

# CHRONIC UNDEREMPLOYMENT: A COMPARISON BETWEEN JAPAN AND THE UNITED STATES<sup>1</sup>

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There is an opinion held by many Japanese economists that Japan's remarkably low figures for total unemployment (see Table 1) conceal a serious, chronic underemployment problem which is not found among the more advanced Western countries.<sup>2</sup> It is the purpose of this article to examine this contention in some detail, for, if it is correct, it suggests that economic planning must assume the prevalence of the phenomenon and work toward its mitigation perhaps with methods somewhat different from those appropriate for employment problems in countries like the United States, Great Britain, and West Germany. But if it is not correct, or fully correct, such planning may be misdirected, and, at the worst, create a new problem rather than solve an existing one.

The first part of this study will be devoted to definitional questions. The

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<sup>1</sup> I am greatly indebted to Professor Kazushi Ohkawa for many stimulating discussions of the problems dealt with in this article and for valuable criticisms and suggestions. I also owe thanks to Professors Masao Hisatake, Kiyoshi Kojima, Helen Walker, and Yuzo Yamada for helpful comments, and to Mr. Tsuneo Nakauchi for assistance in the collection of statistical data. The presentation of the Japanese situation has suffered from my lack of Japanese language facility which has necessitated excessive reliance on sources written in English.

<sup>2</sup> The following quotations illustrate this point of view as well as opinions concerning the problem's nature and magnitude, and the evidence of its existence: "Unlike in Western countries the full employment in Japan is a deceptive pyramid; the thin top layer of satisfactorily or completely employed workers is supported by the huge structure of workers who are defectively employed." Hiromi Arisawa, "Labor Force and Employment in Japan" (Mimeographed paper presented at the Conference on Industrialism and Industrial Man, January 21, 1959, Tokyo), p. 26.

"Though the ratio of the unemployed in this country is only 1% on the basis of statistical data, it should not be overlooked the [sic] latent unemployment exists in a considerable number. The survey made by the Council of Unemployment Counter-Measure in 1954 reported the existence of 5,800,000 partially employed persons. According to the Labor Force Survey in the same year of 1954 there were 9,100,000 part-time employees (with less than 34 weekly working hours), most of whom were apparently in unsatisfactory employment conditions. According to a basic survey on the structure of employment, made by the Prime Minister's Office in 1956, of 22,270,000 non-unoccupied persons 11,420,000 persons were employed in household work, and of the gainfully employed, 3,290,000 persons were seeking other jobs or additional jobs. Even though these findings as such could not be hastily taken as statistical data on latent unemployment they do suggest that a considerably large part of employed persons are under inadequate and unsatisfactory employment conditions as surplus labor force." Ministry of Finance, *General Survey of the Japanese Economy*, September 1, 1957, Tokyo, p. 41.

"Especially serious is the employment situation which has special characteristics which distinguish it from the employment problem in such countries as England, America and Germany. While we have fully employed workers and fully unemployed workers, between these two extremes there is an enormous number of workers who are underemployed in different forms in agricultural and fishing industries as well as manufacturing industries, especially small and medium-size industries. They include casual day-laborers, workers who make

second section will attempt, on the basis of the limited information available, to test partially the hypothesis that Japan's underemployment problem is uniquely different qualitatively and quantitatively from that of advanced Western countries. The discussion will be confined to a limited comparison between Japan and the United States. No attempt will be made here to extend the analysis

Table 1 *Total Unemployment in Japan and the United States, 1950-1957*

Year	Number in thousands		Per Cent of Civilian Labor Force	
	U. S.	Japan	U. S.	Japan
1950	3,142	440	5.0	1.2
1951	1,879	390	3.0	1.1
1952	1,673	470	2.7	1.3
1953	1,602	450	2.5	1.5
1954	3,230	590	5.0	1.5
1955	2,654	680	4.0	1.6
1956	2,551	640	3.8	1.5
1957	2,936	530	4.3	1.2

Note: See below for comments on differences in statistical definitions of the labor force and total unemployment in Japan and the United States.

Sources: U.S. Bureau of Census; Labor Force Survey Report, Statistics Bureau, Prime Minister's Office.

sundry goods at their homes to supplement family incomes, family workers who help with family work, extremely low-paid workers, workers who cannot make a living from their occupations without finding some income in other jobs, part-time workers and so on...our unemployment figure is roughly 600,000 at present, but the under-employment figure is estimated as high as 6,500,000." Shichiro Matsui and Etsuji Sumiya, "The Background and Significance of the Economic Prosperity of 1955-56", *The Japan Christian Year Book*, Tokyo, 1957, p. 29.

"The statistics show complete unemployment of about 500,000 jobless against the labor force of some 43 million. But taken into account of workers employed in status of non-secured condition in firms and small enterprises, then more than 5 million may be given as disguised unemployment. Moreover, the labor force is swelling at an annual rate around a million; and the biggest problem facing the nation is to achieve full employment in the modern sense of the term." Keiichiro Hirata, "Foreign Investment to Japan," *Oriental Economist*, September 1958, p. 485.

Examples of Western references to aspects of the problem may be found in Solomon B. Levine, *Industrial Relations in Postwar Japan*, Urbana, Illinois, 1958, pp. 3-4, and in his "Labor Patterns and Trends", *The Annals of the American Academy of Political and Social Science*, Vol. 308, November 1956, p. 103. William W. Lockwood, *The Economic Development of Japan: 1868-1938*, Princeton, 1954, contains references to the prewar situation on pp. 463-4, 478. Jerome B. Cohen has brief mention of the "oversupply of family farm labor" and related problems in *Economic Problems of Free Japan*, Princeton University Center of International Studies Memorandum No. 2, Princeton, Sept. 22, 1952, pp. 12 and 14.

The issue, itself, is a highly controversial one in Japan, and some Japanese economists have expressed strong doubts concerning both the uniqueness and severity of the problem of underemployment in Japan. Within the Japanese government, the Economic Planning Agency has recently taken a conservative position with respect to estimates of underemployment (See Economic Planning Agency, *New Long-Range Economic Plan of Japan: 1958-1962*, Tokyo, 1957, esp. p. 139). Professor Shigeto Tsuru's estimate, discussed below, is considerably less than those cited above. For an expression of doubt concerning the existence in Japan of a significant amount of zero marginal productivity disguised unemployed, see Kazushi Ohkawa, "Economic Growth and Agriculture," *The Annals of the Hitotsubashi Academy*, Vol. VII, No. 1, October 1956.

to other countries or to deal with the causes and effects of underemployment. Following a brief digression on theoretical criticisms of the concept of disguised unemployment, some tentative conclusions will be presented.

### I. *Definitions of Terms*

In this study, the term "chronic underemployment" will be used to describe a secular underutilization of the available labor time of those technically classed in the employed civilian labor force and also of those who are not normally counted in the civilian labor force either as employed or totally unemployed. This definition is intended to exclude seasonal and cyclical underemployment, inadequate use of basic skills, voluntary part-time employment, and potential underemployment.<sup>3</sup> These latter situations constitute another group of economic phenomena requiring separate analyses appropriate to their character.

The problem of dealing with this topic is greatly complicated by the proliferation of terms used to describe substantially the same phenomena and by the different meanings occasionally attached to the same term. In Japan, such expressions as "disguised unemployment", "latent unemployment", "underemployment", and "defective employment" are sometimes used almost synonymously and at other times distinctions are made among them.<sup>4</sup> The concept of disguised unemployment, both because of its popularity and its ambiguous use, especially requires detailed comment in order to avoid misunderstandings in the ensuing discussion.

<sup>3</sup> The term "potential underemployment" is used here in the sense of the labor time that could be released through technological change including capital expansion. Cf. Chiang Hsieh, "Underemployment in Asia", *International Labour Review*, June 1952; and International Labour Office, *Measurement of Underemployment* (Report prepared for the Ninth International Conference of Labour Statisticians, April-May 1957), Geneva, 1957, esp. p. 86.

<sup>4</sup> Cf. fn. 2, p. 1 and Professor Tsuru's analysis described below. In Japanese, both "latent unemployment" and "disguised unemployment" are often translated as "senzai-shitsugyo". Professor Tokutaro Yamanaka attributes the first use of the expression, "senzai-shitsugyo", to Dr. Teijiro Uyeda and his associates in a population study published in Tokyo during the early 1930's (Cf. Tokutaro Yamanaka, "On Latent Unemployment—An Interpretation as an Economic Problem", *The Annals of the Hitotsubashi Academy*, Vol. VI, No. 2, April 1956, pp. 3 and 7). The popularity of the concept in Japan may stem partly from concern over what is regarded as a highly misleading impression given by the strikingly low National Government total unemployment figures which are said to "disguise" a serious inadequate employment problem. It has been suggested that some feel that these figures must disguise the "reserve army of the unemployed" predicted by Marx. Others, aware of Japan's admittedly serious problems of poverty, appear to find it difficult psychologically to reconcile Japan's relatively low level of living with persistent achievement of statistical full employment. In this latter case, Western economists may have been at fault for implying that achievement of full employment meant (at least in the short run with a given labor force) a satisfactory general level of living. This may well be true in countries like the United States where productivity per employed person is comparatively high. But there is nothing inconsistent with full employment (even in the sense of every member of the labor force employed to the full extent of his abilities, say, 45 hours per week every week) and extreme poverty. This can easily happen in a country like Japan whose labor resources are abundant relative to capital and natural resources and average productivity is consequently low.

Before the war, Mrs. Joan Robinson defined disguised unemployment as the adoption of low productivity occupations by workers who have been dismissed from higher productivity occupations as a result of a decline in effective demand. It is clear from her discussion that Mrs. Robinson is primarily concerned with a cyclical rather than a secular or chronic phenomenon, and that the marginal productivity of the disguised unemployed may range all the way from zero to just under the marginal productivity of the job which was lost.<sup>5</sup> After the war, it became popular, especially with reference to the rural areas of underdeveloped countries, to use the term "disguised unemployment" to describe a chronic condition in which, assuming no change in techniques and only minor organizational adjustments, the withdrawal of a person from employment would not reduce aggregate output, i.e., the worker's marginal productivity equals zero. Professor Nurkse, who employed this type of definition, stated further that, "The term disguised unemployment is not applied to wage labour. It denotes a condition of family employment in peasant communities. A number of people are working on farms or small peasant plots, contributing virtually nothing to output, but subsisting on a share of their family's real income. There is no possibility of personal identification here, as there is in open industrial unemployment."<sup>6</sup> In Japan, the term has been broadened to include self-employed proprietors and unpaid family workers in the secondary and tertiary sectors, and some appear to have used it to refer to all types of workers receiving incomes below a certain level. In the latter case one might say the concept has become merely a synonym for poverty among the employed. In some cases, little attempt has evidently been made to distinguish between seasonal, cyclical, and chronic underemployment. Different definitions as well as criteria of measurement have led to estimates (also sometimes designated as "latent unemployment" and "underemployment") ranging from about 2 million to 10 million persons, or roughly 5% to 25% of the civilian labor force.

In this study, for the sake of convenience, the term "disguised unemployment" will be used to describe a chronically zero marginal productivity situation (in the Nurksean sense) among proprietors and unpaid family workers, regardless of economic sector. No distinction will be made in this case between full-time and part-time work as defined with reference to the number of hours, days, or weeks of work. Either could involve a hidden zero marginal productivity situation. Two half-time family workers could be thought of as one totally unemployed worker since the product lost by the withdrawal of either one could be offset, *cet. par.*, by full-time employment of the other.

It is important to note that disguised unemployment, in the sense employed here, is a subcategory of chronic underemployment as defined above. The other

<sup>5</sup> Joan Robinson, *Essays in the Theory of Employment* (2nd Edition), Oxford, 1947, pp. 60-74. The original edition was published in 1937 and the chapter on disguised unemployment was based on an earlier article published in the *Economic Journal*.

<sup>6</sup> Ragnar Nurkse, *Problems of Capital Formation in Underdeveloped Countries*, New York, 1955, p. 33.

categories will be chronic involuntary part-time employment among wage-earners and chronic involuntary underemployment or unemployment within the group classified as not in the labor force.<sup>7</sup>

## II. *Estimation of Chronic Underemployment in Japan and the United States*

Any statistical comparison between two countries with respect to chronic underemployment is fraught with almost insurmountable difficulties arising from differences in statistical definitions, methods of obtaining data, and amount and coverage of research. In the field under discussion, concepts and research techniques are still in a relatively early stage of development: Consequently, the analysis in this section must be regarded as highly tentative. Its objective will not be to provide accurate estimates of chronic underemployment in either Japan or the United States, but to test, within limitations of the available data, the view that Japan's chronic underemployment problem is uniquely different from the situation prevailing in the United States. The basic problem is to obtain estimates based on similar criteria and methods of measurement in both countries. With respect to Japan, a recent detailed study by Professor Tsuru provides a conservative estimate of what he terms "latent unemployment", but which corresponds to our definition of chronic underemployment.<sup>8</sup> Following a description of his criteria and results, an effort will be made to derive a minimum figure for the United States using, in so far as possible, similar conservative criteria and the limited data currently available to the author.

Tsuru's estimate grew out of a critical analysis of the statistical bases for government and private estimates of "latent unemployment" ranging from more than six million to ten million persons in recent years. He employs data provided by the detailed Cabinet Bureau of Statistics Labor Force Survey of March, 1955.<sup>9</sup> He points out that "latent unemployment" figures in Japan are derived from four overlapping groups: 1) those working less than 35 hours per week, 2) family workers, 3) independent proprietors, and 4) those who wish to work but who are not included in the labor force because they are not actively seeking work. After eliminating as much overlapping as possible and including primarily those

<sup>7</sup> The connotation of the term "underemployment" is admittedly being stretched in including this last group. Attempts in the United States to include members of the group in the statistics of the totally unemployed will be discussed below.

<sup>8</sup> Shigeto Tsuru, "Employment in Japan: Problems and Prospects," *Far Eastern Survey*, Vol. XXVI, No. 7, July 1957, pp. 97-103. This article was reprinted in Professor Tsuru's *Essays on Japanese Economy*, Tokyo, 1958. Subsequent page citations will be made with reference to the reprint.

<sup>9</sup> In estimating chronic underemployment, a key problem is finding data which reflect as little seasonal, cyclical, and irregular influence as possible. It is not clear from Tsuru's discussion to what extent seasonal and irregular influences have been taken into account in his estimates. From a cyclical standpoint, however, the choice of 1955 is a fairly good one for both the United States and Japan, since it represents neither the peak of a prosperity nor the pit of a depression.

who were available for fuller utilization of their time, he arrives at figures for "latent unemployment" for Japan in 1955, which may be summarized as follows:

1. Disguised Unemployed	
a. Farm proprietors	1,000,000
b. Non-farm proprietors	300,000
c. Family workers	720,000
	<hr/>
	2,020,000
2. Involuntary part-time wage-earners	120,000
3. Those not classified in the labor force but who desire full-time wage-earning employment	500,000
Total (6.3% of the civilian labor force plus non-labor force members in category 3)	<hr/> 2,640,000

A few words of comment on the derivation of these estimates are necessary. The farm proprietor group is said to represent the number who might be withdrawn from agriculture without diminishing the total product of the economy "provided necessary adjustments are made." In other words, they are "disguised unemployed" in the Nurksean sense. The estimate represents about 16% of all farm proprietors. The only justification given for this figure is that there is general agreement on it.<sup>10</sup> The estimate, as Tsuru indicates, however, is rather conservative compared with estimates of the Government Council on Employment Policy which ranged from about 3.5 to 4.2 million (including unpaid agricultural family workers and hired hands) from 1952 to 1954.<sup>11</sup>

The figure for non-farm proprietors appears to include mainly those who stated that they wished to change their occupation. The family worker and part-time wage-earner figures include only those who either stated that they wished to change their positions or that they were dissatisfied with them, though, they desired to continue in their present status. The group of those officially excluded from the labor force consists rather arbitrarily of about half of those who expressed a desire for full-time income-earning employment.

In the group labeled "disguised unemployed" are evidently included about 300,000 proprietors and 160,000 family workers who worked less than 35 hours per week and expressed dissatisfaction with their employment situation. Tsuru designates these groups, along with the involuntary part-time wage earners, as

<sup>10</sup> Various empirical studies have been made by Japanese economists in an effort to determine the existence and magnitude of disguised unemployment in Japan. Attempts to derive production functions for certain agricultural products (especially rice) have provided results indicating the existence of zero, or close to zero, marginal productivity of labor in certain cases. For example, See Keizo Tsuchiya "Production Function in Japanese Agriculture," *Records of Researches in the Faculty of Agriculture, University of Tokyo*, No. V (1954-1955), March 1956, pp. 28-9 (Abstract from *Nogyo Sogo Kenkyu*, Quarterly Journal of Agricultural Economy, No. 1, 1955).

<sup>11</sup> Tsuru, *Essays on Japanese Economy*, p. 88.

“under-employed”, thus treating underemployment as a subcategory of “latent employment” apparently overlapping with “disguised unemployment.”<sup>12</sup>

Let us, for the sake of argument, accept Tsuru’s estimate of “latent unemployment” as a reasonable 1955 figure for Japan for what we have defined as chronic underemployment. How does this compare with chronic underemployment in the United States if we apply similar criteria?

The problem of finding a suitable and comparable estimate of chronic underemployment in the United States is a formidable one. Let it be noted at the outset that while some Japanese economists assert that the United States has little or no problem of this sort, certain economists in the United States insist that quite the contrary is the case. Ducoff and Hagood state, for example, that “The identification of partial and disguised unemployment is significant in any type of economy under any national employment conditions. In the United States, where the general levels of productivity and living standards are high, the existence of a substantial amount of underemployment in some sectors of the economy stands in contrast to the accepted norms and evokes inquiry as to what can be done about it.”<sup>13</sup>

Table 2 *Civilian Labor Force of Japan and the United States<sup>1</sup>*  
by Status and Type of Employment, 1955  
(Persons 14 years of age and over in thousands)

Status	Agricultural Employment				Non-Agricultural Employment				Total			
	U. S.	%	Japan	%	U. S.	%	Japan	%	U. S.	%	Japan	%
Wage and Salary Workers	1,862	26.4	530	3.1	49,967	88.6	15,440	64.5	51,829	81.7	15,970	38.9
Self-employed	3,764	53.3	5,530	32.4	5,851	10.4	5,100	21.3	9,615	15.2	10,620	25.8
Family Workers <sup>2</sup>	1,434	20.3	11,090	64.5	546	1.0	3,410	14.2	1,980	3.1	14,500	35.3
Total	7,060	100.0	17,150	100.0	56,364	100.0	23,970	100.0	63,424	100.0	41,120	100.0

Notes: 1. U.S. figures are based on averages of data for April and October.

2. U.S. figures for family workers include only those who worked 15 hours or more during the survey week. Japanese family worker figures include those who worked 1 hour or more during the survey week. Consequently, the U.S. estimates are understated relative to the Japanese.

3. Components do not add up to totals because of rounding of intermediate figures. Percents are based on actual totals of components.

Sources: For U.S.; Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-57 as cited in *Statistical Abstract of the United States: 1957*, Washington, D. C., 1957, p. 212.

For Japan; *Year Book of Labor Statistics: 1955*, Division of Labor Statistics and Research, Ministry of Labor, Japan, October 1956

<sup>12</sup> *Ibid.*, pp. 86-7.

<sup>13</sup> Louis J. Ducoff and Margaret J. Hagood, “The Meaning and Measurement of Partial and Disguised Unemployment”, *The Measurement and Behavior of Unemployment* (National Bureau of Economic Research Report), Princeton, 1957, p. 163. Ducoff and Hagood do not make any clear-cut distinction between the concepts of underemployment and disguised unemployment, but regard them as among the “terms used to connote the several manifestations of inadequate employment opportunity or the underutilization of the actual or potential man-

Since disguised unemployment, which is one of our subcategories of underemployment, is supposed to lurk mainly among selfemployed and unpaid family workers, who may appear to be working full-time even when "unproductive", the total number of these workers is of some significance in making or evaluating underemployment estimates. The data in Table 2 show the situation in the United States as compared with Japan. As noted in the table, the data are not strictly comparable because of an understatement of the number of American family workers as compared with Japan. The relatively very high proportion of family and self-employed workers in Japan, so often stressed by economists, is obvious from the table. At the same time, these two groups in the United States constitute a large proportion of total agricultural employment and a considerably smaller, but not unappreciable, proportion of non-agricultural employment. Consequently, the possibility of considerable disguised unemployment, as well as other forms of underemployment, exists in the United States, especially in the rural areas.

In estimating chronic underemployment in the United States, we may begin with the data for part-time employment. In 1955, the annual average number of persons 14 years old and over working less than 35 hours per week, but counted as employed, was 10.33 million (15.7% of the civilian labor force). The figure includes the following groups: 1) voluntary part-time workers who prefer part-time work; 2) workers who usually work full time but who are temporarily working part time for non-economic reasons such as illness, vacation, inclement weather, and so on; 3) workers who usually work full time but who are temporarily working part time for economic reasons such as slack work, shortage of materials, plant and equipment repairs; and 4) workers who are regularly employed part time but who desire and would take full-time employment. They include both paid and unpaid workers in all sectors of the economy. Groups 3) and 4) are often referred to as "partially employed" or "partially unemployed." Following Bancroft, they may be labelled "economic part-time workers" and "involuntary part-time workers" respectively.<sup>14</sup> Group 4) may be considered as appropriate for inclusion in an estimate of chronic underemployment and appears to correspond roughly to Tsuru's group of part-time workers in Japan totaling 580,000 persons in 1955. In that same year, the annual

power resources." They divide the "inadequately employed" into two subgroups: (1) the underemployed who do not have a sufficient amount of work, and (2) the employed who get substandard returns per hour of work because of its low productivity (mainly self-employed unpaid family workers) or because they are employed at substandard wages". (*Ibid.*, p. 155). This implies a concept of disguised unemployment corresponding to the broader definitions in Japan and encompassing far more workers than the narrower zero marginal productivity concept.

<sup>14</sup> Cf. Gertrude Bancroft, "Current Unemployment Statistics of the Census Bureau and Some Alternatives", *The Measurement and Behavior of Unemployment* (National Bureau of Economic Research Report), Princeton, 1957, pp. 91-2. Albert Rees uses the term "involuntary part-time workers" to include group 3) as well as group 4). See his "The Meaning and Measurement of Full Employment," *The Measurement and Behavior of Unemployment*, (National Bureau of Economic Research Report), Princeton, 1957, pp. 21-22. Both Bancroft and Rees have excellent discussions of the measurement and significance of partial unemployment.



average of monthly estimates for this group in the United States was 1,060,000 workers of which 930,000 were non-agricultural and 130,000 were agricultural.<sup>15</sup>

It has been pointed out that the U. S. Census statistics on partial employment do not provide an adequate measure of underemployment among the self-employed, especially in the rural areas where the work is apt to be highly seasonal and data derived from a single census week may not reflect the true degree of chronic underemployment.<sup>16</sup> Slack work during some weeks may be balanced by excessively long hours during other weeks. The work pace from one hour to the next may vary greatly. Consequently, attempts are being made to devise more satisfactory methods of defining and measuring surplus manpower in America's agricultural areas. One criterion, also used in Japan, is the income level of the farm family. This, however, reflects not only the number of hours worked but the average productivity per hour as well. A low income level could mean full-time work with substandard returns per hour. This could be considered equivalent to part-time work with standard returns per hour, where the term "standard" means a level consistent with the type of occupation and degree of capacity of the worker. On the other hand, a low income in comparison with other families might mean full-time work with returns per hour which are low in the absolute sense but which merely reflect a low productivity type of work and or a low individual capacity. Hence, by itself, income level is an imperfect criterion of underemployment. Moreover, the choice of the critical income level below which a farm family is classified as underemployed is extraordinarily difficult.<sup>17</sup> Where an urban minimum wage standard is used, there arise complex questions of urban-rural real income comparisons which it is beyond the scope of this paper to discuss. In spite of the limitations mentioned, substandard annual income is apparently popular among American research workers as a criterion of underemployment in rural areas. Ducoff and Hagood reported that the 1950 U. S. Census of Agriculture showed "1,622,000 farm-operator families with heads between the ages of twenty-five and sixty-five which had total family

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<sup>15</sup> Bureau of the Census, *Current Population Reports*, Series P-50, No. 67, March 1956. The averages are based on nine months only, the data for January, March, and April not being available. For those who feel "economic part-time workers" should also be included, the figures for 1955 for this group are 918,000 non-agricultural workers and 147,000 agricultural workers. For a convenient summary of data for the period 1948-1954, see Bancroft, *op. cit.*, pp. 111-118. It should be noted that in May 1955, the Census Bureau introduced a slightly different method of classifying those who usually work part time. The two component groups were redesignated "worked part time for economic reasons" and "worked part time for other reasons". According to Census Bureau explanations, the first of these component groups is essentially the same as the group we have designated "involuntary part-time workers"

<sup>16</sup> Cf. Ducoff and Hagood, *op. cit.*, p. 158.

<sup>17</sup> A similar problem arises when productivity is used as a criterion. Professor Ohkawa, after noting the continuous nature of both wage and productivity differentials in the Japanese economy, observed that..."if we take up a representative definition of disguised unemployment according to which the marginal productivity of labor is lower than that of normal employment, we are quite puzzled to find that there is no normal level of labor productivity with which the so-called lower productivity of labor can be compared." (Kazushi Ohkawa, "The Differential Employment Structure of Japan," *The Annals of the Hitotsubashi Academy*, Vol. IX, No. 2, April 1959, p. 217)

incomes of less than \$2,000".<sup>18</sup> In their comment on this fact, they declared that, "We have no information on the annual input of labor by these families, but it is believed that they averaged considerably less than full years of work and that the returns per hour averaged lower than the statutory minimum for most nonagricultural wage workers. Data on their land, machinery, livestock, etc., indicate that insufficient physical and capital resources were available for adequate employment of the manpower."<sup>19</sup>

How many members of these families might be considered disguised unemployed in the sense of zero marginal productivity is impossible to say. The question at the moment is whether or not we can derive from data of this type a reasonably conservative estimate which can be compared with Japanese estimates of agricultural underemployment based on similar criteria. It may be argued that \$2,000 is too high a critical level, but even if one takes an annual family personal income of \$1,000 as the critical level, one still finds 597,000 farm-operator families of two or more related persons which received less than this amount in 1954, the most recent year for which data were available to the writer.<sup>20</sup> Combining this information with the Ducoff and Hagood observations and the estimate of about 130,000 involuntary part-time agricultural workers, it might not be unreasonable to consider at least 300,000 U.S. agricultural workers (about 4.5% of total agricultural employment in 1955) as underemployed. No

<sup>18</sup> Evidently the income figure includes an estimate of the value of income in kind. With respect to money income, 50.7% of U. S. rural farm families (about 2,800,000) received less than \$2,000 in 1950; the corresponding figure for 1955 was 48% (about 2,500,000 families) according to Bureau of Census estimates. In evaluating these figures one should be cautioned against attempting to compare dollar incomes with yen incomes on the basis of the foreign exchange rate of ¥360=\$1. There is strong evidence that the consumer purchasing power of the yen is much greater than this rate implies. (See, for example, Tsunehiko Watanabe and Ryutaro Komiya, "Findings from Price Comparisons Principally Japan vs. the United States," *Weltwirtschaftliches Archiv*, Band 81, Heft 1, 1958, p. 83.)

<sup>19</sup> Ducoff and Hagood, *op. cit.*, p. 159. They give as the source of their information, *Long Range Farm Programs*, Technical Studies by the Department of Agriculture Relating to Selected Farm Price Support Proposals for the House of Representatives, Committee on Agriculture, 83d Congress 2d session, 1954, p. 160.

<sup>20</sup> The personal income figure is before taxes and includes certain imputed items such as net rental value of owner-occupied dwellings, wages in kind, the value of food and fuel produced and consumed on the farm, and imputed interest. These families constituted about 11.7% of the total number (5,100,000) of farm-operator families, yet received only 2.2% of the total income. Average annual income per family in this group was about \$680. The data are taken from Selma F. Goldsmith, "Income Distribution in the United States, 1952-55," *Survey of Current Business*, June, 1956, p. 15. Ducoff and Hagood also mention as evidence of U.S. rural underemployment some special area studies which attempted to measure the number of farm workers, living in low-income rural sections of Kentucky and Oklahoma, who desired different or additional employment. In these areas it is interesting to note that only a small per cent of the family heads who were considered underemployed on the basis of a substandard amount of time worked, indicated willingness to accept out-of-area non-farm employment; but a much greater proportion were interested in extra employment in non-agricultural jobs within their own local areas. Ducoff and Hagood caution that "questions on availability are not always very meaningful or realistic in research projects of this type when the interviewer cannot offer anything in the way of a concrete job." They also note the ineffectual recommendation of American researchers that more industry be established in surplus labor rural areas. (Ducoff and Hagood, *op. cit.*, pp. 161-3). Japan may have succeeded better than the United States in providing rural labor, which would otherwise be underemployed on the farm, with supplementary or full-time non-agricultural employment opportunities.

effort will be made in the case of this group to distinguish between zero and positive marginal productivity labor.

Because of lack of available data, no attempt will be made to estimate under-employment among non-agricultural proprietors and unpaid family workers beyond what is already included in the previous figure of 930,000 involuntary non-agricultural part-time workers.<sup>21</sup>

With respect to Tsuru's third category of those who are not counted in the labor force but who desire employment, the United States, like Japan, has a recognized problem. Obtaining a comparable estimate of this group for the United States is greatly complicated by a difference between the Japanese and United States statistical definitions of total unemployment. The Japanese definition confines the totally unemployed strictly to "able persons...who wanted to work and sought for work actively" during the survey week, exclusive of employees not at work but who "received or are expected to receive payment" and self-employed who were not at work "provided their employees or unpaid family workers engaged in their business during the survey week."<sup>22</sup> The U. S. Bureau of Census definition adds to non-jobholders who were actively seeking work, an "inactive" group of persons who desired employment but who were not actively seeking work during the survey week because of 1) temporary disability or illness, 2) an indefinite or more than 30-day layoff,<sup>23</sup> or 3) a belief that no work was available in the community or in a line suitable to the training of the person. These people are considered as not in the labor force in Japan and it is from this group that Tsuru draws a considerable portion of the "latent unemployed" in Japan. In other words, it would appear that about 18.5 per cent of Japanese "latent unemployment" (as estimated by Tsuru) would be treated as part of total unemployment in the United States. However, there is considerable doubt concerning the extent to which persons in this group are actually included in the United States figures

<sup>21</sup> As Table 2 indicates, the United States has an appreciable number of non-agricultural self-employed workers. About 40% of these are found in wholesale and retail trade, 18% in contract construction, and 27% in the services area. (Department of Commerce data for 1955 and 1956, cited in *The Economic Almanac: 1958*, National Industrial Conference Board, New York, 1958, p. 290). A study of retail trade showed almost 1,500,000 individual proprietorships and partnerships (about 86% of total retail establishments). About 40% of this group had no paid employees and roughly 70% employed three or less. Figures for sales indicate small-scale operation and low net income for a high proportion of the group. (Cf. Bureau of Census data for 1954 cited in *The Economic Almanac: 1958*, p. 850). Even in manufacturing, a large proportion of establishments are sole proprietorships and partnerships (A Department of Commerce survey in 1947 showed 69%. Cf. *The Economic Almanac: 1958*, p. 271). Many are small scale. According to Bureau of Census data, in 1954 about two-thirds of all U. S. manufacturing firms employed fewer than 20 workers (*The Economic Almanac: 1958*, pp. 797-8).

The number of unpaid non-agricultural family workers is relatively small in the United States compared with Japan. The difference, as previously noted, may be due partly to the exclusion by U.S. statisticians of those unpaid family workers who work less than 15 hours per week.

<sup>22</sup> *Year Book of Labor Statistics: 1955*, Division of Labor Statistics and Research, Ministry of Labor, Japan, September 1956, p. 9.

<sup>23</sup> Since 1957, persons on layoff who had definite instructions to return to work within 30 days of the date of layoff have also been included in the totally unemployed

for total unemployment. According to Miss Gertrude Bancroft of the Bureau of Census, it was suspected some years ago that the personal nature of the interview question on reasons for not looking for work either caused interviewers to refrain from asking it to avoid irritating the respondent, or caused respondents to give false reasons. Consequently, in 1945, a "revised schedule eliminated the question on the reason for not looking for work, but the concept of unemployment remained the same. The interviewers were instructed to classify as among those 'looking for work' anyone who on the basis of information furnished, appeared to meet the definition of inactive unemployed."<sup>24</sup>

In 1944 and 1945, prior to the change in procedure, those reported as "inactively unemployed" constituted, on the average, 46% of the totally unemployed. Most of this group (an average of about 72%) gave temporary illness as their reason for not actively seeking work.<sup>25</sup> The existence of the war at the time probably exaggerated the percentage of "inactive unemployed" because of fear of appearing unpatriotic if one was not seeking employment for some acceptable reason, and because of the relatively low number of "active" jobless who, in such a period, were unable to find work.<sup>26</sup> For these reasons and because of the later procedural change, such data cannot be used in our analysis. In the face of absence of any reliable estimates of the proportion of "inactive unemployed" currently included in total unemployment figures, we shall base our estimate on special surveys of those officially not in the labor force. These show the presence of large numbers of "inactive unemployed" who escaped inclusion in the figures for the totally unemployed.<sup>27</sup>

In a Bureau of Census survey in June, 1947, of persons officially not in the labor force, 2.89 million said they wanted a job. Closer questioning on the reasons for not seeking work showed that 2.33 million actually had little enthusiasm for wage-earning work and 563,000 (including about 446,000 who fell within the census definition of totally unemployed) appeared to show a definite labor force attachment.<sup>28</sup> Another survey in June, 1950, first isolated those officially not in the labor force who had, since the first of the preceding month, looked for work. Among these, 536,000 (about 1.2 per cent of those not in the labor force) stated they could take a job and wanted a full-time job.<sup>29</sup>

<sup>24</sup> Bancroft, *op. cit.*, pp. 71-2.

<sup>25</sup> *Ibid.*, pp. 100-1.

<sup>26</sup> *Ibid.*, pp. 71-2.

<sup>27</sup> To the extent that some of the jobless not actively seeking work are still included in the totally unemployed in the United States, the total unemployment rate in Japan is understated relative to that in the United States. A further source of understatement of unemployment as a percent of the total labor force lies in the different definitions of the labor force in the two countries. As noted above, the Japanese definition of family workers includes those working 1 to 14 hours during the survey week. These are excluded in the United States. This relative overstatement of the Japanese labor force makes a given volume of total unemployment a smaller per cent of the total labor force than would be the case using United States criteria. It follows that part of the disparity between the total unemployment rates of Japan and the United States is merely a statistical illusion.

<sup>28</sup> Bancroft, *op. cit.*, pp. 79, 106.

<sup>29</sup> *Ibid.*, pp. 79, 107.

Professor Wilcock provides additional evidence. He considers the group with which we are concerned as a category of "secondary workers" whom he defines as "those who have had, are having, or are about to have a temporary labor force attachment."<sup>30</sup> Among the "inactive unemployed" he concentrates his attention on those who are not actively seeking work because they believe no suitable jobs are available. He cites a case study made in 1951 in St. Paul, Minnesota, in which it was estimated that 9 per cent of those not classified in the labor force under census definitions desired work but were not actively seeking it because of belief in lack of availability of a job of a desired type or for which they had adequate training; 33 per cent, including those who required special conditions such as part-time work, considered themselves as currently available; 42 per cent answered "yes" to the question: "Do you ever think you would like to take a job?"<sup>31</sup>

How can we arrive at an estimate of this group in the United States roughly comparable to Professor Tsuru's estimate for Japan? In 1955, the number of non-labor force persons in Japan who expressed a desire for wage-earning employment was about 13 per cent of the total number of non-labor force persons. Of this number, Tsuru accepted 20 per cent (half of those who wished full-time employment) or 2.6 per cent of the total number of non-labor force persons. If we should make the heroic assumption that the St. Paul study was roughly typical of the nation in 1955 and that the 9 per cent figure consisted mainly of those available for full-time employment (since the 33 per cent apparently included those who desired part-time work), by following Tsuru in accepting half of this group we would arrive at a figure of 4.5 per cent of the American non-labor force, or almost 2,200,000 persons. In view of the limitations of the data, however, it would be safer to assume a lower percentage. Perhaps we can be reasonably confident that the figure comparable to the Japanese estimate is at least 1 per cent of those not in the labor force, excluding persons in school, or about 400,000 persons in 1955. This estimate is supported by the results of the special Bureau of Census surveys described above. Its conservatism is enhanced to the extent that the total unemployment figures also include members of this group who should properly be treated as underemployed for purposes of comparison with Tsuru's data.

Our results, representing a "minimum estimate"<sup>32</sup> of chronic underemploy-

<sup>30</sup> Richard C. Wilcock, "The Secondary Labor Force and the Measurement of Unemployment", *The Measurement and Behavior of Unemployment* (National Bureau of Economic Research Report), Princeton, 1957, p. 168.

<sup>31</sup> *Ibid.*, pp. 197-201. A study of Columbus, Ohio, using somewhat different criteria, showed similar results. Wilcock notes that both cities are large with a variety of employment opportunities and that the studies took place at a time when the demand for labor was high. He warns, however, that, "Exaggeration may have resulted from the wording of questions, the respondents answering within a broader time reference than the census week, and the phenomenon.... that some people about to enter the labor force may be matched by others about to leave." (*Ibid.*, p. 201). The same warning may well apply to similar Japanese statistics.

<sup>32</sup> The term, "minimum estimate", is used here in the sense of a figure which we can be reasonably confident understates the actual situation.

ment in the United States for 1955, may now be summarized:

1. Non-agricultural involuntary part-time workers	930,000
2. Agricultural underemployed	300,000
3. Those not classified in the labor force but who desire full-time wage-earning employment	400,000
Total (2.5% of the civilian labor force plus non- labor force members in category 3)	<hr/> 1,630,000

The analysis suggests that while the problem of chronic underemployment may be more serious in Japan than in the United States, Japan is probably not as uniquely different from the United States in this respect as some have apparently assumed. Further research may well indicate that, even in terms of relatively conservative criteria, the problem of chronic underemployment in America is considerably more serious than the minimum estimate tentatively suggested in the preceding discussion.<sup>33</sup>

### III. *A Theoretical Note on Disguised Unemployment*

There is little dispute concerning the presence of underemployment, in the sense of positive marginal productivity involuntary part-time workers, in all countries. The existence of zero marginal productivity disguised unemployment

<sup>33</sup> While Japan may not be quite so unique as is sometimes thought with respect to what we have called "chronic underemployment," many scholars have noted at least one important respect in which Japan's employment situation differs significantly from that in the United States. This is the underutilization of full-time wage earners, especially in non-agricultural industries, growing out of the two-way commitment between the employer and his "regular" employees. The employee under this system is normally hired immediately after graduation from school and expects to remain with the firm for the rest of his life. It is not "proper" for him to leave, even to take a better job, without the full concurrence of his employer. The employer is expected to treat him as a member of the company "family" and to discharge him only under extreme circumstances. Under such a system, underutilization of labor, both from the standpoint of time and ability, can readily develop within a given firm. The unneeded or unsatisfactory worker is retained, sometimes in an innocuous position created especially to enable him to maintain a proper status within the company. A certain amount of this, of course, exists in Western countries, but in Japan it appears to be formalized into an open system where it is considered the acceptable and expected procedure. Moreover, it has been argued that the system is not the result of poor employment opportunities in Japan as reflected in "latent unemployment" figures, but arises from the basic ancient "hierarchical-kinship" social structure of Japan with roots deep in Confucian philosophy.

The underutilization of labor which may arise through this system could well be termed a kind of chronic "disguised unemployment", but it can occur even among wage and salary earners of high income status working in large and respected firms. It may seem curious that, while disguised unemployment among family workers and the underutilization of wage labor due to the permanent commitment system both represent surplus labor problems with similar impact on the national output, the first is deplored while the second is generally approved. It would appear in the second case that social custom takes precedence over economic rationality, contrary to Western ideology, but it may well be that the West has over-emphasized economic efficiency at the expense of other important human values. (For a fuller discussion of this problem, see James G. Abegglen, *The Japanese Factory: Aspects of Its Social Organization*, Glencoe, Illinois, 1958; Solomon B. Levine, *op. cit.*, esp. chap. II; Susumu Takamiya, "Management and Labor in Japanese Enterprise," mimeographed paper presented at the Conference on Industrialism and Industrial Man, January 22, 1959, Tokyo).

in significant numbers or even at all, however, has been questioned recently on both theoretical and empirical grounds by a number of economists. Since their criticisms apply to the above analyses for both Japan and the United States, a brief discussion of the question may be appropriate at this point. The discussion will be confined, however to the theoretical validity of the concept alone. One of the foremost critics of the concept, Professor Jacob Viner, expressed his doubts that a significant amount of zero marginal productivity labor could be established *a priori* as a chronic phenomenon. "As far as agriculture is concerned," he said, "I find it impossible to conceive of a farm of any kind on which, other factors of production being held constant in quantity, and even in form as well, it would not be possible, by known methods, to obtain some addition to the crop by using additional labor in more careful selection and planting of the seed, more intensive weeding, cultivation, thinning, and mulching, more painstaking harvesting, gleaning, and cleaning of the crop."<sup>34</sup> He added that, "Unless one assumes non-economic motivation on the part of employers, there is difficulty also in conceiving why they should hire at any wage-rate additional units of labor beyond the point at which they know the labor will add less in value to the product than the wage-cost, to say nothing of the case where the labor will add nothing to and may even subtract from the product."<sup>35</sup> He implied that while the employer might be ignorant of the facts, he was at least as well-informed as the speculative economist. With respect to the self-employed, he argued that where mobility of labor exists, the self-employed should not chronically receive less than hired labor, i.e., their marginal productivity should not persistently equal zero or less.<sup>36</sup> Viner devoted relatively little attention to the numerous empirical studies purporting to show the existence of large amounts of disguised unemployment. He arrived at a rather tentative conclusion that "there is little or nothing in all the phenomena designated as 'disguised unemployment', as 'hidden unemployment', or as 'underemployment' which in so far as they constitute genuine social problems would not be adequately taken into account by competent, informed, and comprehensive analysis of the phenomenon of low productivity of *employed* labor, its causes, its true extent, and its possible remedies. What would not belong to such analysis would, in comparison, probably be little more than economists' play-things, whose cure, if they were evils, would make only a negligible contribution to the cure of sick or stagnant national economies."<sup>37</sup>

Viner's doubts about the empirical existence of a substantial amount of chronically zero marginal productivity labor may be valid, but his *a priori* reasons are open to question. The argument that the self-employed probably have a positive marginal productivity because they are likely to earn at least as much as

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<sup>34</sup> Jacob Viner, "Some Reflections on the Concept of Disguised Unemployment," *Indian Journal of Economics*, Vol. XXXVIII, No. 148, July 1957, p. 18.

<sup>35</sup> *Ibid.*, p. 18.

<sup>36</sup> *Ibid.*, pp. 18-19.

<sup>37</sup> *Ibid.*, p. 23.

hired labor is qualified by the assumptions of economic motivation of employers and adequate mobility of labor. But it is precisely these classical assumptions which are of doubtful realism, especially in the rural areas of countries where disguised unemployment is presumed to exist. The classical argument might be put this way. Assume a situation in which any one member of a family group of unpaid workers has zero marginal productivity and each receives in terms of real income an amount in excess of the rate for hired labor in the local area. It would still be economically logical for one worker to take a job as a hired laborer. Giving up the farm work would subtract nothing from the farm income and the hired labor income would, no matter how small, be a net gain for the family as a whole. If, at the current hired-labor rate, more workers sought jobs than were demanded, the rate would fall, and, if necessary, continue to fall until it reached zero, in which case it would accurately reflect the fact that disguised unemployment existed. But since, in reality, hired labor receives a positive wage, it is argued that disguised unemployment probably does not exist.

It must be admitted that a great deal of supplementary work is sought and obtained by labor which would be underemployed by work on the family farm alone. But to solve fully the underemployment problem requires sufficient job opportunities and knowledge of these opportunities. It is conceivable that a positive wage for hired labor might exist in an area and yet the wage-earning jobs available in the area be chronically less than the number of disguised unemployed. In the first place, it is doubtful that a zero wage under any circumstances would persistently occur since it really means a gift of labor, not a wage. Secondly, there is a certain amount of institutional stickiness in wages, aided and abetted by labor unions or government legislation in some countries, and fostered by social "just wage" customs found especially in the more isolated rural areas. With respect to job openings outside an area, mobility becomes even more of a problem due to well-known factors such as lack of knowledge of opportunities. Some outflow is always in progress, but in densely-populated areas where population is growing rapidly, a situation can readily be imagined in which disguised unemployment persists over a long period and yet the wages of hired workers in general remain positive and may even increase. It may be argued that in the long run the wage rate will approximate marginal productivity; but the concept of long-run equilibrium used in this case is a theoretical device, highly useful in isolating the ultimate effects of certain causal factors, but not intended as a description of what the actual situation is or even will be.

With respect to Viner's comment on the ever-present possibility of adding to the output of the farm by performing a little more work no matter how many people are living on it, it is not difficult to conceive of situations in which the extra income would be so small that it would simply not be regarded as worth the extra effort.

In general then, Viner's *a priori* arguments against the existence of disguised unemployment, if I have correctly understood them, leave much to be desired. But



even granting the theoretical possibility of disguised unemployment, the basic question still remains concerning its empirical existence in the strict sense of zero marginal productivity. A detailed discussion of the various studies made in this connection, however, is beyond the scope of this article. The problem of accurate measurement is extraordinarily difficult as many have pointed out and requires careful consideration of the time period to be chosen for measuring productivity, the leisure-time preference of the family which is a matter of work-pace as well as hours or days of labor, proper checking and evaluation of purely subjective job-preference statements which often rest on implicit conditions, and sufficient adherence to the *cet. par.* assumptions of classical marginal productivity theory. Until more acceptable methods of measurement are found, it would seem advisable to accept all estimates with caution and avoid conclusions more precise than the data on which they rest.

#### IV. *Tentative Conclusions*

Throughout the preceding discussion, the limitations of the evidence for chronic underemployment in both Japan and the United States have been repeatedly emphasized. Consequently any statements based on our analysis must necessarily be preliminary and tentative. With this caution in mind, the following conclusions are presented:

First, Japan's statistics for total employment and unemployment "conceal" the existence of a considerable amount of chronic underemployment; but Japan is not uniquely different in this respect from the United States where a similar problem also exists.

Secondly, statistical methods (and perhaps concepts as well) are still not adequate to provide satisfactory estimates of underemployment in either Japan or the United States. Consequently, we cannot say with certainty that Japan's underemployment problem (according to our definitions) is more serious than that of the United States. It is the writer's present opinion that it probably is more serious, but that the degree of difference between Japan and the United States has been frequently exaggerated.

Finally, to say that Japan's underemployment problem is not so unique nor so severe as some have claimed is not to argue that Japan is well off. She is confronted with the acute and ancient problem of providing a rising level of living for a growing population with relatively limited natural and capital resources. It is conceivable that Japan might solve the problem of underemployment and still be poor. It is just as possible for a country like the United States to have a substantial amount of underemployment and still enjoy the highest per capita real income in the world.