

Levy

Benjamin Graham on

The Flexible Work-Year:

An Answer to Unemployment

2
OCCASIONAL PAPER ON THE ROLE OF THE ECONOMIC ORDER IN THE FREE SOCIETY PUBLISHED BY THE CENTER FOR THE STUDY OF DEMOCRATIC INSTITUTIONS



5

Benjamin Graham combines extensive business and academic experience. He is presently both professor in residence at the University of California, Los Angeles, and vice-chairman of the Government Employees Insurance group of companies in Washington, D. C. He has written extensively on security analysis and on various general economic subjects.

1941 marked the appearance of a new phenomenon in American history: the presence of large unemployment at a time when business was good. Business activity was 108 per cent of normal, but unemployment averaged 5,560,000, or nearly 10 per cent of the work-force. Before 1941 large-scale unemployment had always been a product of "hard times" and had disappeared with the return of prosperity. In 1925, for example, when business activity averaged 107 per cent, the unemployment rate had been only 4 per cent. At the end of 1941, of course, Pearl Harbor solved the problem of the jobless all too effectively.

It was when the war neared its close that economists began to worry about the prospects for full employment when peace returned. Two authorities, E. E. Hagen and H. Kirkpatrick, projecting ahead into 1950, concluded that America would enjoy continued full production and full employment only by "fortuitous good fortune" or by "extremely wise social engineering." It seemed that neither of those aids could be counted upon, the second probably less than the first. But the apprehensions proved ill-founded. First, there was the "catching-up" demand for consumer goods after the war and, especially, an enormous expansion of our productive capacity. Then in 1950 there came the Korean War followed

by an apparently endless cold war. Business has remained at or above normal continuously since 1950, with the exception of seven months in 1958. Nevertheless, the 1941 syndrome of active business combined with high unemployment has again made its appearance.

In 1961, with the business activity index at 105 per cent, the unemployment rate averaged 6.8 per cent. In 1962 business conditions were distinctly good—109.3 per cent of normal—but unemployment remained at an unacceptable 5.6 per cent and would have been appreciably higher had it not been for an unexpected *fall* in the ratio of the labor force to population over 13. Beginning in 1964 the proportion will undoubtedly increase as a larger number of young people than heretofore enter the labor market. Thus, the unemployment situation threatens to pass from the unsatisfactory to the critical stage.

How should this problem be dealt with? Some labor unions insist that the remedy lies in shorter hours of work, and they have initiated a formal campaign to obtain a standard work-week of 35 instead of 40 hours, with the same weekly pay. The Administration has set itself determinedly against any reduction in the work-week. Its goal is full production with full employment at 40 hours. It proposes to reach this goal by a program of tax reductions

F-11
2676

accompanied by large-scale budget deficits (hopefully temporary). It asserts that a 35-hour week at 40 hours' pay would entail a crippling rise in our production costs, would greatly worsen our competitive position in world markets, and would bring about smaller rather than greater production.

This paper proposes to demonstrate that both the union and the Administration attitudes toward shorter hours are extreme and untenable. The labor union proposal does indeed imply a sudden jump of 14.3 per cent in hourly wages¹, with adverse effects on profits, on the cost of living, or on both. Conversely, Washington's insistence on maintaining a 40-hour week does nothing in itself to solve the unemployment problem; it runs counter to all our economic experience since 1900; and it disposes in summary and superficial fashion of a mechanism, which, if it is properly understood and used, may contribute significantly in the future to the amelioration of unemployment.

The concept of *flexible hours of work*—which it is important to envisage in terms of the work-year rather than the work-week—occupies a middle ground between the slogans of “no cut in the 40-hour week” and “35 hours' work at 40 hours' pay.” This paper will examine both the possibilities and the limitations of this concept as a means of keeping unemployment within tolerable limits. Our conclusions will be based in good part on relationships between changes in productivity and changes in per capita consumption that have obtained in nearly all periods during the past seventy years. The historical data are analyzed in the appendix which forms the second part of this study.

WORK-YEAR VS. WORK-WEEK

If it is to have a practical chance of adoption, a mechanism for a flexible work-year must subject itself to three limiting or negative conditions:

1) It must not interfere with the attainment of full employment at a 40-hour-week equivalent, if this can be achieved by any method the country is willing to try. 2) It must not ask workers already em-

1. If \$100 is paid for 35 hours instead of for 40 hours the hourly wage would rise from \$2.50 to \$2.86, or one-seventh.

ployed to accept a cut in their annual earnings. 3) It must be tied in with increasing productivity in such a way as not to raise the nation's average unit costs of production.

Within these three limitations the mechanism may contain two positive features:

1) To the extent required by the current rate of unemployment, it may make workers take all or part of the fruits of increased productivity in the form of increased leisure. This means that while the pay for each hour of work should rise to reflect the gains in productivity, the number of hours worked per year may be simultaneously reduced *to the same or a lesser degree*. 2) The currently unemployed, including those newly entering the work-force, may be required to share fully among themselves the available new employment. (The prohibition against reduction in present earnings would, of course, have no applicability in these cases.) Employers and the government together should be responsible for establishing the machinery needed for this full-scale sharing of work opportunities.

I summed up the underlying principle of this mechanism for a flexible work-year as far back as 1945 in an article in *The American Economic Review*: “To the greatest extent permitted by patterns of consumption, let us take our gain from increased productivity in larger output and better living standards. To the extent this is not feasible, let us take the balance of our gain in shorter hours. (Failing that, we shall take it in unemployment, and the ‘gain’ becomes a tragic loss.)”

It is an anomaly that some authorities have a viewpoint toward the work-year different from their attitude toward the work-week, as exemplified in this quotation from the *Wall Street Journal* of May 3, 1963: “Kennedy lieutenants applaud union moves to cut working time with longer vacations and more holidays. But they still oppose shorter work-week.” Similar favorable views have been expressed by business publications on existing and proposed “sabbatical leaves” for long-employed workers, which—as the *Wall Street Journal* had put it earlier—“have the effect of cutting the work-week for those concerned.”

The distinction these people make between a shorter work-year and a shorter work-week is illogical. Both

have the same bad effect of reducing annual output per worker and the same good effect of making room for more workers. Whether a shorter work-year should be achieved by a reduction in the hours worked each week or by longer vacations, etc. is in no sense a question of principle but should be governed by operating requirements and workers' preferences.

Actually, it is the number of hours worked per year and not per week that forms the basis of calculations of output per man-hour and hence of all economic data that turn on the key figure of average productivity. In view of the growing impact of paid vacations² and holidays it has become essential to deal with hours of work in terms of the work-year, and to use the traditional work-week statistics, if at all, only as rough guides to changes in the work-year. Between 1957 and 1962 the average work-year for the nation appears to have declined appreciably, despite an increase in the *work-week* figures for manufacturing and certain other categories of employment.

THE DANGERS TO COME

Philip M. Hauser has warned about the dangerous impact of the expected influx of young people into the labor force—the immediate post-war “baby crop.”³ “This bulge in workers,” Professor Hauser stated, “coming at a time when we are experiencing a high level of chronic unemployment and increasing automation, may constitute the gravest challenge our economy has ever faced in peacetime.” If, furthermore, productivity should continue to increase—through automation or otherwise—at a faster rate than our Gross National Product (GNP), as it has done not only recently but for most periods in the past, then the unemployment rate would rise by an additional substantial percentage—unless it is offset by a shorter work-year.

2. In 1925 only 18 per cent of employers gave vacations with pay to production workers; in 1961-2 99 per cent gave vacations of one week or more, and 30 per cent gave four weeks or more, generally after twenty years' service. *Monthly Labor Review*, March, 1963.

3. Estimates in the Manpower Report indicate an expected rise of about 4 per cent in the labor-force proportion from 1962 to 1965. If other ratios remain the same, this would mean an increase in the unemployment ratio from 5.6 per cent of the labor force in 1962 to about 9.5 per cent in 1965.

Can this inadmissible result be prevented without reducing the hours of work? It is the official stand of the Administration that it can be prevented by stimulating the economy through tax reductions, at the cost of a *temporary* unbalancing of the budget. Some economists argue that moderate increases in the federal debt may be incurred continuously without adverse effects, especially if GNP grows at least as fast as the debt. This view implies acceptance of budgetary deficits as a “way of life” in the modern economy, presumably because their addition to purchasing power is needed to create the required rates of expansion in consumer and investment demand.

The controversy over whether budgetary deficits are good or bad will not be settled by logical arguments. The indications are clear that we shall have such deficits, perhaps for an indefinite time in the future. To what extent they will remedy actual and threatening unemployment remains to be seen. Regardless of whether one is optimistic or pessimistic on that score, ordinary common sense should tell us that a sufficiently good result cannot be counted upon as *assured*. Prudence demands that we consider the possibility of non-success, or only partial success, from tax reductions with or without continuing deficits, and that we open our minds to such other ways as may be feasible for dealing with the problem. The flexible work-year may well be essential as the second string to our economic bow—to be called into use if the tax cut-deficit-spending string proves inadequate for its task.

In essence, the flexible work-year merely applies in a systematic and rational way the mechanism that has enabled us—more by accident than by design—to meet our unemployment problem reasonably well over most of the past half-century. It would change adjustments of hours from an accidental offset to unemployment to a planned and purposeful corrective. The scheme for flexible hours would not in itself require that the work-year be shortened continuously. Nor would it interfere with any measures taken to expand demand and GNP at a rate sufficient to render a cut in hours unnecessary. It requires cooperation from employers in the form of a genuine willingness to fit additional employees into their operation by suitable adjustments of vacation time or otherwise. Most of all, it requires a genuine will-

ingness on the part of labor union leaders and members to take at least *part* of their gains from increased productivity in more leisure time, in order that their fellow-workers may be employed.

If hours could be adjusted equally through the entire structure of paid employment, a very slight change could produce a significant drop in the jobless rate. For example, a cut of fifty hours in the work-year—equivalent to one hour a week—could have reduced the unemployment of 1962 by about one-half, and neatly disposed of the entire problem.

But the actual structure of employment and unemployment does not permit this simple across-the-board solution. The unemployment rate varies greatly between different categories of jobs and people; in substantial areas—such as the self-employed, executives, and supervisory personnel—the “share the work” concept is virtually inapplicable. Any flexible work-year mechanism would have to be operated on a selective and partial basis. Nonetheless, it could be applied to a substantial segment of the work-force and produce results of substantial value.

THE UAW PROPOSAL

At a Special Collective Bargaining Convention in April, 1961, the United Auto Workers, under the leadership of Walter Reuther, proposed that the “Fair Labor Standards Act be amended to provide for systematic adjustment of the standard work-week based on the level of unemployment.” The details of the proposal included the following:

- 1) The standard work-week to remain at 40 hours when unemployment is less than a specified percentage of the labor force.
- 2) The work-week to be reduced by specified amounts as the rate of unemployment rises above the “40-hour level.” The reverse process would be applied as unemployment declines.
- 3) Reductions in the work-week must be coupled with compensation for the hours cut out of the regular weekly schedule, in order to maintain the same weekly pay.
- 4) However, the compensating pay required to maintain take-home pay in the face of a reduced work-week is to be provided not by the individual employer but out of a National Work-Week

Adjustment Fund to be accumulated through a “small payroll tax on all employers.” The UAW estimates that the payroll tax required would average less than 1 per cent when spread over the entire business cycle, and would be largely offset by reductions in the present contributions made by employers to unemployment funds.

The UAW proposal has good and bad points. It is much more reasonable than the bald demand for a 35-hour week at 40 hours’ pay voiced at the meeting of the AFL-CIO Council in 1962 and 1963; in fact, it is better than it reads. The chief defect of the presentation is the lack of adequate discussion of the relationship between the adjustment of hours and the normal annual “productivity increases” in wages.⁴ This is alluded to in the sentence: “Traditionally we have always taken part of the fruits of advancing technology in our material standard of living and part in the form of increasing leisure.” But the point is not pursued. The picture it presents is of an unchanged weekly wage, with the cost of the shorter work-week being borne by the employers. The latter would suspect that what is really envisaged is something very different—namely, that wages would continue to increase as before (up to or exceeding the rise in productivity), and then the hourly wage would increase still further to offset the automatic reduction in hours.

Such a one-sided arrangement would indeed be unsatisfactory. It is unfortunate that the UAW statement did not make clear that the proposers were prepared to have future *weekly* wage increases held down to the extent that part of “the fruits of advancing technology” were to continue to be taken in the form of increasing leisure; also—and this is most important—that any downward adjustment of hours would be made *at the same time* as advances in hourly wages and would form part of a single adjustment. If, in the future, productivity could increase at about 3 per cent a year, then the 1 per cent average annual reduction in hours implied in the UAW estimate of a 1 per cent annual payroll tax could be accompanied by an average annual rise of 2 per cent in take-home pay. Such a pattern would be both feasible and fair.

4. It should be remembered that UAW’s contract with General Motors provides for an annual productivity increase of 3 per cent, as well as for cost-of-living adjustments.

and it would bring about a somewhat faster increase in our standard of living than we experienced between 1890 and 1925 or between 1925 and 1960.

The UAW report refers to the necessity of "achieving a balance between purchasing power and productive capacity," and proposes to do this by maintaining the same weekly pay for the reduced hours. As I have pointed out, the latter aim could well be exceeded—provided the adjustments in wages and hours were made at the same time—on the basis of an average annual reduction of 1 per cent in the work-year. But the reference to purchasing power introduces a complicating factor into the discussion, which in essence has nothing to do with flexible hours of work. It implies that labor's share of the national product must be higher than it is now in order to permit the country to buy goods up to its full productive capacity. This, in turn, implies that the employers' profit margins and probably their return on capital must be lower, although they claim vociferously that they have long been subjected to a "profit squeeze" that limits their ability and desire to add to facilities and thus to increase employment.

This argument is similar to the one over whether continuous budgetary deficits are needed to create effective purchasing power sufficient to absorb our expanding production. These are two unresolved—and perhaps unresolvable—areas of dispute between "liberal" and "conservative" economists and between labor leaders and business leaders. It is essential for a proper understanding and acceptance of the concept of flexible hours that it be disassociated from any basic economic theory, and viewed solely as a *social mechanism* for dividing available man-hours of employment equitably among those qualified to do the work.

In the UAW proposal a "National Work-Week Adjustment Fund" would operate in the manner of an insurance or stabilization reserve. Under active business conditions a sizable sum would be expected to accumulate, and this would be drawn on later to pay compensation for the shorter hours worked during periods of recession. Presented in this way, the idea may be criticized as assuming that the unemployment problem exists only in times of poor business. Although it is true that the unemployment rate tends to advance as general business declines, the really

troublesome factor is the persistence of unduly high unemployment under conditions of prosperity. I doubt, therefore, whether the Adjustment Fund could function successfully as an equalizer between good and bad years.

However, the contributory mechanism proposed by the UAW may have an advantage of considerable value. It would offer an inducement to both employers and workers to accept the shorter work-year with concomitant hiring of additional employees, for the contribution made by each business firm to the general Fund would be returned to it only if it made the prescribed reduction in the work-year and the prescribed increase in its employment rolls. If a business failed to make these adjustments, either the employer would find himself paying larger hourly wages than others or the workers would be working more hours than others for the same annual pay. The payments to the Fund would not be an additional and separate burden on the employers, since the money would be received by the workers and hence would figure as the equivalent of a pay adjustment in the bargaining process.

TOWARD FOUR PER CENT UNEMPLOYMENT

To reduce the 1962 unemployment rate of 5.6 per cent, we might assume that the typical large establishment could, in either one or two steps, arrange a reduction of 3.2 per cent, or 64 hours, in the work-year and simultaneously enlarge its work-force by 3.2 per cent. This adjustment might conveniently be accomplished by adding eight working days to the annual vacations, and rotating them in such a way as to have the same number of people at work as before the change. (In other words, 3.2 per cent of the old force would be on vacation in successive eight-day periods, with their work being done by the added workers.) About 45 per cent of those gainfully employed are on the payrolls of establishments with 100 or more workers. A work-year reduction by smaller businesses should result in some increase in employment as well.

Let us now hazard the estimate that any assumed percentage reduction in the work-year, applied as above, will be 50 per cent effective in increasing employment. (This allows for the large number of self-

employed and the only partial applicability of the mechanism to various categories of establishments and workers.) Then, the work-year reduction of 3.2 per cent would be required to achieve a cut in unemployment from the 1962 rate of 5.6 per cent to the modest objective of 4 per cent.⁵ The 3.2 per cent figure approximates the annual rise in hourly wages suggested by the government's "guide-lines" as paralleling the nation's average increase in productivity. Theoretically, then, unemployment could be diminished to an acceptable figure in only one year, if the workers would accept their productivity benefits for that year wholly in the form of increased leisure.

To the extent that the adjustments are made in the form of longer paid vacations the hourly wage would not be changed. To the extent that the work-week itself is reduced the hourly wages would be proportionately advanced. But in any combination of the two arrangements both the weekly pay and the total annual pay would remain unchanged in the transition year, while the annual hours would be reduced 3.2 per cent, or about 64 hours.⁶

Let us repeat that it is essential for downward adjustments of the work-year to be made at the same time as upward adjustments in hourly wages, so that the former does not involve any reduction in take-home pay. An increase in paid vacations would be recognized as constituting an equivalent increase in the hourly wage. This is true, of course, for every type of "fringe benefit" worked out at the bargaining table.

If the 4 per cent unemployment rate can be established by this mechanism, it should be a relatively simple matter to maintain it by continuing the mechanism on a contracted scale. We assume that the

5. Resolution #78 adopted at the AFL-CIO annual convention in December, 1961 deplored "the tendency of some agencies of government to set a 4 per cent unemployment rate as a target for the economy," and insisted that a 2½ to 3 per cent rate be taken as the minimum figure acceptable.

6. *Example 1:* A worker now receives \$2.50 per hour for a 40-hour week. Under our proposal his work-week is reduced 3.2 per cent to 38.7 hours, his hourly pay is increased to \$2.58, and his annual vacation remains unchanged at two weeks. *Example 2:* Another worker takes his 3.2 per cent increase in the form of 64 added hours of paid vacation. His hourly wage will continue at \$2.50. In both cases the worker will continue to receive \$100 per week and \$5200 per year, but will work 1936 instead of 2000 hours per year.

required reductions in the work-year should range between ½ per cent and 1½ per cent annually, to offset productivity increases that are not counterbalanced by expanded per capita consumption of GNP. (It will be remembered that the long-term or historical rate of reduction in hours has been about ½ per cent per year, as shown by the figures for 1925-1960.⁷) If this estimate is correct, it will permit workers to receive more than one-half of future productivity benefits in higher wages and the rest in longer free time—for the most part in longer paid vacations.

THE STEEL AGREEMENT

The idea of dealing with the unemployment problem through longer vacations has received a surprising degree of support from sources otherwise in opposition. The *Wall Street Journal*, noted for its conservatism, has said: "There is considerable flexibility in the work span across the nation. More and more companies are setting up 'extended vacation' programs providing long-term employees with several months' vacation every five years or so. . . . Arrangements of this kind have the effect of cutting the work-week for those concerned. There may be various objections to such plans, depending on how they are obtained or how their costs affect the competitive positions of the companies. But where they are mutually agreeable and economically workable, they represent the gradual and selective approach which has characterized the long trend to less work and more leisure."

These sentiments lend encouragement to our claim that the flexible work-year is a practicable device for meeting present and future problems of unemployment. In all probability, longer paid vacations—ranging from a few extra days to a true sabbatical—may be used more conveniently than a small reduction in

7. Walter Heller, as chairman of the President's Council of Economic Advisers, has recognized this figure as not only characteristic of the past but as expectable for the future "through increasing holidays, vacations, and so forth." But he rejects "an arbitrary cut in the work-week to say 35 or 30 hours as a means of sharing the work." (*Commercial and Financial Chronicle*, May, 1963). Our proposal is closely in line with his view, except that more flexibility is allowed than his "approximately half per cent reduction in the average work-week."

the work-week, for the latter requires fitting in extra men at the work-bench while the former would rotate the added workers at the places temporarily left open by those on vacation.

The 1963 agreement between the steel companies and the United Steelworkers follows closely the general pattern we have been discussing. No direct increase in hourly wages is included. Instead, the chief gain for the workers consists of a new arrangement for "extended vacations" of thirteen weeks to be given to half of the hourly workers at five-year intervals. Since this means an increase of ten weeks above the present three, it is equivalent in cost to an added one-week vacation every year for *all* workers. On an over-all basis the settlement thus appears to amount to a 2 per cent decrease in annual hours with no change in annual pay, plus certain smaller "fringe benefits" in the area of insurance. Union officials have estimated that this vacation plan, when extended to the 487,000 hourly workers in the steel-making companies and their captive operations, will create about 20,000 new job opportunities. This calculation would translate an ultimate reduction of 4 per cent in annual hours, when all employees participate in the longer vacations, into an equivalent increase in the number employed.

A WORK-SHARING PROGRAM

The question of hours of work for *newly employed* people is very different from that for those already employed. The latter consider that they have a "vested interest" not only in their job but also in their current rate of earnings. They will accept short-time reductions in work, with consequent lower income, only if it is caused by the necessity for reducing output. This is an "economic reason"—in the words of the labor reports—over which they have no control and which they are powerless to resist. But they are by no means equally prepared to accept lower pay in order to provide additional jobs for others. It is for that reason that our proposal for flexible hours sets each reduction in the work-year at not more than the corresponding productivity-advance in wages.

The unemployed, however—including those just entering the labor force—have no such vested in-

terests and so can have no valid objection to any mechanism that will divide available man-hours of work equitably among all those qualified to do it. The adoption of this principle would require important changes in the methods of hiring new workers. In many occupations a new job would be assigned to "one and a fraction" of unemployed persons—for example, three people would share two jobs, so that each would be employed and paid for two-thirds of the full time.

Employment on a part-year basis is no new idea. It has particular merit, or the least drawback, when the periods not spent at work are devoted to additional general education or to retraining for new or wider skills. Two-persons-sharing-one-job has long been a feature of the educational system at Antioch College, one studying while the other is working, then vice-versa. A similar suggestion appeared in President Kennedy's Civil Rights Message of June 19, 1963, which proposed: "That the vocational education program be further amended to provide a work-study program for youth of high-school age, with federal funds helping their school or other local public agency to employ them part-time in order to enable and encourage them to complete their training." This limited the work-study program to teenagers who would be employed by public agencies. But the idea could and should have wider application.

In connection with the unemployed, it might also be pointed out that under present regulations a person employed part time does not draw unemployment benefits. In some situations this tends to make a lay-off financially preferable to part-time work. If a work-sharing program results in a fairly large amount of employment at comparatively small annual wages, it might be desirable to use a portion of the unemployment payments thus saved to provide supplemental benefits to these part-time workers.

The need for an imaginative and comprehensive program of work-sharing to apply especially to the currently unemployed, for whom some places would open up as a result of reductions in the work-year, is apparent when we analyze the Department of Labor breakdowns of unemployment by age groups, color, occupation, major industry divisions, and state and local marketing areas. (Some of these are also subdivided by sex.)

The highest rates of unemployment in each of these categories in 1962 were: Women 16 and 17 (16.8 per cent), Negroes, both sexes (11 per cent), laborers, except farm and mine (12.4 per cent), construction industry (12 per cent), West Virginia (10.9 per cent), Johnstown, Pa. (14.6 per cent).

In most of these categories the relative percentages have not changed much over the fifteen-year period from 1947 to 1962. The deplorable exception is the Negro, whose unemployment rate rose from 5.2 per cent to 11 per cent while that of whites was advancing only from 3.2 per cent to 4.9 per cent. As for teen-agers, while the proportion of unemployed hardly changed between 1947 and 1962—about one-fifth in both years—it is now moving upward so rapidly as to become really critical. It is generally agreed that greater efforts are needed to improve the work capacity of teen-agers, especially the high-school drop-outs, and of others ill-qualified for any but the lowest grades of employment (where jobs are decreasing in any case). Training programs will help ameliorate the problem, but they are too slow in the face of increased pressures. A considered work-sharing program is called for.

Work-sharing arrangements are not as convenient for employers, of course, as having one person for each job. But they may be fairly asked to make this significant contribution toward the solution of an increasingly desperate problem. They have other obligations as well, growing out of the replacement of workers by automatic mechanisms. The efforts that industry normally makes to find other employment for the displaced workers within or outside the enterprise should now be supplemented by payment of severance allowances and contributions toward programs of retraining for other occupations.

Despite the high current unemployment a considerable amount of overtime work is done in manufacturing plants, involving payment of premium wages for the extra hours. In March, 1963 the Secretary of Labor estimated that 7 per cent of the work in manufacturing was being done on overtime. The reasons include the lack of particular skills required for particular jobs as well as economies gained by using production facilities over longer periods. But undoubtedly some employers are unwilling to incur the various obligations attached to

the hiring of additional employees. A program for flexible hours of work should include the principle—to be recognized by employers and workers alike—that overtime work should be replaced by additional hirings to the fullest extent feasible. (The steel-labor agreement of June 1963 contains a provision aimed at cutting down company recourse to overtime.)

THE POWER TO CHOOSE AND TO CONTROL

The proposals in this paper have been presented solely within the framework of economic history and economic practicality. They involve only one choice of “values”: that it is much better for the nation’s social and moral health to have nearly everyone employed at shorter hours than to have the same amount of work done by fewer people working longer hours, with large numbers vainly seeking jobs. To repeat once more and finally the program is not offered as a substitute for full employment at a 40-hour week, or a 2000-hour year. If that is achievable by business expansion, with or without the stimulus of governmental fiscal policies, the flexible work-year will become unnecessary and inoperative *by its own terms*—to be held in reserve for the possible needs of the future. The judgment must be made whether the fiscal policies now being pursued or proposed can be relied on to reduce unemployment to an acceptable level without requiring a cut in the work-year.

To accomplish this, our per capita Gross National Product will have to grow at a more rapid rate than it perhaps ever has in time of peace. It is permissible to raise the question, in terms of values, of how important and desirable would be such a rate of expansion for our economy. In spite of the familiar disparagements of our “tail-fin affluence,” most of us are perfectly willing to accept more affluence for our country, provided 1) it continues to raise the living standards of all income groups in a reasonably equitable manner, and 2) it can be achieved through the normal processes of economic growth. But many serious-minded people are concerned about the probability that, instead of our controlling the rate of growth, it will control us and our national character. Is a 3 per cent or 4 per cent per capita annual rise in GNP so necessary to our welfare that, to achieve it

we must not only embark on uncharted seas of fiscal policy but also accept a moral imperative to consume and invest at ever accelerating rates?

The pressure to consume in order to aid the economy does not appear now as blatantly (or as excusably) as it did during the dark depression days of the early 1930's, when billboards carried the pathetic injunction: "BUY SOMETHING TODAY!" But it is at least implicit or latent in our present concern about our "lagging rate of growth." Are we heading for what Professor Gomberg of the Wharton School has called "a whirling-dervish economy"? Or shall we liken our economy to a highly hazardous kind of bicycle that must go faster all the time or else fall over? In the early days of this nation every able-bodied person had to work hard so that there might be enough for all to eat; have we progressed to the

point that now everyone must eat hard so that there might be enough work for all?

To aim at a growth dictated by such compulsions—including a fanciful compulsion to match the supposed growth rate of the Soviet Union—rather than at a rate consonant with our national character is to give up another part of our much-prized freedom. Our opulence should entitle us to more not fewer economic choices. From this viewpoint the principle of flexible hours has the advantage of adding a "relaxation element" to our economic arsenal. It would enable us to pause in our upward push without having to worry about crisis or disaster. If it is formulated with imagination and practicality, and if it is applied with skill, the flexible work-year should give us the power to control the unemployment rate instead of being controlled by it.

Appendix

A subject as important as the unemployment rate, with its heavy impact on political attitudes and governmental decisions, deserves intensive examination. Those who discuss it should understand how the rate is derived, what the chief factors are that move it up or down, what the effect is of a given change in each of these factors, and particularly what their interrelationships have been over many years in the past. As a result of economic research carried on in fairly recent years — for which J. W. Kendrick deserves major credit — we now have access to reasonably dependable annual figures running back seven decades and more. Our present study selected for period-to-period comparison the eight census years from 1890 through 1960, plus the midpoint year of 1925. We have added comparisons between 1957 and 1962, for it is in these last five years that the unemployment problem has become an economic and political issue of major consequence.

The average number of unemployed in any year can be derived arithmetically from four governing factors in

the following relationship: Number of Unemployed (U) equals Labor Force (F) minus Gross National Product (G) divided by: Average Product per Man-Hour (P) times Average Hours Worked in the Year (H). The equation, thus, is:

$$U = F - \frac{G}{P \times H}$$

For the year 1962 the calculation would be as follows in 1962 dollars:

$$U = 74,680m - \frac{\$554.9 \text{ bill.}}{\$3.79 \times 2070} = 74,680m - 70,670m = 4,010,000$$

While this equation is at bottom only an arithmetical identity, it tells us some important things about the factors that determine the unemployment rate. We can see at once that a rise in any one of three out of the four figures will increase the number of unemployed, unless offset by a corresponding advance in GNP. These three factors are Labor Force, Productivity, and Work-Year. The paradox here is that an advance in each of these

1. Basic Data

	1890	1900	1910	1920	1925	1930	1940	1950	1957	1960	1962
CLEVELAND TRUST CO. INDEX OF BUSINESS ACTIVITY (% plus or minus "normal")	+10	+3	+2	+2	+6	-8	-11	+6	+10	+8	+9
POPULATION (Millions)	63.06	76.09	92.41	106.5	115.8	123.2	132.1	151.7	171.3	180.7	186.6
POPULATION 14 AND OVER (Millions)	41.8	51.06	63.65	73.4	81.5	88.5	100.0	110.9	120.5	125.1	130.1
% 14 AND OVER	66.3	67.1	67.8	68.7	69.4	71.8	75.7	73.2	70.3	69.2	69.7
GNP IN 1929 DOLLARS (Billions)	26.20	38.20	56.50	73.31	90.53	95.13	121.0	187.4	235.5	260.0	275.2
GNP PER CAPITA*	627	748	885	999	1120	1075	1210	1689	1955	2079	2115
LABOR FORCE (Millions)	22.90	28.71	37.86	43.17	46.31	49.80	57.73	63.84	70.74	73.13	74.68
EMPLOYED (Millions)	22.33	27.29	35.71	41.50	44.51	45.46	49.61	60.49	67.80	69.20	70.67
UNEMPLOYED (Millions)	.57	1.42	2.15	1.67	1.80	4.34	8.12	3.35	2.94	3.93	4.01
WORK-YEAR (Hours)	2786	2716	2694	2584	2549	2478	2277	2132	2100	2080	2070
TOTAL MAN-HOURS WORKED (Billions)	62.3	75.5	96.3	107.2	113.4	112.6	113.0	128.9	142.4	143.9	146.6
PRODUCTIVITY (cents per hour)	42.1	50.6	58.7	68.4	79.8	84.5	107.1	145.4	165.6	180.7	187.7

*In all cases "per capita" refers to non-institutional population 14 and over

2. Derivation of Employment and Unemployment Percentages

ANNUAL HOURS NEEDED PER CAPITA	1490	1479	1508	1461	1404	1274	1130	1162	1181	1150	1126
ANNUAL HOURS WORKED PER WORKER	2786	2766	2694	2584	2549	2478	2277	2132	2100	2080	2070
WORKERS NEEDED PER CAPITA	.534	.534	.561	.566	.550	.514	.496	.545	.562	.553	.543
LABOR FORCE PER CAPITA	.549	.563	.595	.588	.572	.563	.576	.574	.587	.584	.574
UNEMPLOYMENT PER CAPITA	.015	.029	.034	.022	.022	.049	.080	.030	.025	.031	.031
AS % OF LABOR FORCE: EMPLOYMENT	97.3	95.0	94.1	96.2	96.0	91.3	85.9	94.9	95.9	94.6	94.4
UNEMPLOYMENT	2.7	5.0	5.9	3.8	4.0	8.7	14.1	5.1	4.1	5.4	5.6

3. Percentage Changes by Decades

	1890 to 1900	1900 to 1910	1910 to 1920	1920 to 1930	1930 to 1940	1940 to 1950	1950 to 1960
GNP PER CAPITA	+19.3%	+18.2%	+12.9%	+ 7.9%	+12.0%	+39.6%	+23.1%
PRODUCTIVITY	+20.2	+16.0	+16.5	+23.5	+26.7	+34.6	+24.3
HOURS NEEDED PER CAPITA	- 0.8	+ 2.0	- 3.1	-12.6	-11.5	+ 2.9	- 1.0
WORK-YEAR	- 0.8	- 2.6	- 4.1	- 4.7	- 8.1	- 6.4	- 2.4
WORKERS NEEDED PER CAPITA	-	+ 4.3	+ 1.0	- 9.0	- 3.5	+ 9.8	+ 1.4
LABOR FORCE PER CAPITA	+ 2.4	+ 5.4	- 1.2	- 4.1	+ 2.3	- .4	+ 1.9
AS % OF LABOR FORCE: EMPLOYMENT	- 2.4	- 1.0	+ 2.2	- 5.0	- 5.9	+10.5	- .3
UNEMPLOYMENT	(+87)	(+25)	(-36)	(+123)	(+84)	(-64)	(+7)

4. Long-Term and Recent Percentage Changes

	35 Years	35 Years	Recent	Adjusted to 10-Year Basis		
	1890 to 1925	1925 to 1960	1957 to 1962	1890 to 1925	1925 to 1960	1957 to 1962
GNP PER CAPITA	+77.0%	+ 83.6%	+ 8.2%	+17.8%	+18.9%	+17.2%
PRODUCTIVITY	+89.6	+126.5	+13.4	+20.1	+26.3	+29.7
HOURS NEEDED PER CAPITA	- 6.6	- 18.1	- 4.7	- 2.0	- 5.0	- 9.6
WORK-YEAR	- 8.5	- 18.7	- 1.4	- 2.1	- 5.2	- 2.9
WORKERS NEEDED PER CAPITA	+ 2.1	+ 0.6	- 3.4	+ 0.6	+ 0.2	- 6.9
LABOR FORCE	+ 3.3	+ 2.1	- 2.2	+ 1.0	+ 0.6	- 4.5
AS % OF LABOR FORCE: EMPLOYMENT	- 1.4	- 1.5	- 1.2	- 0.4	- 0.4	- 2.4
UNEMPLOYMENT	(+48)	(+35)	(+37)	(+12)	(+9)	(+88)

SOURCES OF DATA For the years 1890 through 1950 our figures for GNP, Man-Hours, Persons Engaged (Employed), and others derived therefrom, are taken from J. W. Kendrick's monumental study, *Productivity Trends in the United States* (Princeton University Press, 1961). The "Non-Institutional Population 14 and over" is calculated from census figures, with deduction of 1 per cent for the estimated number in institutions.

For the years 1957-1962 the figures in the Manpower Report of the President (March, 1963) are used. There are some conceptual differences between these data and those calculated by Kendrick, but their effect is not material. We have estimated the Work-Year, and consequent total Man-Hours and Average Productivity, from partial data published.

The per capita figures are based on the "Non-Institutional Population 14 years and over," which we might term the "working-age population." The percentage figures for Labor Force, Employment, and Unemployment are best related to this "population"; for consistent arithmetical results it must then be used throughout. If total population figures had been used, the increase in per capita GNP would have been larger than that shown between 1910 and 1940, and smaller thereafter. Such changes, however, would not have affected the main indications from these data.

factors is theoretically favorable to the economic position of the nation, since it would contribute to the potential output. But if the actual output (or consumption) does not expand as required by the step-up in the three other factors, the result is inevitably an increase in the unemployment rate.

Conversely, decreases in the Labor Force, Productivity, or Hours will have a favorable effect on the unemployment level to the extent that they are not offset by increases in GNP.

The labor-force figures have two contradictory and therefore paradoxical characteristics. The first is the small variation in the percentage of population¹ in the labor force over the 72-year period studied. Strangely enough, the largest variations took place at the beginning of the period when the (estimated) participation rose from 54.8 per cent in 1890 to 59.4 per cent in 1910. In the past half-century the shifts in the composition of the labor force have been spectacular; yet the huge influx of women into employment has been offset almost exactly by the lowered percentage of teen-agers and older men at work.

On the other hand, we must emphasize the important effect on the unemployment ratio of minor variations in the participation rate. Between 1920 and 1930 the drop from 58.7 per cent to 56.3 per cent offset by almost one-half the decline in the actual employment percentage. Conversely, in the next ten years the shrinkage in workers needed was less than in the decade before, but there was a perverse rise in the labor-force rate, which contributed largely to the final unemployment figure of nearly 16 per cent! The recent comparison of 1962 against 1957 again shows a shrinkage in the labor-force ratio, which took up nearly half the slack caused by the fall in workers needed per capita.

The last fact has disquieting significance for the future. A portion of the decline in the labor-force rate was a surprising development, running counter to forecasts made by the U. S. Department of Labor. The expectations are now for a substantial increase in this ratio, owing out of the anticipated heavy influx of post-war babies into the labor force. Besides the "menace" of an expanding labor force for demographic reasons, we must be conscious of the risk of further adverse changes arising from purely arbitrary decisions of people over time now in the labor force. These numbers presently

¹The word "population," whenever used in this paper, means U.S. non-institutional population 14 years old and over. The labor-force ratio, or "participation rate," is calculated against this population segment; for consistent arithmetical results our "per capita" figures are based on the same total.

about 55 million men and women. It would not be difficult to imagine, say, 2 million of these deciding to declare themselves "unemployed and seeking work"—possibly for reasons related to unemployment insurance—thus adding 50 per cent to the unemployment total.

Possibilities such as this suggest strongly that any changes in the unemployment ratio be scrutinized carefully to see what extent they have been brought about by essentially arbitrary or inexplicable variations in the labor force. Such variations should be clearly spotlighted and their effect explained and minimized in public discussions of the unemployment problem. It would be a helpful development if monthly changes in the employment ratio—expressed as a percentage of population over 13—were given as much publicity as those in the unemployment ratio.

Between years of approximately similar business activity there has been a persistent tendency for productivity to increase faster than per capita production. This tendency appears to have accelerated somewhat in the second half of our 72-year period, as shown by the figures in the two 35-year comparisons. No doubt the step-up has been produced in part by increasing automation. The spread was especially wide in the past five years, during which productivity rose at the rate of about 29 per cent per annum, but per capita GNP expanded only about six-tenths as much. The only one of our periods since 1900 in which GNP rose somewhat faster than productivity was that from the low level of 1940 to the post-war prosperity of 1950.

Seemingly, the significant declines in the work-year were necessary in the past to prevent this disparity between productivity and product from creating a truly massive unemployment problem. Gerard Piel, publisher of *Scientific American*, made this point vividly in his paper, "Consumers of Abundance," published by the Center for the Study of Democratic Institutions, by saying: "If the sixty-hour week still prevailed, only 40 million workers would be needed to produce the 1961 national product, and some 27 million workers would be unemployed." But it is quite possible to argue, at least from principle, that it was the shorter work-week that produced the lower relative GNP than the other way around. If we keep the number of workers constant and reduce their working hours, the arithmetical consequence must be a smaller rise in total production than in output per hour. It is for this reason that most people are instinctively opposed to reducing hours below the lower

limit consonant with sufficient leisure. Such a reduction, they think, means accepting an unnecessarily lower level of production than the country is capable of; it means losing out in the international growth-rate sweepstakes; in short, it seems to be a counsel of defeatism.

Whether or not that argument from arithmetic would be valid for the future must—like almost all economic prescriptions—be at least partly a matter of opinion. But we can decide with some definiteness whether or not it applies to our *past* economic history. Did we reduce hours just to gain leisure, out of free choice electing to take only part of our productivity gains in higher GNP per capita? Could we readily have stepped up production at any time by keeping hours where they were, instead of cutting them as we did, or even by extending them to any figure we were willing to work out at the bargaining table? The economic evidence is strongly against this optimistic assumption. It is contradicted, basically, by the actual existence of more than frictional unemployment. For if not only the production but the *sale* of goods could be expanded at will by lengthening hours, it could similarly be expanded by taking on new workers and thus absorbing the unemployed. Increased production does indeed increase purchasing *power*, but it does not necessarily increase *actual* purchasing in an equivalent amount. In the American economy it is demand that creates supply, not supply that produces demand.

The rate of increase in demand is, of course, influenced by concurrent advances in productivity and by the number of hours worked and paid for. But it is influenced still more by many other factors. These include on the upward side: war and war preparations; economic booms, however initiated, and always characterized by larger than normal expansion in business debt; important

new products (such as the motor car after 1900), and intensive sales efforts.

Our figures show that it is only under conditions of above-normal business expansion that GNP has increased faster than productivity. This favorable relationship shows up strongly in the period between 1940 and 1950, and it continued for most years through 1957. Many of us had come to consider the growth rate of the post-war period as “normal” for our economy, and one which could be counted on to continue. This optimistic view disregarded the fact that it far exceeded our former rates of growth, and that it was the consequence mainly of the “catching-up” demand after World War II, of the Korean war, of the cold war, and of the unusually rapid expansion of plant capacity made possible by an increase of over \$400 billion in net private debt since 1945.

That the equilibrium established between productivity and GNP in 1951-1960 could not be easily continued appears only too clearly from the data for 1957-1962. The rate of productivity increase advanced, while the rise of GNP per capita fell back below the long-term average. These diverse movements produced a disconcerting rate of decline in *hours needed* per capita—approaching that shown in the unhappy comparisons of 1930 with 1920 and 1940 with 1930. This adverse development was offset in part by a moderate decline in the work-year—apparently stemming chiefly from lengthened vacations—but the shrinkage in workers needed (employed) per capita ran at the ten-year rate of nearly 7 per cent, close to the highest in our computations. But for the providential, and somewhat suspect, decline in the labor-force percentage—now reversed—the resultant growth in the unemployment rate might well have been regarded as critical.