CHAPTER V

WAGES AND POPULATION

§ 1

The Proximate Determination of Wages

The larger part of the incomes of the majority of persons, though not of those whose incomes are the greatest, are incomes from labor. Some incomes from labor, usually those received for the work requiring least of physical exertion, we call salaries. Other incomes, really the direct result of labor, we call proprietors' or enterprisers' profits. The part of a proprietor's income which is derived from capital investment is then assumed to be excluded from consideration. It is assumed that a portion of his total income is due to or attributable to his possession of capital and another portion to his mental and physical efforts. He may, also, receive accidental gains and suffer accidental losses, accidental in the sense that some proprietors gain and others lose when, so far as intelligent observers can see, managerial ability and application is not correspondingly unequal. For our purposes, all of the returns properly attributable to labor or effort may be lumped together as wages.

What we seek is a knowledge of the forces that fix wages in any special line of work and with that, as a by-product of our narrower study, a knowledge of what fixes wages in general. We shall find the law of wages to be analogous to the law of interest, and the approach to an understanding of the law to be through similar avenues.

Wages, like interest, are fixed by demand and supply, and whatever more ultimate forces act upon them act through demand and supply. If, at wages of $2 a day in any line, more men are wanted in that line than are to be had, the resultant bidding tends to raise the wages until the demand is no longer in excess of the supply. On the other hand, if, at wages of $3 a day, the supply of labor of the sort in question is in excess of the demand, then the seeking of employment by would-be wage earners in that sort of labor must tend to lower wages to a point where supply no longer exceeds demand.[1]

[1] Some interest attaches to the question of whence comes the ultimate demand for labor. It is unquestionably true that, considering economic society as made up of groups producing for each other under modern division of labor, the demand for any special kind of labor traces back of the employer to the purchasers of the goods made, or in other words, to wage earners, etc., in other lines who desire this special kind of goods and who, indirectly, are trading for them goods which their labor or their line of industry produces. In this view the labor of some constitutes a demand for the labor of others, just as the supply of some goods is said to constitute a demand for other goods. But while no one can demand goods without, in effect, offering other goods in exchange for them, it is certainly possible to demand labor, in the sense of being a buyer of labor, while yet not offering labor in return. Any capitalist or landowner can turn the trick. His purchases represent a demand for labor but not a supply, a demand for one kind of labor which does not emanate from a supply of another kind.

There are, indeed, advantages from the point of view of a discussion of general wages, in thinking of all labor as offering its services to owners of property and owners of property as buying these services. With a division of society into the two classes of property owners and laborers, with free contract, but with no markets and

Let us devote brief attention to some line of industry and attempt, for that industry, to see what wage-determining factors lie immediately back of demand and supply. For purposes of illustration, we shall examine the wage-determining influences in a hypothetical, small community, the only industry of which is the raising of wheat. In this community are five farms of various degrees of fertility and having various equipment. We shall suppose the size of farms and the equipment of each farm to be, for our present problem, a fixed fact. There is in the community a definite number of laborers of equal efficiency. On either one of two of the farms, which we shall call, respectively, A and B, 3 men can produce 1500

no exchanges of goods, the property owners would find it advantageous to employ the laborers, agreeing to give the latter a part of the total product of industry and keeping a part for themselves. It is the relation of the propertied classes to wage earners which we have or should have in mind when we speak of wages in general as rising or falling in relation to other distributive shares and when we speak of changes in the general demand for labor. It was the relation of wage earners to capitalists which Mill had in mind when he stated that demand for labor comes not from the purchasers of goods but from the capital employed in hiring labor, and that the purchasers of goods simply determine in what line or lines labor shall be employed. (See Mill, *Political Economy,* Book I, Chapter V, § 9). Were there no market for goods, the capitalist employer, instead of hiring men to produce goods for sale and using the proceeds to buy other goods for himself, while his employees likewise used the wages which constituted their share of the product to buy other goods, would simply hire the labor to produce directly such goods as he and they wanted and pay them a share of the product. Presumably wages would not be so high, under this arrangement, as under the modern system of specialization of capitals and complex division of labor, since specialization makes for greater efficiency of production.

bushels,[2] 4 men can produce 1900 bushels, 5 men can produce 2200 bushels, 6 men can produce 2450 bushels, 7 men can produce 2650 bushels. On each of the other three farms, 3 men can produce 1200 bushels, 4 men can produce 1500 bushels, 5 men can produce 1750 bushels, 6 men can produce 1950 bushels, 7 men can produce 2100 bushels.

The reader will notice that the product per man is less as the number of men working on a given area is greater. We have put into the numerical terms of our illustration the fact, with which every business man and every farmer is familiar, that after a certain degree of utilization is reached a larger force working with a given equipment and in a given space or on a given area, though its total production may be greater and though, with wages sufficiently low, its employment may be worth while, will not secure a product as large per man employed as the smaller force. It is to be emphasized that the above-stated law of production applies as certainly to work in a factory or an office building as on a farm. It is true that a given land area can be very intensively used in manufacturing, in mercantile business or in professional work, by building story upon story. Nevertheless, diminishing returns are realized in proportion to the labor involved, because of the progressively stronger foundations necessary with increasing height, because of the increased elevator expenses, and perhaps other disadvantages.

[2] It need not be supposed that these two farms are of equal fertility. One may have greater fertility and the other more or better equipment.

Before attempting to go farther in explaining how wages would be determined in our assumed community, it will be worth while to call attention to the way in which an individual employer[3] adjusts his business to wages. Each employer determines, in the light of current wages and in the light of the probable advantage to him of the services to be rendered, how many men he will hire. In order to give greater exactness to the statement we may say that each employer hires men up to the point where the last man hired is expected to be worth no more, in this employer's business, than the wages which the man must be paid.[4] The individual employer, except in the

[3] Who may be a capitalist, a landowner, an enterpriser using chiefly borrowed funds, or himself a hired servant of owners of property.

[4] If wages must be paid before the product is sold then, obviously, an employee the product of whose labor is not worth, when sold, his wages plus the interest his employer has to pay (or forego from some alternative investment to pay him), is not worth hiring. Hence, a potential employee's service may be of much less value to an employer whose credit is not good and who must pay high interest on borrowed funds, than to an employer in a more favorable financial condition. To the general theory of employer's demand for labor, as presented in the text, some one may object that an exceptionally capable employer could gain more from the labor, as also from the land and the capital, used by him than could an employer less capable, and that, therefore, the essential problem relates *merely* to the proportioning of factors and not to the marginal productivity of any one or of each of the factors. But if such an exceptionally efficient employer could add more to the annual product of his business, by hiring more men, than the wages to be paid, *and did not do it* (and the same principle would apply to his borrowing of capital or renting land), he would not be making the most effective use of his directing ability; he would not be choosing the best proportion of other factors to the amount and quality of a

cases where he has substantially a monopoly, has no appreciable influence over the price of the product he sells. Nor has he, so far as the wage earners are familiar with market conditions and reasonably able to take advantage of them, much control over the wages he has to pay. Even the monopolist, as to product, has competitors in the wages market against whom he must bid in seeking labor. In general, the individual employer can react to wages only by adjusting his demand for labor to the wages he must pay.

Consider, now, the demand for labor, of one of the farm owners in our hypothetical community. Assuming wheat to be $1 a bushel[5] and wages to be $300 a year,[6] the owner of farm A could profitably use four men and could use five without loss. His demand, with wages at this level, would be for four or five men. With wages less than $300 he would want five men. With wages more than $300 he could afford only four men.[7] With wages at just $300, he would be indifferent whether to hire four men or five.[8] With four men hired, the

particular kind of labor used in his business, viz., labor of management. (See Carver, *The Distribution of Wealth,* New York—Macmillan—, 1904, pp. 90-94).

[5] Net to the farm owner.

[6] Payable, we may now assume, when the product is sold. If the wage is payable earlier, a somewhat lower wage would be necessary to bring out the same demand for labor.

[7] In practice there are intermediate possibilities, such as hiring a fifth man for part time. As the principle of the solution given in the text is not changed by this fact, it will be better not to complicate our illustration with it.

[8] Someone may object that the extra bother of dealing with and directing the fifth man will prove conclusive against his employ-

total product of his farm would be 1900 bushels or $1900 of value and his wage bill $1200, leaving him $700 as interest on equipment and rent on land. With five men employed, the total product of his farm would be 2200 bushels or $2200 and his wage bill $1500, leaving, again, $700 of interest on equipment and rent on land. Since the fifth man receives if hired, as wages, just what his services add to the product that would be secured without him, the employer's net profits are equally great whether this man is hired or not. It must not be understood that the fifth or last man hired is of less ability or efficiency than the rest. It is not that the other men produce more and he less. What the illustration means is merely that, taking all five men to be of equal capacity and energy, the difference between having five men and having four to work on the given farm is less than the difference between having four and having three. This fact is but an exemplification of the law of diminishing returns.

Let us now suppose wages to be, not $300, but $400 per man. In that case the employer on farm A could afford to hire but four men (he might hire only three), making his product $1900,

ment. But by our hypothesis the fifth man makes the total product $300 larger than it would be with all the other labor necessary *except his*. The $300 is, in short, a *net* addition. For simplicity, we shall suppose the labor of management, if any is required, to be of equal productivity and to receive equal renumeration with the other labor involved. If, moreover, the farm owner works on his farm, he counts one among the number he can use in its cultivation, i. e., he is one of the four men or one of the five men employed, and himself receives one man's wages besides interest and rent.

his wage bill $1600 and his interest and rent return $300. It should be clear from this illustration that the individual employer's demand for men to work on a given area and with the aid of a given investment in equipment, is greater or less according as wages are less or greater.

Obviously, the ethical justification of the work for which labor is hired has nothing to do with the economic law under discussion, so long as men are found who will engage in any special business for profit and other men can be found to work for them for pay. Thus, a manufacturers' association seeking tariff favors at the expense of the public, would be likely to employ a larger body of lobbyists, and to hire more editors and popular writers for the purpose of influencing public opinion and getting what they desired, if these services could be secured for lower pay than if they must be got by the offer of higher pay. In such work it may be difficult to tell at what point additional workers are just worth the wages paid and beyond what point further employment of skill is not worth while. Yet it is not to be doubted that the principle involved is the same.[9] So, also, the manufacturer of a noxious drug no less than the manufacturer of a breakfast food, will hire men to work in a given factory, up to the point where

[9] The analogy with the previous illustration is closest when we suppose that additional writers or lobbyists would make less and less difference with the schedules. But if the choice were between getting the desired tariff favors *or none at all* and if only a trifle more influence was thought necessary to get these favors, then the desire for such additional influence might be very great whereas further influence beyond this might have no utility whatever.

further labor, in that factory, is worth no more than the wages which must be paid.

We are now ready to take up the direct explanation of how wages are determined in our hypothetical community. We shall suppose the number of men available for employment on the five farms to be twenty-one. We shall arrive at the rate of wages in the community by assuming various rates and seeing how each would affect demand and supply of labor. Suppose, first, that wages are $400 a year per man. Then not more than four men apiece can be employed on farms A and B since a fifth man increases the product by only $300. Nor can more than three men be employed without loss on any of the other three farms. Hence, at wages of $400 per man, not more than seventeen men could get employment. At wages of $400 per man, the supply of labor is very decidedly in excess of demand. Rather than remain idle, most or all of these men would work for less than $400. The competitive situation practically compels lower wages than this.

On the other hand, wages of $250 also fail to satisfy the condition of equilibrium. Wages so low as this would make it possible for the owners of A and of B to employ, each, five or six men, while C, D and E farms could use four or five apiece. There would be very considerable advantage in the employment of not less than five by A and by B and not less than four each by C, D and E. Hence, there would be active bidding[10] for

[10] In the absence of collusion, which would exists the less the larger was the community and the greater the number of employers.

twenty-two men and a willingness to hire, perhaps, twenty-seven. But, according to our assumptions, only twenty-one men are available. Therefore the demand for labor exceeds the supply and the bidding of employers must go on up to wages above which there is no further advantage to any employer in seeking to get labor away from others. It will readily be seen that wages of about $300 per man fulfill this condition. At wages of $300 or not much less, it would be possible, indeed, to get twenty-two men employed, five each on A and B and four each on C, D and E. But this does not mean that at $300 demand exceeds supply by one, for none of the five employers would bid over $300 to get any of these men away from any other. Thus, with wages at about $300, five men might be employed on farm A, five on B, four on C, four on D and three on E. This would mean that all twenty-one men were employed, yet the owner of farm E would not offer any higher wages in order to employ a fourth man but would be indifferent in the matter. Hence demand would not be in excess of supply.[11] And the wages which equalize demand for and supply of labor, which clear the market, are wages measured by labor's marginal contribution when all are employed. No one of the wage earners will receive more than his labor adds to the product which would be secured without his participation in the productive process. Of course it follows that in case the workers are

[11] In practice there would be the possibility of four men dividing their time among five farms. The mathematical economist will know how to develop refinements of this sort.

of unequal efficiency, instead of being, as above assumed, of equal efficiency, their wages will be unequal, each being paid according to his output.

Wages being thus determined, the remaining product on each farm, aside from the amount necessary to maintain fertility and equipment in its original condition, goes to interest on capital and rent on land. Let us suppose that the 2200 bushels or $2200 produced on farm A is net product, i. e., is all in excess of necessary repair and depreciation charges. Then, since the wages of five men at $300 each, aggregate $1500, there is left $700 as interest and rent. We have already, in a previous chapter,[12] seen how interest is determined. If we suppose return on accumulated capital to be at the rate of 8 per cent and the investment in improvements and equipment on farm A to be $5,000, then $400 of the product can be attributed to invested capital, leaving $300 as rent of the unimproved land. Capitalizing this rent on an 8 per cent. basis, we arrive at a value for the land exclusive of improvements, of $3,750.

Each wage earner gets, as wages, in a fair competitive market, what his labor adds to the product that would have been secured without him. And each accumulator of capital gets, as interest on that capital, what his accumulation thus adds to the product that would have been secured without the aid of his capital. But if, through the spread of habits of saving, the volume of capital increases while the number of wage earners does not, each wage earner's efforts will

[12] Chapter IV.

add more than previously to the product that would have been secured without those efforts and hence wages will be higher,[13] while, on the other hand, the marginal product of capital will be reduced and hence the rate of interest will be lower. It is desirable, therefore, *even in the interest of those who themselves save no capital,* that capital should be saved.

It should be added that proprietors' profits, the reward of self-employed managerial effort, are subject to the same law as other wages, i. e. they depend on the value productivity of the work done. If managerial ability of the highest order is scarce, its marginal product is large and profits will be large. If it is plentiful, its marginal product is less and competition must tend to lower profits. Managerial ability is sometimes, however, devoted to achieving success by price discrimination, by spreading false and malicious reports regarding rival goods, by making arrangements with railroads (rate discrimination) or with tradesmen which operate to exclude competitors' goods from the market, or by conspiring with competitors to form a monopoly and raise prices. Clearly, profits thus secured are related to the value of the services given to the public, only in the sense that the services given have a high value because the exclusion of competition forces the public to pay

[13] Though the case is perhaps theoretically conceivable in which the increased capital would take such forms as to increase greatly the demand for land and increase rents but not wages. However, should the conclusions of the next chapter be accepted and applied, increase of capital would even in this extreme case be advantageous to wage earners.

high prices for them. The profits realized are gained *by doing the public an injury*[14] and the methods followed should be effectively prohibited. There is no intention, of course, to deny the possibility that employees as well as employers may receive remuneration for, or remuneration which is enhanced by, anti-social activities.

§ 2

Influence of Physical and Influence of Value Productivity on Wages

Enough has been said to make it clear that wages in *any given line* are measured by the marginal *value productivity* of labor in that line. Though the marginal physical productivity of labor remained at 300 bushels per year in agriculture, agricultural wages would nevertheless fall if the price of wheat per bushel and the purchasing power of wheat over other goods should fall. If, therefore, an increased per cent of the productive labor of the world should go into the raising of wheat, we should expect the remuneration of labor so engaged to fall, even though available land for the purpose was so unlimited and so equal in goodness that the number of *bushels* produced per man occupied in wheat raising remained the same.

If, in a country which is fairly well populated and which has reached, therefore, as to its agriculture, the point of diminishing returns, an increased number of persons in agriculture must

[14] Cf. the author's *Principles of Commerce*, New York (Macmillan) 1916, Part III, Chapter VII, § 4.

bring a diminished proportionate physical product, this may not be equally true of all or, possibly, of any lines of manufacturing. England, for example, which, presumably, long since reached and passed the point of diminishing returns in all kinds of agriculture may still, with regard to much of its manufacturing, be in such a situation that more labor devoted to such manufacturing would yield a physical return in direct proportion or in nearly direct proportion to the increased labor so applied. Nevertheless, a sufficient increase in the number of persons engaged in these various lines of manufacturing might so decrease the marginal *value* product of their labor as to necessitate low wages. The increased supply of the goods thus produced would tend to lower the prices of these goods and hence to lower the returns which those engaged in producing the goods could hope to receive. We may conclude, therefore, that the reduction of *per capita* returns with increase of population in agriculture, tends towards lower wages even in manufacturing since, if it did not, an influx of persons into manufacturing would occur, lowering relatively the prices of manufactured goods and raising, relatively, the prices of agricultural products.

We must not conclude, however, that the returns to labor are necessarily as low (or as high) in a manufacturing as in an agricultural country. Labor does not flow freely from one country to another. Furthermore, the people of the manufacturing country may be highly efficient and they may be few in proportion to the demand for the goods they produce; while relative incapacity or lack of resources for manufacturing may keep the people of the agricultural country from providing themselves or third and fourth countries with manufactured goods.

§ 3

Comparative Wages in Different Labor Groups

Something should be said regarding the relation of wages in one labor stratum to wages in another, e. g., the wages of skilled as compared with the wages of unskilled labor. It will, of course, be true that both the skilled and the unskilled workmen's wages will be fixed by the respective marginal value products of their labor. But the value of the goods produced by the skilled labor is relatively high just because such labor is relatively scarce. The higher wages of skilled labor or of intellectual labor requiring considerable training are really due, then, to the relatively limited amount of such labor available.

The chief reason for the comparatively large amount of unskilled and the comparatively limited amount of skilled or highly trained labor (in relation to the demand for it) is the cost of training.[15] Unless the larger wages to be secured by training make up, in the average life time, the cost of this training plus interest, entrance into the skilled work will seem to many or to most, not worth while. Frequently the present deprivation

[15] Limitation of apprentices enforced by an interested labor group against would-be future competitors may also be an influence not without significance but, probably, of much less importance than the cause discussed in the text.

which must be suffered to meet the cost of training seems much greater than can be compensated by the larger later earnings to be so gained. To many, indeed, the cost of training is practically prohibitive.[16] They simply *cannot* make the investment. Could funds be borrowed for this purpose at the current rate of interest charged on well-secured loans, the investment might pay much better than investments of other kinds. But the possibility that the borrower will become sick, or will die (though life insurance sometimes provides for this second contingency), or will simply fail to "make good," makes the security uncertain and the funds hard to get. In these days of compulsory education up to 14 or 16 years of age, of night schools and of correspondence schools, possibilities exist for many who refuse to take advantage of them. But the opportunities of the poor boy are hardly roseate. To work daytimes and study nights is much harder than to be supported by high-salaried fathers whilst securing the training for a life work. For some, despite ambition, the physical strain is prohibitive. For all in such circumstances, the securing of the preparation essential to the higher grade of work means years of deprivation of rest or pleasure or both.

The possibilities, however, are considerable for young men who are willing to defer marriage and the rearing of a family until after thirty. Indeed, marriage is not incompatible with self-accomplished success if children can be foregone until some

[16] Cf. Cairnes, *Some Leading Principles of Political Economy*, New York (Harper), 1874, pp. 65-68.

degree of preparation for more skillful work has been achieved. For both man and wife can then be remuneratively employed a part of the time and can make enough to pay for the leisure and expense necessary to train one or both the rest of the time. But to forego for so many years the satisfaction of one of the strongest animal instincts is, for most, too great a sacrifice. Unless the instinct can be satisfied and yet reproduction prevented, the opportunities of movement upward in the ranks of labor are likely to be much less availed of than might otherwise be the case. For various metaphysical, textual or conventional reasons, large masses of people believe the satisfaction of the sex instinct, when means are used to prevent conception, to be wrong. Obviously the utilitarian cannot jump to this conclusion. If consistent, he must test such means or practices by their effect on aggregate human happiness. He is bound to regard as desirable and as moral a policy or practice the tendency of which is to increase this happiness. The questions he would naturally ask regarding birth control are, first, whether it is desirable that the number of births in general or in certain classes or in certain families should be limited, second, if such limitation is desirable, whether the potential parents are happier in satisfying the sex instinct and preventing conception by artificial means than they would be to deny themselves such satisfaction, and third, whether artificial prevention of conception is necessarily injurious and, if so, whether it is injurious to such a degree as to offset the individual and social advantages resulting from it. If it is answered that restriction of births is often desirable, that the exercise of the sex instinct under such circumstances is a means of happiness and that the restrictive means may be so chosen as to have no injurious physiological effects of corresponding consequence, or, perhaps, no injurious physiological effects at all, can the thoroughgoing utilitarian do otherwise than approve birth control?

To the contention that general knowledge of the possibilities of birth control might result in an increase of promiscuous sex relations it may be replied that the earlier marriages thus made possible for persons who can not afford to risk having large families early in life, would greatly diminish, for many, the temptation to promiscuity. It is not promiscuous sex relations, but marriage, that usually brings to the male the responsibility of supporting children. It would seem reasonably certain, therefore, that for him ability to postpone the having of children until easy circumstances make them desired would tell in favor of matrimony and against promiscuity. But the opponents of birth control may believe, not only that there are other objections to promiscuity than the likelihood of children being born for whom no fathers can be made responsible, but also that these other objections are not of a sort to impress very much other persons than themselves. The opponents of birth control, in their superior wisdom, see these objections, but the masses of humanity, not being competent to manage their own affairs except when kept ignorant, by force of law, of some lines of action they might else desire to follow, cannot see these other objections and so might take up promiscuity. If indeed there are no reasons for objecting to promiscuity other than the danger that some children will have no definitely ascertainable fathers and if birth control removes this danger, then promiscuity must cease to be objectionable. But if there are other important objections to promiscuity it is entirely conceivable that the advocates of birth control and the masses generally are as capable of understanding them and being influenced by them as those to whom birth control is anathema.

In another aspect than the one already discussed does the matter of birth control touch the comparative welfare of different economic classes. Prosperous parents who can afford to give and do give their children the training necessary as preparation for the more remunerative kinds of work have relatively few children; while the poorer class of parents whose children can have little training have relatively large families. Not only would birth control among unskilled and slightly skilled wage earners enable them as individuals to fit their children for better jobs than their own; but also, even if they did not so educate their children it would tend to raise the wages of these children when they arrived at maturity since it would lessen the number of unskilled and slightly skilled wage earners. The knowledge required for birth control, although law prohibits its dissemination in the United States so that it is not easily available for the masses, is familiar to many if not most persons among the professional classes. They can and do regulate the number of children they shall have. It may be added that they do so in full consciousness of the fact that under present conditions there is a great gulf between professional earnings and the earnings of ordinary labor. They endeavor not to have more children than they can afford to educate for the professions or the higher positions in business. Were the birth rate among unskilled and slightly skilled wage earners lower, the number of children they could put into the higher grades of labor greater and, in any case, the number of children who must at maturity or sooner go into the lower grades of labor smaller, were the differences in wages of so-called high grade and so-called low grade labor thus reduced to a minimum, then it would not, perhaps, appear so unfair as now, to parents of the professional and business enterpriser class, to have more children than they could afford to educate for that class. Aptitudes might have more to do, in all families, and financial obstacles less, with the choice of future work by the children.

The subject of population and birth control is intimately related to the proper justification of child-labor prohibition. It has sometimes been objected by opponents of child-labor laws that to prohibit the labor of children may so limit the incomes of some families as to deprive the children themselves of proper food. The argument runs to the effect, therefore, that the prohibition of child labor may be more cruel than the permitting of it. The families affected need the food, the clothing, etc., which the children earn. Particularly are the earnings of the children needed when the number of children is large so that the father cannot properly support all. Superficially this argument may be plausible. But the fundamental consideration which it overlooks is that *permitting child labor makes families large.* To many a father willing to put his children to work at an early age these children have become an economic advantage. He has lived in comfort, in semi-idleness, perhaps in drunkenness, off of the earnings of their unhappy child efforts. To plead the necessity of child labor as an aid in the support of such families, is to be plead the necessity, as a palliative, of the very cause (in large part) of the evil. If child labor is sternly prohibited by law, the prohibition has the advantage of putting squarely upon parents the responsibility of supporting their children and of discouraging their having more children than they can comfortably support. Such a policy, coupled with unforbidden dissemination of methods of birth control, would go far to prevent multiplication of numbers in the now low-paid labor groups, with the consequent low wages, poor living and absence of opportunity. If the economic well-being of an entire community is to be maintained at a high level, perhaps nothing is so important as to establish the principle that those who bring children into the world must provide these children with a childhood not wholly devoid of opportunity and of happiness, and therefore, by implication, that they must not have more children than can be so provided.

§ 4

A Side Light on the Interest Problem

The chapters on interest[17] have, it is hoped, made it clear that interest, provided the capital for the use of which it is paid is not used in anti-social ways, is earned in just the same sense as are, with a like proviso, the wages of labor. The waiting yields a service to the community worth as much as the interest received, as truly as the labor yields a service worth as much as the wages received. The person who works and saves is, to the extent that this saving operates in aid of production, just as good a servant of the general welfare as the person who works more but saves less. Contrary to the view of orthodox socialism, interest as such is no more robbery or exploitation than wages. Nor would there probably have arisen so considerable an opposition to it *if its enjoyment were widely distributed among the masses in any such degree as the enjoyment of wages*. Interest appears to lack justification to many because it seems to be connected with a narrow class interest.

At just this point we need to recur to our discussion of comparative birth rates. The reason why large classes of the population cannot enjoy interest is because their wages are low and because their families are large. Their wages are low because they have many competitors in their unskilled work and they have many competitors because the previous generation of unskilled laborers had relatively large families and could help

[17] Chapters III and IV.

few of their children into better paying kinds of labor. Fewer children in this class of the population would make accumulation of capital possible to them in just the same way that it would make possible the investment of larger sums in the industrial training of their children. And fewer children among wage earners of this class would mean, in a generation, not only smaller expenses for the bare necessities of life, but also larger wages from which to make savings. If we can, eventually, stamp out exploitation and if we can, at the same time, intelligently control population changes, there need be no reason why any family may not have some accumulated capital and receive an interest income along with its labor income and, at the same time, labor incomes may reasonably be expected to become less unequal than now. If, with the way of hope thus open to each family, some refuse to profit by it, we can hardly conclude that posterity will be benefited either in stimulus to ambition or in the greater inheritance of desirable traits, by a policy which would take a part of the earnings of the ambitious, the capable, the industrious, the far-sighted and the saving, in order to increase the already too numerous progeny of those who possess none or few of these virtues.

There is no intention here, to suggest that interest or, for that matter, wages, constitutes an income of a peculiarly sacred sort so as, for example, to be an unfit subject for taxation. Government, which serves all of us, needs funds to do so and, *if no better and adequate sources of revenue can be found,* it may properly enough tax both interest and wages.[18] But there *is* the intention to emphasize the similarity of interest and wages so far as the giving by the recipient of a *quid pro quo* is concerned, and to suggest that wider and unimpeded spread of knowledge and ideals, increased emphasis on parental responsibility, and, along with these things, the effective prohibition of all forms of exploitation, may do much that so-called *corrective taxation* has been called upon by its advocates to do, and may do it better and with less of offsetting evil.

§ 5

General Wages and Population

Even if it were possible to get the most desirable proportion of the population in each kind of work and in each class or stratum of labor, this would not alone solve the population problem; population *as a whole* must be reasonably limited. Invention may for a while go on so rapidly that a larger population can be better fed than a smaller one was before. Inventions and discoveries of some sorts make it desirable to devote more time to less land, for example, the discovery that spraying trees leads to their yielding of more, larger and better fruit. Inventions and discoveries of such a kind may mean that a larger population can secure as much per capita as, with the same degree of skill and knowledge, a smaller popula-

[18] Least of all can any class able to pay largely, fairly claim exemption when the nation is in peril from foreign foes and when lives must be sacrificed as well as incomes. A source or sources of public revenues ordinarily ideal may then prove insufficient,

tion could secure. But not all inventions and discoveries work to this effect. Some, for example the invention of much of agricultural machinery, enable fewer people effectively to utilize larger areas. The consequence of such inventions is that a large population is relatively superfluous, that the additional men add relatively little to the total product of industry, that the point of diminishing returns is passed when with the same population and less advance in the mechanic arts it would not be reached. This conclusion is not inconsistent with the fact that the inventions in question may enable the existing population to be supported in greater average comfort than before.[19] Our conclusion is simply that the gain from those inventions which enable few people to utilize larger areas would often be greater per capita were population smaller. It is not necessary, therefore, to show that increasing population always involves increase of poverty, to make reasonable an opposition to the growth of numbers. If it be merely shown that per capita wealth is likely not to increase as rapidly or as far with development of the arts of life, in the case of a larger population as in the case of a smaller one, the desirability of the smaller population may be sufficiently established.

But what is our standard or test of an ideal population? Would we prefer that there should

[19] Though there may be effects on distribution such that landowners as such derive most or all of the gain, or more than the gain. See Henry George, *Progress and Poverty*, Book IV, Chapter III.

be in the United States 75 million very happy persons, 150 million moderately happy persons, or 300 million persons whose average happiness is slightly better than zero? Is the greatest *aggregate* surplus of pleasure over pain our desideratum or is the greatest *per capita* surplus of pleasure the thing to be aimed at? The former would probably be realized with a density of population somewhat greater and a *per capita* income somewhat less than the latter. If we suppose that the greatest *per capita* happiness is the thing to be sought, it is likely that the desirable degree of density of population is such as, on a given stage of technological development, will make for the largest possible *per capita* product with the smallest *per capita* effort.[20] But in any case and according to any reasonable test the ideal population is almost certainly *not* the maximum possible population.

It is not to be expected that the ideal population will ever be exactly attained for the world as a whole or for any part of the world. If the number of children to a family comes to be a matter of individual judgment and choice, with free diffusion of knowledge as to how the desired number may be made the actual number, population will probably tend to adjust itself in the direction of the greatest *per capita* happiness. It is to the interest of the individual and of the family that individual well-being and family well-being should become the

[20] Allowance must be made for the fact that what is the ideal population may change as knowledge of the arts of life changes. The ideal population in this generation *may not be* the population which is best for the men and women of this generation but may be one which can easily grow into or decline into the population which is best for later generations.

greatest possible. It is not unreasonable to suppose that the greatest *aggregate* net happiness would also be greater were births so restricted as to avoid some of the abject poverty which now results from too rapid increase in certain families and classes.

§ 6

Immigration and Wages

Even if the people of a country adopt a rational attitude toward the population problem, the possibility of overpopulation from immigration has still to be faced. Thus, a policy of limiting offspring among the present population in the United States in the hope that the next generation would not find competition too severe, might have its intended results negatived by an inflow of labor from other countries. The children of races which had applied no such limitation might come in to inherit, in part, the land whose small population the intelligence of its people had made possible, and to decrease largely the gain resulting from such intelligence. Immigration may offer a continuing prospect of gain to the landowners of a country but it holds out no general promise of gain to native wage earners.[21]

§ 7

Summary

We have seen that wages are fixed by demand and supply at such a point that wage-earners tend

[21] Cf. the author's *Principles of Commerce*, New York (Macmillan), 1916, Part II, Chapter VI, § 3, footnote.

to receive the marginal value product of their labor. The value of the goods produced by some classes of labor is low and the wages of the laborers are low simply because these laborers are numerous and products of their labor relatively too plentiful. These classes of workers have so little surplus spending power that they can not usually afford the cost of raising their children out of their own class. Nor do they sufficiently limit the number of their children, on the average, to reduce the labor supply in their own class in the next generation and so make necessary higher wages for that class. Limitation of size of families would help them to aid their children more effectively to prepare for other work and, even if it did not, would eventually raise the wages for the work in question. A better relative adjustment of numbers in different labor groups would also make possible a more widespread accumulation of capital. Interest is earned as surely as wages are earned, if the test is the giving of a *quid pro quo* by the recipient. But interest is not so generally enjoyed and hence is looked on by the masses with less favor. The ideal perhaps is that every family should receive an interest income as well as a wage income. Population in general needs to be limited as well as population in special groups, in order that average prosperity and happiness may be high. This may necessitate for low birth rate countries restrictions on the too free immigration from countries whose inhabitants multiply with little regard to economic consequences.