the programmes of the adult education colleges the ratio of courses to lectures has been changing recently in favour of courses: between 1970 and 1972 the number of participants in single lectures increased from 3.6 million to 3.7 million while participation in courses rose from 2.1 million to 2.6 million.(2) This shift towards more intensive learning forms is well in line with the increasing weight of language courses and of hobby courses in the adult education colleges.(3)

Leaving the single lectures out of the calculations and taking the participation in a course as equivalent to one week full-time learning this comes to 63,500 man-years in 1971.(4) Among the participants in the programmes of the people's high schools workers are hardly represented, while pupils and graduates of secondary schools as well as people from outside the labour market are clearly over-represented.

The statistics on the post-formal educational activities of the trade unions given in Table 9 must be interpreted with a number of reservations:

- programmes are organised partly by the central organisation, partly by regional sub-divisions on the different levels;
- available statistics on programmes sometimes differentiate according to the organising institution, sometimes according to the financing body;
- the data on participation are not always informative concerning the type of activity (course or single lecture).

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1) See O. Peters and H. Gollhardt (Ed.): op. cit. p. 86f.

2) See Statistical Yearbook for the Federal Republic of Germany 1973, p. 98.

3) Results of an internal analysis of adult education colleges.

4) One year = 40 weeks.

Table 8

## ADULT EDUCATION COLLEGES: COURSES AND PARTICIPANTS (1971)

|  | Course         | Participants     |
|--|----------------|------------------|
| 1. Politics and society                                    | 5,136          | 141,075          |
| 2. Education, philosophy, religion, psychology             | 3,814          | 110,097          |
| 3. Art   | 4,543          | 90,982           |
| 4. Regional and environmental studies                      | 1,573          | 53,858           |
| 5. Mathematics, physical and natural sciences, technology  | 8,726          | 198,658          |
| 6. Business management                                     | 12,659         | 269,572          |
| 7. a) English  | 16,373         | 328,587          |
| b) French  | 8,065          | 141,657          |
| c) Italian   | 1,833          | 30,991           |
| d) Russian   | 1,578          | 21,427           |
| e) Spanish   | 1,732          | 31,799           |
| f) German as a foreign language                            | 2,702          | 57,348           |
| g) Other foreign languages                                 | 2,223          | 32,978           |
| h) German for German speakers                              | 2,798          | 55,685           |
| 8. Manual work and leisure occupations                     | 20,705         | 322,256          |
| 9. Domestic science  | 9,836          | 144,718          |
| 10. Health and hygiene                                     | 16,321         | 359,617          |
| 11. Courses leading to the diploma of compulsory schooling | 2,181          | 49,317           |
| 12. Special courses  | 2,418          | 72,269           |
| Various  | 1,493          | 27,708           |
| <b>Total</b>   | <b>126,245</b> | <b>2,540,599</b> |

The majority of the educational activities of the trade unions takes place in leisure time: in the evening and above all at week-ends.<sup>(1)</sup> This is surprising as quite a number of agreements include regulations for educational leave, although not always for paid leave. The programmes concentrate largely on single lectures although the

1) In Baden-Württemberg, e.g., 92 per cent of trade union educational activities took place outside the normal working hours. See J. Schwerdtfeger, H.-J. Andräs: op.cit. p. 55.

Table 9

PARTICIPANTS IN EDUCATIONAL ACTIVITIES OF THE TRADE UNIONS  
(1970 if not otherwise indicated)

| Trade Unions   | Participants (000) |            |
|--|--------------------|------------|
| Trade Unions Council (DGB)                               |                    | 398        |
| - general and political education                        | 127                |            |
| - vocational   | 71                 |            |
| - 'Arbeit und Leben' (co-op. with people's high schools) | 200                |            |
| Single trade unions (of DGB)                             |                    | 145        |
| - Metal (1971)   | 47 (1)             |            |
| - Chemistry (1971)                                       | 60                 |            |
| - Public Service   | 3 (2)              |            |
| - Railways (1968-71)                                     | 11                 |            |
| - Police   | 24                 |            |
| Employees' Union (DAG) (1971)                            |                    | 247        |
| - general and political education                        | 153                |            |
| - vocational education                                   | 94                 |            |
| <b>Total</b>   |                    | <b>800</b> |

1) Activities financed by the central organisation.

2) Activities organised by the central organisation.

Sources: Published or internal statistics of the organisations cited and private surveys (see p. 152)

number of courses of longer duration is increasing.(1) The new law on the workers' council passed in 1972 secures paid leave for educational activities of the council's members. If 100,000 participants are added to the figures in Table 9 (for the trade unions not included in the sample) and assuming an average duration of half a week, this is equal to 11,000 man-years.

The data situation concerning the post-formal educational programmes of the churches is deplorable. It has not been possible to collect comprehensive information on participation for either Catholic or Protestant organisations.(2)

1) The figures for the Metal Workers' Union cited in Table 9 above include, e.g., 10,331 participants in seminars lasting one to six weeks and totalling 16,353 participant-weeks.

2) To illustrate: even a survey initiated by a Catholic institution was practically doomed to failure as the Catholic organisations concerned were unwilling to undergo "control".

The figures included in Table 10 are very unsatisfactory because they:

- have many gaps;
- concern different years, and
- do not differentiate between single lectures and courses.

Table 10

PARTICIPANTS IN POST-FORMAL EDUCATIONAL ACTIVITIES  
OF THE CHURCHES

(000)

| Länder            | Year    | Catholic | Protestant |
|-------------------|---------|----------|------------|
| Baden-Württemberg | 1966-67 | 518      | 389        |
| Baden             | 1970    | -        | 154        |
| Hesse             | 1969    | 32       | -          |
| Bavaria           | 1968    | -        | 217        |
| Lower Saxony      | 1969    | -        | 63         |
| Rhineland-Pfalz   | 1970    | 207      | -          |
| Total             |         | 757      | 823        |

Source: Private surveys (see p.152).

There are considerable differences in the regional intensity of educational activities of the churches and as the proportion of courses to lectures is undefined (1) the data cannot be used as a basis for further estimates.

The correspondence courses in the Federal Republic of Germany are handicapped in their expansion by a history of unfair practices of some institutions in the past. In order to give this promising learning form official backing, two public control institutions have been created in the last few years: one is responsible for courses leading to the completion of public school (both general and vocational), the other supervises vocational courses.

At present, about 250,000 people participate in correspondence courses of which 100,000 aim at the completion of public school. Since information on the average length of the courses is not available the calculation is done on a 3:1 basis which results in about 85,000 full-time equivalents.

1) A strong concentration on single lectures is reported at least for Bavaria: about two-thirds. See Staatsinstitut für Bildungsforschung und planung: op. cit. p. 47.

Still more recently, post-formal education in the form of multi-media courses has started in the Federal Republic of Germany:

- In 1967, approximately 14,000 people attended the courses of the Bavarian television (Telekolleg) using the curricula of the Berufsaufbauschule (medium secondary degree).
- In 1973, "Training for the Trainers" was attended by 12,000 participants of whom 6,000 passed the first intermediate examination.(1)

## VI. COSTS AND FINANCING OF POST-FORMAL EDUCATION

Calculating the costs of post-formal education is normally a knotty problem and even more if an ambitious cost concept is to be used. If direct as well as indirect and social costs are to be included the value to be imputed to the resource input is normally not identical with the market prices. "Costs" then must be calculated on the basis of political decisions as to relevant alternative uses.(2)

An examination of the costs of post-formal education must be paralleled by an inspection of the sources of finance. The financial contributions out of individual incomes, funds of private firms, and public budgets cannot be taken as an indicator for the final incidence as due to shifting processes those groups that pay the money are rarely identical with those that ultimately have to bear the financial burden. The relative weights of the different contributions can be taken only as an indicator of the extent to which different groups decide upon the resource use for educational purposes.

Among the refinancing arrangements the most important are the public subsidies out of Lander budgets according to the respective laws on adult education and the parafiscal fund of the Labour Promotion Act. While comprehensive and comparable data on Lander subsidies are not available the statistics on the Labour Promotion Act are impressive: the payments for grant-aid to individuals rose from 572 million DM in 1970 to almost 1.5 billion DM in 1972, of which almost two-thirds were subsistence payments.(3) It must be borne in mind that 50 per cent of contributions to the fund are paid out of individual income and 50 per cent out of private firms' funds.

If one were to aspire to the level of cost data quoted above, the statistics available are far from adequate: they do not include all cost factors, use market prices as a rule, and are heavily aggregated

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1) As of April 1975, all trainers need a special certificate.

2) For more detail see "Educational expenditure in Great Britain", OECD (mimeographed), p. 14.

3) See Statistics of the Federal Institute for Labour.

so that a differentiation according to type or level of education is not possible. It is only for the sectors of apprenticeship and for further vocational training organised or financed by private firms that detailed data are available.

The Edding Commission used a comprehensive cost-concept including indirect as well as social costs in its survey.(1) The results are restricted to direct and indirect costs, however, and provide the following figures:(2)

- Of the total gross costs of 18.6 billion DM 53.7 per cent must be attributed to basic vocational training, 39.9 per cent to further vocational training, and 6.4 per cent to other training activities of the firms.
- The gross costs are unequally distributed among the economic sectors: industrial enterprises with more than 1,000 employees incur 22 per cent, whereas the trades finance slightly more than 1 per cent only.
- The net costs of basic vocational training (i.e. taking into account productive work of the apprentices (3) are not distributed according to the number of apprentices: of the total net costs of 4.6 billion DM the trades only finance 13.6 per cent although they train almost one-third of all apprentices.
- Similarly, the distribution of the costs for further vocational training is biased: industrial enterprises with more than 1,000 employees finance 39.4 per cent, although their quota of the working population is only 17.4 per cent, whereas the trades finance as little as 1.6 per cent, while the quota of the gainfully employed in this sector is 18.1 per cent.

The enormous sums that private firms invest each year in vocational education do not represent a real burden for them. The net costs are normally shifted via price increases to the consumers or - under certain conditions - are refinanced under the Labour Promotion Act. In 1970, about 30 per cent of subsidies to individuals were given to participants in courses organised by employers (or their institutions), and 36 per cent of institutional subsidies were allotted to institutions with "affinity" to employers.(4)

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- 1) See Commission "Kosten und Finanzierung der beruflichen Bildung": op.cit. p. 12.
  - 2) Restricted paper of the Commission.
  - 3) The calculation of productive work is problematic as it is based on equivalents of skilled workers' pay, i.e. it includes profit elements.
  - 4) See Statistics of the Federal Institute for Labour.



Concerning in-service training for the professions it can be assumed that the net costs are zero because:

- the productivity of the "trainees" - as a rule - can be regarded to equal their pay;
- personal costs for "trainers" can be neglected as they normally have sufficient spare-time to give the necessary instruction;
- the life-time incomes of the trainees are not generally lower than those of graduates without in-service training.

The public budget figures are the only indicators for the costs incurred in post-formal vocational education in the civil service, the armed forces and public service units (Post, Railways).

Table 11

BUDGET FIGURES FOR POST-FORMAL EDUCATION IN THE PUBLIC SECTOR

(000 DM)

| Department/Institution            | Year | Amount  |
|-----------------------------------|------|---------|
| Federal Academy for Civil Service | 1971 | 1,700   |
| Administration Academy (Berlin)   | 1971 | 257     |
| Ministries of the Interior        |      |         |
| - Baden-Württemberg               | 1972 | 210     |
| - Bremen                          | 1972 | 1,157   |
| - Hamburg                         | 1972 | 463     |
| - Hesse                           | 1971 | 60      |
| - Lower Saxony                    | 1972 | 250     |
| - Northrhine-Westphalia           | 1972 | 635     |
| - Schleswig-Holstein              | 1972 | 116     |
| Armed Forces                      | 1971 | 60,800  |
| Federal Railways                  | 1971 | 43,100  |
| Total                             |      | 110,000 |

Sources: Federal viz. Länder budgets and private surveys (see p. 152).

The figures in Table 11 above show serious gaps and are not comparable as they have different base years, partly include basic training as well as further vocational education, and do not account equally for decentralised activities. The underlying cost-concept generally includes payments for the teaching staff, accommodation expenses for the participants, and general running costs. The wage payments for the participants are the responsibility of the employing sectors. Post-formal vocational education in the civil service, the armed forces, and public service units is almost completely financed out of public

budgets, while financial contributions by the participants are rare exceptions.

According to their internal statistics the people's high schools spent about 116 million DM in 1971. This figure may not be altogether accurate, however. Almost half of all people's high schools are communal organisations and to a large extent benefit from public services free-of-charge. Moreover, the relevance of the figure for our discussion is questionable since the expenses for single lectures (that are not included in our definition of post-formal education) cannot be separated for lack of information on the relative cost-intensity of lectures, viz. courses.

The people's high schools on average get more than half of their finance out of public funds, mainly communal and Länder budgets. The proportion between revenues from fees on the one hand and public grants on the other shows a wide variety in the different Länder, the fees amounting to 53 per cent in Baden-Württemberg and to 11 per cent in Berlin, for example.

The trade unions give only vague figures about the costs of their post-formal educational activities. Statistics are available for some unions only for their educational institutions, relating moreover to different years.

Table 12

EXPENDITURE OF TRADE UNIONS FOR POST-FORMAL EDUCATION

(In million DM)

| Union/organisation   | Expenditures |
|--|--------------|
| Trade Union Council (DBG)<br>- central organisation (1967) | 3,3          |
| Metal Industry Union (1968-70)                             | 18.3         |
| Chemistry Union (1969-71)                                  | 6.8          |
| Trade Union Centre for vocational up-<br>grading (1971)    | 30.0         |
| "Arbeit und Leben" (1970)                                  | 3.9          |
| Total  | 65.0         |

Sources: Official statistics of the trade unions and private surveys (see p.152).

The cost concepts underlying these figures are not clearly explained. As a consequence, it is open to discussion as to whether all cost factors are included and whether the post-formal educational activities mentioned above are completely covered.

The trade unions finance their political educational activities almost exclusively out of subscriptions. It is only for vocational courses that cost-covering fees are charged to the participants; these can be refinanced under the Labour Promotion Act to a considerable extent. The courses of "Arbeit und Leben" are almost completely financed out of public funds.

The situation is most complicated where costs and financing of post-formal education by the churches are concerned. Even the survey

Table 13

PARTICIPANTS (FULL-TIME EQUIVALENTS), COSTS, AND SOURCES OF FINANCE OF POST-FORMAL EDUCATION IN THE FEDERAL REPUBLIC OF GERMANY ( DIFFERENT YEARS)

| Organisation/type                      | Participants (1000) |                       | Costs (mill. DM) | Sources       |                   |              |
|--|---------------------|-----------------------|------------------|---------------|-------------------|--------------|
|  | Mainly general ed.  | Mainly vocational ed. |                  | Indiv. income | Priv. firms funds | Public funds |
| <u>1. Initial vocational training:</u> |                     |                       |                  |               |                   |              |
| Apprenticeship                         |                     | 1,300                 | 4,600 (net)      |               | x                 |              |
| In-service training                    |                     | 42                    | n.a.             |               | x                 |              |
| <u>2. Further education in:</u>        |                     |                       |                  |               |                   |              |
| Private firms                          |                     | n.a.                  | 7,500 (gross)    | o             | x                 |              |
| Chambers of industry and commerce      |                     | 8                     |                  |               |                   |              |
| Civil service/armed forces             |                     | 68                    | 110              |               |                   | x            |
| Professions                            |                     | 0.5                   | n.a.             | x             |                   |              |
| Adult education colleges               | 635                 |                       | 120              | x o           |                   | x            |
| Trade unions                           | 11                  |                       | 65               | x o           |                   | x            |
| Churches                               | n.a.                |                       | n.a.             |               |                   | x            |
| Correspondence/multi-media courses     | 85                  |                       | n.a.             | x o           |                   | x            |

x = relevant sources

o = refinancing under the Labour Promotion Act possible

initiated by the Catholic institution cited above was not successful in this respect: only 17 per cent of the organisations gave information on the volume and sources of their finance which were, moreover, lacking in accuracy. There is no basis for estimates nor even guesses.

The churches can rely on a special tax (amounting to 8-10 per cent of the income tax) to finance their activities. In addition they get public funds as subsidies to their educational programmes. Given these sources, the revenue out of fees can be assumed to be marginal.

The participants, the costs, and the sources of finance of post-formal education are shown in Table 13. In view of the highly unreliable data concerning the relative weights of different sources of finance no concrete figures are indicated in the last three columns. Funds from private firms and public funds are in most cases indicated as sources (*inter alia*). The burden, however, is ultimately borne by the mass of consumers (via price increases) or by the tax-payers in general, i.e. predominantly by the employees.