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The labour market basin: conceptual and methodological aspects

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| The labour market basin:..... | 2 |
| Conceptual and methodological aspects | 2 |
| 1. An Interpretative Definition of the Labour Market Basin | 2 |
| 2. An Operational Definition of the Labour Basin..... | 5 |
| 3. A Definition of the Labour Basin on the Basis of an Integrated Approach | 7 |
| 4. The Measurement of the Integrated Function-Objective | 8 |
| 4.1. The Opportunities..... | 9 |
| 4.2. Accessibility | 10 |
| 5. The Optimal Dimension of the Labour Basin | 11 |
| 5.1 The Services that Maximise Opportunities | 12 |
| 5.2. The Distance (Travelling Time) that Constitutes the Access Constraint | 13 |
| 5.3. Other Contents to Define the Opportunities..... | 14 |
| 6. The Labour Basin Functional to Labour Managment | 15 |

The labour market basin: Conceptual and methodological aspects

Within the limits of the development of an "active labour policy", in all Western countries, the concept has become widespread of a "labour market basin" (or more simply "labour basin") as a *territorial ambit of reference* for the application of a labour policy in all its aspects (management, information, education, training courses, readaptation, protection, evaluation, forecasting, etc.).

On such a concept, however, there is no uniformity of views. Since it is predictable that it will receive more and more attention in the applications of an active labour policy, it is opportune to widen the discussion to what can be meant and should be meant by *labour basin*. The present contribution has this purpose.

1. An Interpretative Definition of the Labour Market Basin

Let us begin from what may be meant by labour basin, and in particular from the less controversial questions. The actual use of the word "basin" (bassin, gebiet, bacino), with its undoubted hydrographical references, leads to understand that one is referring to a territorial space in which a certain confluence or collecting is realised of the substance concerned, in our case labour. In the concept of basin there seems therefore to be

implicit that of "movement" and interrelation between the various points of the same space that are linked by the movement and flow, in our case, of labour. It results that the affinity of the concept of "basin" with that of "market", ie the territorial *ambit* in which goods flow together to be exchanged, to the greater satisfaction of those who supply them and those who demand them.

The basin or market, understood in this sense, implies that the goods in order to be consumed must be transported from their place of existence or production to their place of consumption. The basin or market are, therefore, that territorial ambit that includes both the place of production (or supply) and the place of consumption (or demand) of the goods supplied. In the case of labour, the place of production-supply of the good is the place of residence of the worker, and the place of consumption-demand is the place where - given the present productive technology - is located the worker's job (field, factory, office, etc.). At the most, if the places of residence coincided with the places of work (in other words if everybody worked at home) - let us suppose because all families (households) were economically self-sufficient, or because their work could only be tele-transmitted - the transport of the labour-good, and the concept of labour basin would not even exist (or it would coincide, like that of the market, with the place of residence of the family, or with the whole world). To the extent to which labour needs to be provided in determined places of production which are not the place of residence - and we know that in modern industrial society this is the case for the great majority of jobs, and is there little probability of the situation changing in the short term - the territory is articulated in a set of points, each of which realise a relationship (or flow): residence-work, with another point, which is more intense than with other points. *The set of the points, between which the most intense relationships are determined, defines the ambit of the labour basin.* In this way, the labour basin constitutes a typically "gravitational" area.

Such a definition of the work basin presupposes as *given* the places of supply (the residences) and the places of demand for labour (the factories, offices etc.). And it is logically indifferent to the choices that on the part of the workers or, on the part of the entrepreneurs (including the state) may be made with regard to location both of the residences and places of work. The labour basin will adapt itself permanently to all the innovations and changes with regard to locational choices both of residences and places of work, and it will permanently change its borders that will ensue only from the identification and selection of the most intense relationships between home and work, at a given instant.

To the extent to which the location choices of labour demand (or of the production installations) depend on the location of residences, we will have continuous transfers of factories towards residences; and, viceversa, to the extent to which residences depend on the location of factories, we will have continuous transfers of residences towards the factories. Economic history is full of cases in which one or the other movement has prevailed: which has permanently modified the confines of the respective labour basins and created to a greater or lesser extent intense relationships between the same, even if necessarily of a transitory nature, in the expectation of achieving a new equilibrium.

However, the reciprocal dependence between the location choices of residence and work place, is not the only factor that modifies the confines of the basins. Such confines tend to widen and narrow in relation to professional mobility or work substitution; ie in relation to the rhythm at which the firms (for reasons of technological change) and the workers (for economic or social preferences) are inclined to change jobs or work force. If the rhythm of substitution is more intense, the number of points, between which the relationship residence-work is realised most intensely, becomes usually wider because of the greater opportunities that are sought or realised. Given the relative rigidity of what is pre-existent (homes and factories)

this tends to widen the commuting field and the times of transport, rather than the transfers. With this the territorial ambit of the basins tends to increase.

2. An Operational Definition of the Labour Basin

At this point one must ask: is this "analytical" and interpretative notion of the labour basin utilisable for operational purposes in the ambit of an active labour market policy?

It has already been said that the above-mentioned definition presupposes as *given* the places of work and residence. In reality, it has been said also, they are in motion, under a reciprocal influence. Perhaps it is best to examine the conditions of such motion with respect to the expectations and objectives of the two decision-makers about the two locations: the entrepreneur and the worker. In principle the functions-objective of both *are not in conflict*: both tend to *maximise the opportunities* offered by the market. For the former, the entrepreneur, the wider the market, the better the chance of finding the qualifications that he needs, without mentioning the advantage in a large market, of avoiding a possible "local" shrinking of the work force with its effect on the "cost" of labour, and of obtaining in general - despite and contrary to the existence of the trade unions - greater competition from the side of supply (albeit together with greater competition from the side of labour demand). For the latter, the worker, likewise, the larger the market, the better the chance of finding preferred work or that which is more promising from the point of view of his or her professional aspirations, and there will be more chance of finding other employment if a job is lost.

For both entrepreneur and worker alike, the maximisation of opportunities has a constraint; the vaster the market (understood as a basin and thus as a relationship, in motion, between the place of residence and the place of work), the greater will be the

sum (and the average) of the distances between place of residence and place of work, and lesser therefore the accessibility to the work place from the residence. Such lesser accessibility - as is known - means greater transport costs, in the unit of time that, for reasons of living, conditions the provision of labour, ie the working day. This greater cost of "daily" transport is expressed in both in economic terms (ie in terms of material resources used for the provision of the transportation service) and in terms of non-economic welfare (in terms of the time wasted by the worker). Accessibility exercises the function of constraint on the functions-objective of both subjects, in proportion to how much each subject supports of the costs themselves, whether economic or not of transport. The subject that supports the greatest costs of transport seems definitely to be the worker, in all senses. This does not mean that the entrepreneur as well may not have to undergo such transport costs, both when he assumes, in part and wholly, the financial burden (the economic burden cannot but have an effect moreover on the real labour cost) and when he undergoes the burdens in terms of lesser productivity and greater absenteeism. On the whole, nevertheless, one can be sure that the cost of transport constitutes a greater constraint to the function-objective of the worker than it does to that of the entrepreneur: and this is demonstrated by the more marked tendency - in parity with other economic conditions - of entrepreneurs to widen the confines of the labour market, with respect to the workers.

In conclusion, it can be claimed that the function-objective both of the entrepreneur and the worker is that of *maximising the opportunities by the labour market and minimising the costs of accessibility*. And that as a consequence the "optimal" labour basin, as territorial ambit of the optimal labour market, will be that whose territorial confines allows to the best degree the realisation of that function-objective.

At this point it would be a question of choosing how to express the opportunities and how to measure them; and, at the

same time, how to express and measure accessibility. It is a question in short of quantifying the function-objective.

Let us suppose that one chooses as indicator or measurer of opportunities (indifferently both for the entrepreneurs and for the workers) *total employment* (possibly bound to a mix); and as indicator or measurer of accessibility, the *time (isochrone) of transportation*. And let us suppose that of each of the indicators the value (or field of values) is chosen which, in trade off, are considered appropriate or preferred. Thus doing, we would have determined also the confines of a labour basin that is utilisable for operational purposes.

3. A Definition of the Labour Basin on the Basis of an Integrated Approach

But such a conclusion would only be partial. Since the definition of the function-objective on which it rests is partial.

In reality, that function-objective concerns the locational choice made by the worker with respect to the place of residence, on the one hand, and by the entrepreneur to the place of work (factory), on the other, just as they influence each other *reciprocally* (see above Para. 1). But such choices undergo the influence of *other factors* that are not their reciprocity, which is expressed in the labour market alone. For which reason *it is not just the relationship "employment opportunities-accessibility" that can determine the optimal labour basin.*

The worker, in his or her choice of residence, bears in mind, on the one hand, to a great extent employment opportunities and the distance from the place of work, but, on the other, also opportunities for housing, education for his or herself and above all for the other members of the family, the vicinity to relations and friends, satisfactory recreational facilities, respect for certain habits, environmental amenity, in short all the factors that may be considered as conducive to social well-being and the "quality of life".

And the entrepreneur, likewise, bears in mind greatly availability of man power in necessary quantities and quality, but he or she is obliged to bear in mind many other factors, such as: the raw materials market, the outlet markets, the transportation and technology to be respected: in sum, all the factors that constitute the entrepreneurial combination of productive factors.

If the set of these factors influence the locational choices of the residence and work places, and if a definition in operational terms of the labour basin derives from the formulation of a (constrained) function-objective that is valid for those locational choices, it would be necessary to incorporate all these *other* factors in the formulation of the function-objective on which can be determined the optimal labour basin. An optimisation founded on a partial function-objective would not only be illusory for the purposes of the determination (or explanation) of the labour basin (as resulting from empirical analysis), but also harmful, in as far as it could become a "pessimization" (or maximisation of the worst) with respect to an integrated function-objective.

4. The Measurement of the Integrated Function-Objective

Anchoring the notion of the labour basin to a definition of *integrated function-objective of social well-being* is without doubt difficult and complex. We think however that the characteristics may be simplified without too much risk or harm.

It is a question of anchoring the operational empirical definition of the labour basin not only to the relationship "employment opportunities/ accessibility to the work place", but also to the more general relationship "*all* the opportunities-accessibility to *all* the work places" and to the relationship "opportunity-accessibility" *tout-court*.

The problem is therefore that of synthesising the expression of each of the two terms (by means of significant indicators-

measurers and values considered preferable) and construct thus concretely an "integrated" function-objective.

4.1. The Opportunities

In an analysis of all the factors that constitute social well-being (and which can be the object of a function of *social* well being), one can observe that they are all determined by means of the availability of *goods and services* and of a certain *environmental quality*. (This latter is evidenced by itself only to the extent to which it is not the result of activities of production of goods and services, but of natural data that are not reproduceable and if anything are only to be conserved, because otherwise it too would be reduced to an availability of goods and services).

The availability of goods and services, spatially understood, is reduced furthermore to those goods and services that cannot be transported in the place of consumption, because in this case a locational indifference is determined with respect to their availability. One is referring thus to those goods and services in which the place of production and place of consumption coincide: ie the natural goods (those that, in another way, contribute to a great extent to "environmental quality") and the *services* properly called of every type. For the purposes of our analysis into the concept of "opportunities" (in the integrated sense) that are available to be maximised, "manufactured" goods (including agricultural products) are excluded that can be accessible in an indifferent way to the location of the places of residence. The opportunities that the citizen wishes to maximise by means of the choice of residence are, therefore, those of *services*, of those activities that are called "tertiary", of all types, that are in fact non-transportable activities for which the place of production and consumption coincide.

The *services* (public or private, divisible or indivisible, marketed or non-marketed, etc.) are therefore the best proxy and

indicator of the "general opportunities" that are part of the function-objective of social well-being (in parity with the capacity of income acquisition).

The *service opportunities thus represent very well the set that characterises the factors of social well-being*, present in an overall function-objective, if the natural opportunities are added to them (that can be "produced" by the services); but since the service opportunities are also those in which the labour factor (with respect to the "primary" and "secondary" activities, ie agriculture and industry) is preponderant in the combination of productive factors - and thus the employment induced by these service activities will become the employment which is more and more important out of total employment - in practice, apart from the fringes of industrial and agricultural employment that can be possibly evaluated separately for themselves - *the service opportunities represent also the most important indicator for employment opportunities*, which are the two terms of reference on the basis of which is determined the optimum locationing of residences (whence the housing demand) and of the work places (in as far as they are the centres of supply of the services).

In such a case "general opportunities" of well-being and "partial opportunities" of employment largely coincide, at least in as much as it is useful that these latter are also indicative of the former (and not viceversa), in the evaluation stage of the choices with regard to residences. As far as *natural goods* are concerned, that influence well-being independently from the service opportunities, it is necessary to evaluate them in themselves and ensure their presence, in the proportions and standards that are considered opportune, at the stage of the identification of the territories that constitute the ambit of the locational choices of the residences.

4.2. Accessibility

For the other term of reference on which is constructed an "integrated" function-objective of social well-being, ie accessibility to all places (and not only those for work) - which is the travelling time as a variable/constraint to be minimised - the identification between the indicator of general accessibility and that of the partial one to the work places, is even more direct and persuasive: it always stays the same travelling time. In fact, even if the access needs are differentiated noticeably according to the type of service required and its "frequency", they have a maximum threshold for all the services to which one has access from residence, *which is that which is acceptable in the space of a day*. The maximum acceptable travelling time for the citizen for access to any service in the day, does not differ from that which is acceptable for access to the work place. The indicator is the same (travelling time); and there is no reason for the standard which one wants to fix on them to differ, both whether it is a case of home-work commuterism, or that of home-school, or home-place of amusement, etc.

5. The Optimal Dimension of the Labour Basin

The conclusion of the preceding reflections is the following:

that the prerequisite of a labour basin is that of ensuring an optimal relationship residence-workplace, in the sense of maximising the work opportunities to the minimum travelling time;

that, nevertheless, the optimal relationship residence-work place must be integrated - in order to be effective - also with an optimal relationship residence-supply centres of the services in general, otherwise the labour basin will not function;

that, luckily, the relationship residence-service centres may avail itself of the same indicators and measurers of the relationship residences-places of work (approximately), and therefore the empirically determinable optimal ambit for a relation *is valid* also for the other one.

Proceeding now to a further approximation to the contents of an optimal relationship "opportunity-accessibility" (that determines how we have deduced also the optimal labour basin), it is a question of how to define what *types of services* maximise the opportunities and what *distance or travelling time* constitute the access constraint.

5.1 The Services that Maximise Opportunities

The services that maximise opportunities are the more "rare" urban services, i.e. those that - whilst not being able to be used apart from in the space of a day - have a rarer frequency of use for the user.

Naturally the average frequency of use of such services depends on the average income of the users. But whatever their frequency of use, the services have to exist in order to constitute an opportunity of use. As is known every service needs, for its provision, to reach its own dimensional threshold. A theatre, a newspaper, a university, a specialist clinic, etc. need a certain critical user mass to exist as a unit. The overall usage, in turn, is a proportion of the total population, and such a population varies in respect of the *frequency of use*. In order to exist, albeit with a very low frequency level, a concert hall will need a minimum population threshold to serve. If the rate of frequency were to increase, obviously the minimum population threshold would diminish. At a given rate of frequency, every service will have its minimum population threshold; *it is the services whose minimum population threshold is higher which constitute, together the condition of maximum opportunity.*

This reasoning was at the basis of an empirical evaluation that was carried out some years ago in Italy in an official project of the national territory (known as "Progetto 80"). Wishing to divide the national territory into territorial ambits in each of which the presence of all the "rarer" urban services might be

realised, and given the average hypothesisable frequency on the basis of certain standards, for these services, Progetto 80 claimed that a territorial ambit which would serve that purpose (it was called the "metropolitan system", "superior urban system" or "territorial system") could not have less than a million inhabitants. But it is clear that if the frequency of use then hypothesised, was to be considered not very high, for example, in respect of the evolution of the average income per inhabitant, then the thus fixed threshold should be consequently lowered (given the technical parameter of users per utilised installation; if then the technical conditions change as well, the population threshold may change for reasons that are different from the frequency of use).

In this sense, therefore the population threshold may be an indicator of the maximum of services that can be instituted, that is to say the maximum of opportunities to offer to the citizens.

5.2. The Distance (Travelling Time) that Constitutes the Access Constraint

It is necessary that the *objective of maximum services* to be instituted in a given territory in order to have a "city-effect", represented by a minimum population threshold, *is compatible with the standard value assigned to accessibility*, expressed by the distance or travelling time for access to those services.

Utilising still the example of Progetto 80, this decided to fix a standard of accessibility to superior services (that could be assumed also as a standard of access to all work places) in a maximum travelling time (isochrone) of 60-90 minutes.

Such an isochrone has a relationship with the kilometric distance, a relationship that is determined by the technical parameter of the available systems of transportation. The territorial surface interested by this ambit is that which should contain the minimum population threshold, in order that the opportunities of supplied services are at a maximum.

If this minimum threshold is distributed over a surface that is superior to that given by the above-mentioned access standard, it is necessary:

or to diminish the service opportunities (reducing the population threshold);

or to increase the average acceptable travelling times (and the consequent costs of transportation).

If the minimum population threshold can be placed in a surface that is inferior to that given by the access standard, then the access standards can be simply increased, i.e. the average planned travelling times diminished.

5.3. Other Contents to Define the Opportunities

Those opportunities to be maximised in the relationship opportunity-accessibility (which determine - we repeat - the metropolitan system and also the optimum labour basin), may be expressed in terms of urban services and their qualification; but as requisities they include also that of a certain *environmental quality*, and those requisites, that are particularly important for the identification of a suitable labour basin, of a *polyvalency of work opportunities* for the work force.

This last requisite is largely satisfied, as said, by the sought maximisation of service opportunities (to the extent to which the presence of *all* the services, ensures also the presence of *almost all* the work opportunities). On the outside remain the opportunities for agricultural and industrial work. And yet, such opportunities will have to be verified for their presence in the planned territorial ambit, case by case, by means of a policy of installation redistribution and of investment in the territory, which will have to respond both to criteria of maximum efficiency for each activity category; and to an equal distribution of the new installations with regard to the labour supply to be satisfied and to the need to ensure an acceptable mix in each territorial ambit thus conceived.

The relevant aspect to be emphasised at this point, is that, among the requisites for a labour basin, there is that of satisfying the need for the maximum of diversified work opportunities, and that is allowed by the complexity of the activities that are realised at a high population level. The same "management" of the labour basin is rendered more efficient if the basin itself presents those requisites and thus those dimensions.

The other one among the requisites indicated, that of *environmental quality* (not produced by service activities), will be ensured if in the concrete analysis of natural environmental resources, there is assigned with discretion to each metropolitan system (or also labour basin, in the identity that we have argued) a quantity of natural goods (areas for free time, forests, parks, etc.) that is sufficient to satisfy - on the basis of predetermined standards - the needs of the given population.

6. The Labour Basin Functional to Labour Management

We have thus arrived, in our opinion, at an operational conception of the labour market basin: that which is identified in a territorial ambit in which can be evaluated and measured an integrated function-objective of social well-being. In this sense, the labour basin is identified in an integrated basin of urban and social services and in a traffic basin as well. It results, likewise, by deduction, the invalidity of any other territorial ambit gathered from the partial optimisation of residence-work place relationships, or worse still, by the mere registration of pre-existent residence-work place gravitations.

It is a matter now of taking rapidly into consideration the functionality of a labour basin conceived in such a way with respect to an "active" policy or management of the labour market.

We have already mentioned how the foundation of such a policy or management of the labour market is the possibility of

ensuring a more effective functioning of the labour market. That which means ensuring (like any functioning market should) the best *encounter* between the demand and supply of labour: whence to avoid in some cases a surplus of unsatisfied supply in the presence of a demand that is likewise unsatisfied. Well, if, as said this can happen when the most numerous labour opportunities are supplied with the constraint of a standard of accessibility, it is evident that only by identifying the "right" level or territorial ambit, in which surplus or deficit can be measured, will one be able to maximise the capacity of *encounter* between demand and supply and minimise the cases of missed encounters.

Certainly the identification of the *appropriate territorial ambit* in which to evaluate the encounter between demand and supply of labour is not *per se* the only operation necessary; it is the premise to the application of policies of "adaptation" and of assistance to placing (information, professional training etc.) without which an active labour market policy does not exist. Nevertheless a condition for its efficient operation is that which is placed or applied to a correct territorial ambit. Below the threshold of activities and opportunity ensured by the correct territorial ambit, that policy - whatever the quantitative result reached - does not maximise the opportunities offered to the labour market operators (workers and companies), and the encounter between demand and supply is not realised in optimal conditions.