THE ECONOMICS OF MINIMUM WAGE LEGISLATION

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The minimum wage provisions of the Fair Labor Standards act of 1938 have been repealed by inflation. Many voices are now taking up the cry for a higher minimum, say, of 60 to 75 cents per hour.

Economists have not been very outspoken on this type of legislation. It is my fundamental thesis that they can and should be outspoken, and singularly agreed. The popular objective of minimum wage legislation—the elimination of extreme poverty—is not seriously debatable. The important questions are rather (1) Does such legislation diminish poverty? (2) Are there efficient alternatives? The answers are, if I am not mistaken, unusually definite for questions of economic policy. If this is so, these answers should be given.

Some readers will probably know my answers already ("no" and "yes," respectively); it is distressing how often one can guess the answer given to an economic question merely by knowing who asks it. But my personal answers are unimportant; the arguments on which they rest, which are important, will be presented under four heads:

1. Effects of a legal minimum wage on the allocation of resources.
2. Effects on aggregate employment.
3. Effects on family income.
4. Alternative policies to combat poverty.

1. *The Allocation of Resources*

The effects of minimum wages may in principle differ between industries in which employers do and do not have control over the wage rates they pay for labor of given skill and application. The two possibilities will be discussed in turn.

Competitive Wage Determination

Each worker receives the value of his marginal product under competition. If a minimum wage is effective, it must therefore have one of two effects: first, workers whose services are worth less than the minimum wage are discharged (and thus forced into unregulated fields of employment, or into unemployment or retirement from the labor force); or, second, the productivity of low-efficiency workers is increased.

The former result, discharge of less efficient workers, will be larger the more the value of their services falls short of the legal minimum, the more elastic the demand for the product, and the greater the possibility of substituting other productive services (including efficient labor) for the inefficient workers' services. The discharged workers will, at best, move to unregulated

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jobs where they will secure lower returns. Unless inefficient workers' productivity rises, therefore, the minimum wage reduces aggregate output, perhaps raises the earnings of those previously a trifle below the minimum, and reduces the earnings of those substantially below the minimum. These are undoubtedly the main allocational effects of a minimum wage in a competitive industry.

The second and offsetting result, the increase of labor productivity, might come about in one of two ways: the laborers may work harder; or the entrepreneurs may use different production techniques. The threat of unemployment may force the inefficient laborers to work harder (the inducement of higher earnings had previously been available, and failed), but this is not very probable. These workers were already driven by the sharp spurs of poverty, and for many the intensity of effort must be increased beyond hope (up to 50 or more per cent) to avoid discharge.

The introduction of new techniques by the entrepreneurs is the more common source of increased labor productivity. Here again there are two possibilities.

First, techniques which were previously unprofitable are now rendered profitable by the increased cost of labor. Costs of production rise because of the minimum wage, but they rise by less than they would if other resources could not be substituted for the labor. Employment will fall for two reasons: output falls; and a given output is secured with less labor. Commonly the new techniques require different (and hence superior) labor, so many inefficient workers are discharged. This process is only a spelling-out of the main competitive effect.

Second, entrepreneurs may be shocked out of lethargy to adopt techniques which were previously profitable or to discover new techniques. This "shock" theory is at present lacking in empirical evidence but not in popularity.

There are several reasons for believing that the "shock" theory is particularly inappropriate to the industries paying low wages. All of the large manufacturing industry categories which in 1939 paid relatively low wages (measured by the payroll of wage-earners divided by their average number) are listed in Table I. A study of this table suggests two generalizations: (1) the low-wage industries are competitive, and (2) the ratio of wages to total-processing-cost-plus-profit is higher than in high-wage industries. The competitive nature of these industries argues that the entrepreneurs are not easy-going traditionalists: vigorous competition in national markets does not attract or tolerate such men. The relatively high labor costs reveal that inducements to wage-economy are already strong. These considerations both work strongly against the shock theory in low-wage manufacturing industries in 1939.[1] Since these industries were on the whole much less affected by the

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[1] The current extensive and confident uses made of labor productivity indexes seem to me inappropiate to their ambiguity and inaccuracy. For those who are less skeptical, I may add that for the period 1929 to 1937, output per worker can be approximated for 9 of the industries in Table I (using data from S. Fabricant's *Employment in Manufacturing,* 1899-1939 [New York, Nat. Bur. of Econ. Research, 1942]). In 6 of the 9 industries the increase in labor productivity equalled or exceeded that of all manufacturing.

war than other manufacturing industries, they will probably be present in the post-war list of low-wage industries. The low-wage industries in trade and services display the same characteristics and support the same adverse conclusion with respect to the shock theory.[2]

TABLE I.—EMPLOYMENT, AVERAGE ANNUAL EARNINGS OF FULL-TIME WAGE-
EARNERS, AND PERCENTAGE WAGES FORM OF VALUE-ADDED,
IN LOW-WAGE MANUFACTURING INDUSTRIES, 1939

Industry	Employment	Average Earnings	Wages as Percent of Value Added
Men's and boys' furnishings	166,945	$632	52.2
Canned and preserved foods	134,471	660	28.0
Cigars	50,897	673	42.0
Cotton manufactures	409,317	715	51.1
Fertilizer	18,744	730	24.0
Wood containers	45,070	735	47.2
Women's accessories	58,952	740	41.3
Misc. fabricated textiles	49,242	746	36.2
Misc. apparel	38,288	769	45.5
Rayon and silk manufactures	119,821	779	54.4
Animal and vegetable oils	21,678	781	25.1
Costume jewelry, etc.	25,256	782	43.5
Sawmills, etc.	265,185	810	52.0
Leather products	280,411	847	50.9
All Manufacturing		1,153	36.8

Source: *Census of Manufactures, 1939*.

Employer Wage Determination

If an employer has a significant degree of control over the wage rate he pays for a given quality of labor, a skillfully-set minimum wage may increase his employment and wage rate and, because the wage is brought closer to the value of the marginal product, at the same time increase aggregate output. The effect may be elucidated with the hypothetical data in Table II. If the entrepreneur is left alone, he will set a wage of $20 and employ 50 men; a minimum wage of $24 will increase employment to 70 men.

This arithmetic is quite valid, but it is not very relevant to the question of a national minimum wage.{The minimum wage which achieves these desirable ends has several requisites:

1. It must be chosen correctly: too high a wage (over $28 in our example) will decrease employment. The accounting records describe, very imperfectly, existing employment and wages; the optimum minimum wage can be set only if the demand and supply schedules are known over a considerable range. At present there is no tolerably accurate method

[2] We should perhaps also notice that, even if the shock theory were of general applicability, the maintenance or increase of employment would require also (1) that demand be elastic, and (2) low-efficiency workers continue to be used with the improved techniques.

of deriving these schedules, and one is entitled to doubt that a legislative mandate is all that is necessary to bring forth such a method.

2. The optimum wage varies with occupation (and, within an occupation, with the quality of worker).

3. The optimum wage varies among firms (and plants).

4. The optimum wage varies, often rapidly, through time.

TABLE II.—HYPOTHETICAL DATA ILLUSTRATING EMPLOYER
WAGE DETERMINATION

Number of Workers	Wage Rate	Marginal Cost of a Worker	Value of the Marginal Product[a]
10	$12		$36
20	14	$16	34
30	16	20	32
40	18	24	30
50	20	28	28
60	22	32	26
70	24	36	24

[a] Or marginal value product, if this is less.

A uniform national minimum wage, infrequently changed, is wholly unsuited to these diversities of conditions.[3]

We may sum up: the legal minimum wage will reduce aggregate output, and it will decrease the earnings of workers who had previously been receiving materially less than the minimum.

2. Aggregate Employment

Although no precise estimate of the effects of a minimum wage upon aggregate employment is possible we may nevertheless form some notion of the direction of these effects. The higher the minimum wage, the greater will be the number of covered workers who are discharged. The current proposals would probably affect a twentieth to a tenth of all covered workers, so possibly several hundred thousand workers would be discharged. Whatever the number (which no one knows), the direct unemployment is substantial and certain; and it fairly establishes the presumption that the net effects of the minimum wage on aggregate employment are adverse.

This presumption is strengthened by the existing state of aggregate money demand. There is no prospective inadequacy of money demand in the next year or two—indeed, the danger is that it is excessive. If the minimum wage were to increase the relative share of wage-earners and, hence, the propensity to consume—which requires the uncertain assumption that the demand for inefficient labor is inelastic—the increment of consumer demand will be

[3] One can go much farther: even administratively established minima, varying with firm and time, would be impossibly difficult to devise and revise, and their effects on private investment would be extremely adverse.

unnecessary, and perhaps unwelcome.[4] (Conversely, the direct unemployment resulting from the wage law would diminish faster in a period of high employment.)

It is sufficient for the present argument that no large increase in employment will be induced by the legislation. Actually, there is a presumption that a minimum wage will have adverse effects upon aggregate employment.

3. Wage Rates and Family Income

The manipulation of individual prices is neither an efficient nor an equitable device for changing the distribution of personal income. This is a well-known dictum that has received much documentation in analyses of our agricultural programs. The relevance of the dictum to minimum wage legislation is easily demonstrated.

One cannot expect a close relationship between the level of hourly wage rates and the amount of family income. Yet family income and needs are the fundamental factors in the problem of poverty. The major sources of discrepancy may be catalogued.

First, the hourly rates are effective only for those who receive them, and it was shown in Section 1 that the least productive workers are forced into uncovered occupations or into unemployment.

Second, hourly earnings and annual earnings are not closely related. The seasonality of the industry, the extent of overtime, the amount of absenteeism, and the shift of workers among industries, are obvious examples of factors which reduce the correlation between hourly earnings and annual earnings.

Third, family earnings are the sum of earnings of all workers in the family, and the dispersion of number of workers is considerable. The

TABLE III.—PERCENTAGE DISTRIBUTION OF WAGE-EARNER FAMILIES BY
NUMBER OF EARNERS: MINNESOTA, 1939

Family Income	One Earner	Two Earners	Three Earners	Four or more Earners
$250–$500	94.5	4.6	.7	.2
500– 750	92.4	7.1	.3	.2
750–1000	86.7	10.7	1.5	1.1
1000–1250	88.5	10.4	1.1	.1

Source: *Minnesota Incomes, 1938–39*, Vol. II (St. Paul, Minnesota Resources Commissio n, 1942), p. 152.

summary in Table III for low income wage-earner families in Minnesota in 1939, shows that in the $250-$500 income class one-twentieth of the families had more than one earner and in the higher income classes the fraction rose to one-eighth.

[4] This line of argument implies that a minimum wage is more likely to have beneficial effects in depression (if the demand for the relevant labor is inelastic), but it does not imply that the beneficial effects are likely.

Fourth, although wages are, of course, the chief component of the income of low-wage families, they are by no means the only component. It is indicated in Table IV that a tenth of the wage-earner families had cash investment income, a quarter had entrepreneural income, and a quarter owned their homes.

TABLE IV.—COMPOSITION OF INCOME OF WAGE-EARNER FAMILIES:
MINNESOTA, 1939

Income Class	Total	Wages and Salaries	Income		Investment Income	
			Entre-preneural Income	Room and Board	Cash	Total
1. Percentage of Families Receiving Income						
$250–$500		99.9	26.5	1.3	12.3	28.2
500– 750		100.0	25.2	1.7	10.1	24.2
750–1000		100.0	21.4	2.7	9.4	31.2
1000–1250		100.0	18.4	3.0	10.4	22.8
2. Average Amount						
250– 500	$ 387	$ 308		–$ 9	$64	
500– 750	631	560		62	82	
750–1000	865	766		53	82	
1000–1250	1124	1032		91	96	

Source: *Minnesota Incomes, 1938–39,* Vol. I (St. Paul, Minnesota Resources Commission, 1942), p. 42; Vol. II, p. 200.

All of these steps lead us only to family income; the leap must still be made to family needs. It is argued in the next section that family composition is the best criterion of need, and whether this be accepted or not, it is clearly an impqrtant criterion. The great variation in family size among wage-earner families is strongly emphasized by the illustrative data in Table V; an income adequate for one size is either too large or too small for at least half the families in that income class.

The connection between hourly wages and the standard of living of the family is thus remote and fuzzy. Unless the minimum wage varies with the amount of employment, number of earners, non-wage income, family size, and many other factors, it will be an inept device for combatting poverty even for those who succeed in retaining employment. And if the minimum wages varies with all of these factors, it will be an insane device.

4. *The Problem of Poverty*

Minimum wage legislation commonly has two stated objectives: the reduction of employer control of wages; and the abolition of poverty. The former and much lesser purpose may better be achieved by removing the condition of labor immobility which gives rise to employer control. Labor immobility would be reduced substantially by public provision of comprehensive information on employment conditions in various areas and industries. The immobility would be further reduced by supplying vocational training and

loans to cover moving costs. But employer wage control is not the important problem; let us turn to the elimination of poverty.

Incomes of the poor cannot be increased without impairing incentives. Skillful policies will, for a given increase in the incomes of the poor, impair incentives less than clumsy policies. But the more completely poverty is eliminated, given the level of intelligence with which this is done, the greater will be the impairment of incentives. This is a price we must pay, just as impairment of incentives is a price we have willingly paid to reduce the inequality of income by progressive income and estate taxes. Society must determine, through its legislators, what minimum income (or addition to income) should be guaranteed to each family. We shall assume that this difficult decision has been made.

TABLE V.—PERCENTAGE DISTRIBUTION OF WAGE-EARNER FAMILIES BY NUMBER
OF PERSONS: CHICAGO AND ATLANTA, 1936

| Income Class | Number of Persons in Family | | | |
	2	3 or 4	5 or 6	7 or more
1. *Chicago*				
$ 0–$250	39.6	43.6	14.9	2.0
250– 500	35.3	45.8	17.6	1.3
500– 750	31.8	53.7	13.0	1.6
750–1000	29.0	56.5	12.4	2.1
2. *Atlanta*				
0– 250	30.	55.	15.	0.
250– 500	20.1	48.1	16.5	5.3
500– 750	22.6	46.9	24.4	6.2
750–1000	21.6	48.1	23.5	6.7

Sources: *Family Income in Chicago, 1935–36* (Bur. of Lab. Stat. bull. no. 642 [Washington, Supt. Docs., 194]),Vol. I, p. 117; *Family Income in the Southeastern Region* (Bur. of Lab. Stat., bull. no. 647 [Washington, Supt. Docs., 194]), Vol. I, p. 148.

One principle is fundamental in the amelioration of poverty: those who are equally in need should be helped equally. If this principle is to be achieved, there must be an objective criterion of need; equality can never be achieved when many cases are judged (by many people) "on their merits." We are driven almost inexorably to family size and composition as this criterion of need. It is obviously imperfect;) the sickly require more medical care than the healthy.[5] But it is vastly easier to accord special treatment to certain families for a few items like medical care than to accord special treatment to every family for the sum of all items of expenditure.

It is a corollary of this position that assistance should not be based upon occupation. The poor farmer, the poor shopkeeper, and the poor miner are

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[5] One could argue that rural families should receive less help, to offset the lower prices at which food and housing are procured. The group is of sufficient size and perhaps sufficiently identifiable to justify separate treatment. But there are grounds other than political expediency for rejecting this proposal.

on an equal footing. There may be administrative justification (although I doubt it) for treating the farmer separately from the urban dweller, but there is no defense in equity for helping the one and neglecting the other. To render the assistance by manipulating prices is in any case objectionable: we help the rich farmer more than the poor, and give widely differing amounts of help to the poor farmer from year to year.

The principle of equity thus involves the granting of assistance to the poor with regard to their need (measured by family composition) but without regard to their occupation. There is a possible choice between grants in kind and in money. The latter commends itself strongly: it gives full play to the enormous variety of tastes and it is administratively much simpler. Yet it raises a problem which will be noticed shortly.

Even if these general observations be accepted, the structure of administration is of grave importance, and I do not pretend to have explored this field. There is great attractiveness in the proposal that we extend the personal income tax to the lowest income brackets with negative rates in these brackets. Such a scheme could achieve equality of treatment with what appears to be a (large) minimum of administrative machinery. If the negative rates are appropriately graduated, we may still retain some measure of incentive for a family to increase its income We should no doubt encounter many perplexing difficulties in carrying out this plan, but they are problems which could not be avoided, even though they might be ignored, by a less direct attack on poverty.

One final point: We seek to abolish poverty in good part because it leads to undernourishment. In this connection, dietary appraisals show that in any income class, no matter how low, a portion of the families secure adequate diets, and in any income class, as high as the studies go, a portion do not. The proportion of ill-fed, to be sure, declines substantially as income rises, but it does not disappear. We cannot possibly afford to abolish malnutrition, or mal-housing, or mal-education, only by increasing incomes.

Either of two inferences may be drawn. The program of increasing income must be supplemented by a program of education—in diet, in housing, in education! Or the assistance to the poor should be given in kind, expertly chosen. The latter approach is administratively very complex, but quicker and in direct expenditure vastly more economical. These factors affect our choice, but a thought should be given also to the two societies to which they lead.