# The Comparison of Industrial and Agricultural Earnings

by Herbert Kötter

Research Association for Agricultural Policy and Rural Sociology, Bonn

A report submitted to the 44th Session of the International Labour Conference held in June 1960 <sup>1</sup> drew attention to the large gap between the standards of living of industrial and agricultural workers in many countries and to the social and economic problems which result from it. Objective comparison of wage and income levels in the two sectors is in certain cases a valuable element in schemes of agricultural and rural development designed to remedy this state of affairs.

Basing himself on his experience with a recent survey in the Federal Republic of Germany, Mr. Kötter attempts to lay down guiding principles that would be widely applicable to such comparisons and to define clearly their limitations and difficulties.

NO comparison can be perfect. In an industrial economy and society, however, in which there is, in theory at least, free movement of manpower, it is only natural that comparisons should be made between earnings in different occupations and branches of activity. Steady equalisation of opportunity is a characteristic of industrial society; yet it would be a mistake to suppose that the tendency detected by contemporary sociologists for industrial development to produce a-middle-class society means that all differences will be done away with. When the proportion of industrial workers reaches a certain point, their way of life is bound to have a decisive effect on society at large. The mass of the population begins to base its aspirations on the situation of industrial employees, and this generalised criterion of what constitutes a desirable standard of living, and in particular an attainable income,

<sup>&</sup>lt;sup>1</sup> I.L.O.: Contribution of the I.L.O. to the Raising of Incomes and Living Conditions in Rural Communities, with Particular Reference to Countries in Process of Development, Report VI, International Labour Conference, 44th Session, 1960 (Geneva, 1959).

displaces old class and regional standards, such as the concept of an appropriate "class diet" that was once widely accepted in rural society.

In theory, of course, any comparison is feasible. It would be perfectly possible to compare the income of a seasonal farm labourer with that of a highly skilled industrial worker in regular employment. But this would amount to a mere statement of facts, and few, if any, practical conclusions could be drawn from the exercise. If the results of comparison are to have any significance at all, there must be some affinity between the groups concerned, which must therefore be chosen in accordance with the aim in view.

Before this fundamental question of principle is discussed more thoroughly, however, a word must be said about the elements of comparison. Most frequently only income is taken into consideration, though occasionally hours of work and the situation of the different groups with regard to social security (degree of protection against sickness, old age, unemployment, etc.) are also included. Ideally, such immaterial factors as particular ways of life, privileges and social prestige should be covered as well. Bellerby attaches particular importance to them and notes that certain imponderables such as work satisfaction, responsibility or prestige, which he lumps under the general heading of "psychic attractions", can reconcile workers to a relatively lower income.¹ Conversely, a higher income does not always make up for the lack of such "psychic attractions".

Whatever objections there may be to basing comparison on income alone, the fact remains that it is the main element considered in most studies. Quantitative evaluation of income is, after all, relatively simple, whereas for other factors it is complicated, if not impossible. Even so, there are many pitfalls to be avoided and the method to be followed has to be established with great care.

#### COMPARABILITY AND THE CHOICE OF GROUPS FOR COMPARISON

The first thing to be considered is the aim of the comparison. Where the primary concern is to assemble facts, far greater latitude is possible in selecting the groups to be compared. As we have said, in theory any group can be compared with another. However, if the intention is to support demands or to justify economic or social measures, great care is required. A case in point is provided by the Agricultural Act of the Federal Republic of Germany,

<sup>&</sup>lt;sup>1</sup> J. R. Bellerby: Agriculture and Industry Relative Income (London, Macmillan, 1956).

section 4 of which requires the Government's annual report on agriculture to state to what extent earnings of both family and hired agricultural workers have measured up to those of "comparable wage and occupational groups", although no precise definition is given of these groups.<sup>1</sup>

The selection of comparable groups is clearly of the first importance and vitally affects the evaluation of any disparity between their wages; failing this, no realistic conclusions can be drawn.

Thus the selection of groups, and hence the validity of the comparison, depends on certain general conditions, namely—

- (1) the groups must have clear limits;
- (2) they must be reasonably homogeneous in character and any internal variations according to qualifications or training must be clearly distinguishable; and
  - (3) the criteria for comparison must be accurately definable.

There are two main alternative methods which may be followed in comparing the conditions of agricultural and industrial workers—by job evaluation, or according to the notion of equality of career and income opportunity.

In line with the principle that equal pay may be demanded for equal work, job evaluation would be a possible standard on which to base investigation. The difficulty would then arise, however, of assessing the physical effort involved in a job, its psychological demands, the training required and other complex factors. Even if it were possible to establish a reasonably accurate scale of evaluation, a further problem would remain, namely that such criteria do not necessarily stand in any clear relationship to productivity in the sense of the creation of economic wealth. Work involving similar physical and mental effort is not always equally valued economically or socially. Surplus manpower, disharmony between the productive factors of land, labour and capital, insufficient rationalisation, overproduction—any of these can result in disparity of earnings although the work involved may require the same effort both in quality and in quantity. This is something that can only be altered by changing the basic structure. Without going into the age-old question of whether or not agricultural labour is underrated it may be said that structural deficiencies must be borne in mind in analysing any comparative income study.

Comparison between the situation of industrial workers and of workers in any other branch of activity is further complicated where industrial production methods and the attitudes typical of an

<sup>&</sup>lt;sup>1</sup> See "Agricultural Policy in the Federal Republic of Germany", in *International Labour Review*, Vol. LXXVII, No. 2, Feb. 1958, p. 160.

industrial society have not yet become generalised. Above all, for comparison to be significant there must be at least a minimum of occupational mobility, or in other words the possibility for a worker to transfer from one branch of the economy to another must not be totally excluded. The less advanced a society or a country, the less realistic it is to study agriculture and industry with a view to equalising conditions in the two sectors; for it would be meaningless to compare the income of a seasonal agricultural worker with no opportunity of going into industry with that of a steelworker, and to use the results to back up a claim for assimilation.

The second possible method of comparison—that based on the notion of equal career and income opportunity—assumes that it is normal human behaviour both for individuals and for groups, whether at the level of the family, the economic sector or the occupation, to wish to maintain their relative position in the social pyramid. Once a certain degree of basic security is ensured, contentment with one's situation in life depends less on absolute values than on one's relative income compared with that of others around one. Comparison between incomes in agriculture and industry gain in point where industrial development is more general, with more immediate contact between the two groups and greater mobility. Where the industrial population in rural districts is high, as it is in the Federal Republic of Germany, and the industrialisation of the countryside is steadily advancing, the agricultural worker will himself be led to compare his situation with that of his neighbours in other occupations. The vital point is that in a highly industrialised contemporary economy an agricultural worker can in theory take a non-agricultural job without in most cases even having to move his home.

Although there is no theoretical objection to comparing the general level of earnings in agriculture and industry, it has frequently been observed that an agricultural workers' subjective comparison of incomes is not based on the wages of, say, miners or textile workers in general. He takes the concrete example of the neighbours he sees every day. Even if he does not actually change his job, the opportunity for continual comparison is a permanent irritant which cannot but affect his conception of an attainable income.

The general conclusion is that the choice of an appropriate reference group must take account of the degree of social and economic development. In other words, for a valid comparison between industry and agriculture, the make-up of the industrial reference group must vary according to circumstances.

It is only natural for people to overestimate rather than underestimate the income of others. By means of methodical investiga-

tion, this subjective view can be reduced to its proper proportions. Irrespective of any political conclusions which may subsequently be drawn, the basis for impartial analysis is established.

#### A PILOT SURVEY

The example chosen to illustrate the method of comparison is an actual survey carried out in the Federal Republic of Germany, in which the economic and social position of employees in mixed agricultural and industrial communities was examined. The aim was not actually to compare respective incomes of agricultural and industrial wage earners but to determine a basic "comparable wage" for all persons engaged in agriculture, as provided for in the Agricultural Act. For the purposes of this article, however, it is more important to consider the method followed and the obstacles encountered than to assess the results obtained, and the broad lines of the survey may be taken as a model for a comparison between wage earners only.

Economic and social development has largely broken down the relative isolation of agriculture as a whole. In Germany and elsewhere the mass of agricultural workers live in close contact with industrial workers. After what has already been said regarding the relative character of any comparison of income, it is not to be wondered at if the desires and interests of agricultural workers are largely determined by the social and economic situation of their close neighbours, whose status is in principle attainable to them also. An immediate comparison of this sort counts for much more than do absolute income levels in deciding whether a person will be satisfied with his situation or not. The most suitable method seems therefore to consist of taking a random sample of industrial workers whose living, rather than working, conditions are comparable to those of agricultural workers. This we may call the "community method".

## Selection of Survey Areas

Since most agricultural workers do, in fact, live in rural districts, the most obvious group for comparison consists of the non-agricultural workers also living in rural districts, whether they work locally or commute. These workers have certain characteristic features which in some ways bring their situation into line with that of agricultural workers. And although admittedly an industrial worker in a rural district will probably enjoy a lower cost of living than his counterpart in a town, he is also subject to certain particular disadvantages such as having to travel to and from work.

Now the concept of a rural district is not an entirely clearcut one. The German Statistical Office refers to districts having up to 2,000 inhabitants as rural districts in the narrower sense and to those with up to 5,000 as rural districts in the wider sense, but the definitions of "rural" and "urban" districts must necessarily vary considerably from one country to another. Neither is the proportion of agricultural to non-agricultural population in a given rural district related in any clear way to the size of the district. The "community method" requires those districts to be studied in which there can actually be a comparison between agricultural and industrial earnings, which means that only districts in which there is a particular percentage relationship should be taken into consideration. Purely agricultural and purely industrial districts are automatically excluded, and strictly speaking the percentage relationship between agricultural and industrial workers should be laid down in advance.

For the German survey 360 districts were selected at random from among the total of over 10,000 in which the proportion of agricultural to total population lies between 30 and 70 per cent. and the proportion of wage earners to total working population lies between 30 and 70 per cent. also.

This method is open to certain objections when it is used for comparing incomes in agriculture and industry. For instance, some of the larger farms, i.e. precisely those that employ wage earners, may lie in close proximity to towns or near industrial conurbations. Such districts are excluded on the percentage condition, and the community principle is not upheld. There is no industrial opposite number for the agricultural workers living in these districts, and with the possibility of a higher average wage for industrial workers living in towns the comparable wage might be too low. This difficulty may be overcome, however, provided the necessary statistical information is available. The first thing is to establish the distribution of agricultural workers according to size of district. The percentage distribution of the sample of industrial workers must then correspond to this proportion. In other words, if, say, 3 per cent. of agricultural workers live in the vicinity of major urban districts, then the sample of industrial workers must also include 3 per cent. living in such districts. This process is shortly to be tried out in a new survey in the Federal Republic of Germany.

# Extent of Coverage and Selection of Addresses

Coverage depends on the size of the area under consideration and the desired degree of accuracy. To put it broadly, the more subcategories there are to be analysed—according to such stan-

dards as region and qualifications—the greater the coverage has to be. Before analysis of data can be discussed, however, two further phases of the selection process must be dealt with. The first consists of random selection of the districts to be considered. The second involves the decision how many persons are to be interviewed in each district, and who, according to the national distribution of the occupational groups concerned. Finding out addresses will depend on the documentation available, but as a rule a register of employed persons at the local level is essential. The German survey used the wage-tax card index, as kept by every district council. Every person registered as a gainfully occupied employee in a given district is issued with a wage-tax card. A record is kept of all cards issued, which thus constitutes a complete register of employed persons. The addresses of persons to be questioned can be selected from such a register, again purely at random. This twostage system briefly outlined here provides the representative coverage demanded. The resulting selection reflects the actual distribution of employees in the districts under consideration, as demonstrated by the following two tables relating to the German survey.

TABLE I. DISTRIBUTION OF EMPLOYED PERSONS IN THE DISTRICTS CONSIDERED, BETWEEN AGRICULTURE AND OTHER OCCUPATIONS

(As a percentage of all employed persons)

Sector	Schleswig- Holstein	Lower Saxony	N. Rhine- Westphalia	Hesse	Rhineland Palatinate	Baden Württem- berg	Bavaria	Federal Republic
Agriculture	28.0	15.0	7.7	7.0	3.8	2.0	8.4	8.9
Other occupations.	72.0	85.0	92.3	93.0	96.2	98.0	91.6	91.1
Total .	100	100	100	100	100	100	100	100

Source: H. KÖTTER, K. DAHM and B. VAN DEENEN: "Die wirtschaftliche und soziale Lage von Arbeitnehmern in agrarisch-industriellen Mischgemeinden der Bundesrepublik 1957", in Berichte über Landwirtschaft, Vol. 1 (Hamburg, 1958).

Table I illustrates the regional differences in the structure of West German agriculture. In the northern Länder the proportion of agricultural workers is far above the average, since there is a greater number of farms employing wage earners.

Table II gives a clearer insight into methods. It shows that non-agricultural employees resident in rural districts are occupied in practically all branches of the economy, although according to a pattern that varies quite considerably from one Land to another.

TABLE II. DISTRIBUTION OF NON-AGRICULTURAL EMPLOYEES IN THE DISTRICTS CONSIDERED, BY OCCUPATIONAL GROUPS

(As a percentage of all non-agricultural employees)

0	Schleswig- Lowe		r N. Rhine-	Hesse	Rhineland	Baden Württem-	Bavaria	Federal Republic		
Occupation	Holstein Saxon	Saxony	ony Westphalia	nesse	Palatinate	berg	Davaria	Both sexes	Men	Women
Gardening, forestry, hunting, fishing	3.7	3.3	1.9	6.3	0.7	2.4	4.7	3.6	3.7	2.6
Mining, quarrying, power generation	3.7	12.6	2.9	9.8	10.0	4.6	5.4	6.8	8.1	2.7
Iron and steel extraction and manufacture	12.9	16.3	12.7	18.3	22.2	30.8	17.3	19.4	21.5	13.1
Other manufacturing	20.4	16.1	34.8	21.0	21.8	32.0	23.8	25.1	18.4	45.9
Building and construction	24.7	20.5	18.2	23.2	20.8	11.1	24.9	20.1	26.2	1.1
Commerce, finance and insurance	8.6	7.1	8.6	5.5	5.4	4.6	4.9	6.3	4.1	11.8
Private services	6.2	4.3	5.7	5.7	2.2	2.5	3.9	3.8	1.0	13.6
Transport	3.1	5.2	4.8	3.2	4.3	4.4	3.9	4.3	5.5	0.6
Public services	13.6	13.8	9.5	6.2	12.2	6.9	10.8	10.0	10.7	8.1
Casual labour employed in more than one branch	3.1	0.8	0.9	0.8	0.4	0.7	0.4	0.6	0.8	0.5
Total	100	100	100	100	100	100	100	100	100	100
Men	80.9	78.1	71.8	80.0	83.6	66.3	77.5	75.3		_
Women	19.1	21.9	28.2	20.0	16.4	33.7	22.5	24.7	_	_

Source: See table I.

The actual figures need not be examined in detail here, but it is most important for the methods involved to note that the occupational distribution of industrial workers throughout the Federal Republic varies considerably from one district to another. In other words, rural distribution does not correspond to the national mean. Following the rule of equal career and earning opportunity, the average income for rural districts is the correct reference figure. Comparison with all workers or with particular occupational groups (e.g. miners or steelworkers) would give the wrong emphasis.

### Elements of Comparison

The selection of comparable groups has been discussed at such length because it is clearly of vital importance in ensuring a valid argument. On the practical side, it must further be decided what details need to be covered. The essential points are—

- (a) income or wages;
- (b) hours of work;
- (c) sex;
- (d) skill category;
- (e) particular hardships.

It is also useful, though not absolutely essential, to have details of conditions of work and training.

Opinions vary as to the best way of considering and evaluating income. In principle it is possible to compare hourly, weekly or monthly wages or the whole year's income. For technical reasons, however, it is distinctly preferable to take the gross income. The literature known to the present author generally takes the hourly wage, but this is open to several objections, since it is of limited value as an indication of actual income. A high hourly wage does not necessarily mean a high total income; for example, branches of activity with high seasonal unemployment pay high hourly wages. Moreover, there are particular differences between the systems of remuneration in agriculture and industry; in addition to the hourly rates there are daily or monthly rates or special negotiated rates, which are difficult to convert. Further complications arise with the conversion of payment in kind and additional social security contributions paid by the employer.

Gross annual income is thus the most acceptable basis for comparison. This consists normally of the gross cash wage (including the employee's social security contributions) and payment in kind. Wage supplements often take the form of fringe benefits provided by the undertaking, and unemployment and sickness

benefits are also reckoned in the gross annual income, which thus gives a truer picture than the hourly wage.

Table III gives a breakdown of gross annual income as ascertained in the German survey.

TABLE III. BREAKDOWN OF GROSS ANNUAL INCOME OF EMPLOYED PERSONS IN THE DISTRICTS CONSIDERED

(Mean percentage of gross annual income from 1 April 1956 to 31 March 1957)

	М	en	Women			
Element of income	Agriculture	Other occupations	Agriculture	Other occupations		
Wages in cash	75.8	93.7	65.9	91.2		
Wages in kind <sup>1</sup> .	21.1	0.9	26.6	3.9		
Additional social benefits 1	2.3	2.1	2.9	2.5		
Unemployment or sickness benefit	0.8	3.3	4.6	2.4		
Total	100	100	100	100		

Source: See table I.

See explanations in the text.

# Evaluation of Wages in Kind

It will be noted immediately from table III that agricultural workers receive over one-fifth of their earnings in kind, whereas for industrial workers the proportion is of practically no importance. It must therefore be decided how payment in kind should properly be evaluated for the purposes of comparison. In the German survey this was done for both agricultural and other workers in accordance with rules laid down by the Federal Statistical Office for the analysis of the agricultural wage structure. These are too complex to be detailed here, and in any case certain conventional standards have to be adopted. Nevertheless, some general rules can be established. Payment in kind can be in various forms, which the rules must take into account. The main forms are—

- (a) free board and lodging for workers living in the employers' home;
  - (b) supply of produce;
  - (c) care of employees' animals by the farm;
  - (d) allotment of land.

The cost-of-living index for food and housing relating to an average consumer group may serve for evaluation of board and lodging, with part board calculated accordingly. Where lodging only is provided, local rents may be applied, in relation to the size and the quality of accommodation.

Produce supplied must be subdivided into items requiring transformation before final consumption (e.g. wheat grain) and those ready for use (e.g. butter). As a general rule the cost of production should apply in the first case and the consumer price in the second. In the German survey the consumer price was calculated at a figure 10 per cent. below the national average retail price. This was on the assumption that retail prices may be expected to lie somewhat below the national average and that produce supplied is not always of top quality. For production prices, the national average is indicated.

Where the farm cares for employees' animals, the proceeds are added to wages (e.g. the wholesale price for pigs or the dairy purchasing price for milk calculated on an average yearly yield per cow). Any payments made by the employee, for instance for the purchase of calves or pigs, are then deducted.

In the case of allotted land, a distinction should be made between land wholly or partly cultivated by the farm and land cultivated by the employee. In the former case the additional wage is calculated as the proceeds per hectare less any expenditure by the employee (e.g. time, seed, fertiliser). In the latter case a rent is fixed in accordance with the local conditions.

The composition of wages paid in kind can vary so widely that very few binding rules can be laid down with regard to evaluation. One other problem should be mentioned, however. In order to obtain a lower tax rating the employed person may be tempted to under-assess his income; this tendency may, however, be counterbalanced by the fact that, since most social security schemes base contributions on wages, a lower assessment will lead to a lower pension later on.

## Other Sources of Income

The additional social benefits shown in table III include—

- (a) prescribed or voluntary payments in addition to statutory sickness and accident insurance contributions, including additional contributions to sick pay, and pension fund payments to which the employee is entitled by law;
- (b) prescribed and voluntary children's benefits, excluding payments made under the Act respecting children's benefits dated 13 November 1954;

- (c) other prescribed and voluntary benefits, such as wives' allowances, household allowances, marriage allowances, if these are not otherwise included in the normal wage;
- (d) prescribed and voluntary bonuses, such as additional month's pay, end-of-year premiums, Christmas box and profitsharing schemes;
- (e) meals (allowances and subsidies, free food and drink, if not otherwise included in the normal wage);
- (f) clothing (occupational clothing, clothing and footwear allowance, laundry and mending allowance, but no protective equipment such as welders' goggles);
- (g) family premiums, such as contributions to wedding presents and for family celebrations, jubilees and funerals, but not collections by union members or payments from union funds;
- (h) miscellaneous payments, such as celebration premiums or presentations on an anniversary of the firm, long-service awards and Labour Day bonuses.

These additional social benefits are lower, in West German industry at any rate, than is generally assumed. The level ranges between 1.3 and 3.3 per cent. of total remuneration, and similar figures, surprisingly enough, apply in agriculture. It is of fundamental significance that a number of employer benefits, some of them traditional, are nowadays to be treated as distinct from wages and regarded as additional social benefits.

Wages are frequently augmented by supplementary agricultural work, but exact evaluation of the additional income is exceedingly difficult. Since surveys are carried out at the level of the individual employee and this supplementary work is most often performed by families, it is practically impossible in most cases to separate one man's share of the earnings. The figure was quite justifiably not included in analysis of the survey since it was found to be approximately the same for both agricultural and industrial workers; should these levels differ, however, this additional income must also be ascertained.

# Ascertaining Hours of Work

After what has been said against using the hourly wage as a basis for comparison it might seem paradoxical to insist on ascertaining hours of work. Even though there is no need to determine the hourly wage by conversion, and although one man's hour is not the same as another's, it is essential in considering the whole situation to know whether a given income was earned through

"normal" hours of work or with overtime. Contractual hours cannot serve as a proper basis for comparison, for they have seldom been found to tally with hours worked. Moreover, comparison of actual hours provides valuable information on the general social and economic situation over and above that supplied by comparative wage levels.

#### Sex and Skill Categories

The degree of detail required for other elements depends on whether the aim is to make an over-all income comparison or to compare specific groups of agricultural workers with corresponding groups of industrial workers. Obviously, men and women must be considered separately. It is, however, no less important to distinguish between skill categories, and the following divisions were used in the German survey:

Category 1: Skilled workers and craftsmen performing particularly difficult, responsible or complex operations.

Category 2: Trained and semi-skilled workers performing repetitive, less difficult and responsible operations.

Category 3: Workers performing simple or auxiliary tasks requiring no vocational training.

## Particular Hardships

Comparative income studies frequently overlook the fact that industrial workers living in rural districts are often subject to the particular hardship of having to spend time and money in order to get to and from their work. Seventy-one per cent. of the non-agricultural workers questioned in the German survey were daily commuters. The average time spent on travel to and from work each day was 80 minutes, and the cost for those workers who had to meet this expenditure themselves averaged 130 marks a year. The time spent on travelling in one year was equivalent to approximately 13 per cent. of hours worked in the year. This hardship should be taken into consideration when comparison is made.

# Practical Execution of a Survey

Practical methods and subsequent appraisal call for a few words. From previous experience, the only reliable method appears to be that of personal interview. Interviewers with a uniform questionnaire should cover the addresses chosen at random. Clear instructions must be issued regarding skill categories, wages in kind and wage supplements.

Sometimes persons interviewed are themselves not too clear about their income, and particularly the yearly figure. If it is at all possible, information regarding earnings and hours of work should be checked with the employer; this generally makes it possible to determine the gross annual remuneration with reasonable accuracy. With very few exceptions, both employers and employees were readily willing to provide the information required. It is nevertheless advisable first to get in touch with local and regional authorities and occupational organisations. Payments in kind should be evaluated according to standard rules and, if possible, by a centralised office. Naturally, for a survey conducted on such a scale, analysis can only be by punched-card methods, and this must be taken into account when the form of the questionnaire is planned.

#### CONCLUSIONS

Table IV summarises the results of the German survey. As the main emphasis of this paper has been on methods, no interpretation of the actual figures is called for. The aim here has been to show what sort of information can be obtained by means of the methods described.

TABLE IV. AVERAGE GROSS ANNUAL EARNINGS OF EMPLOYED PERSONS IN THE DISTRICTS CONSIDERED, FROM 1 APRIL 1956

TO 31 MARCH 1957

(In marks)

	М	en	Women		
Skill category	Agriculture	Other occupations	Agriculture	Other occupations	
1	4,546	5,169		3,283	
2	3,386	4,558	2,136	2,775	
3	2,762	4,050	1,932	2,624	

Source: See table I.

There are, of course, advantages and disadvantages to any system of comparison between industrial and agricultural wages, but if practical comparison is to be made between groups living close together in the same places the arguments will certainly gain in force if objective figures can be obtained from systematic questioning. Although the method described here is specially fitted to conditions in the Federal Republic of Germany, the basic

features can be applied to other circumstances with only a certain amount of alteration.

Any decision to base political action or demands on the findings of such a survey falls outside the scope of scientific investigation. Nevertheless, the politician's decision can be made much easier when objective material is made available through such studies, which contribute to an exact definition of comparable groups and help to clarify their actual income and living conditions.