DEVELOPMENT STUDIES PROJECT II

Collected Statistical Papers

Volume II

Wage Data 1988-94

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Wage Data, 1988-94

List of Papers

Statistical Papers Prepared by DSP Consultants for the Biro Pusat Statistik, Jakarta

Vol	SP #	Author	Title	DSP #	Date
I			**Labor Force and Wages, 1987 – 1988**		
	1	Korns, Alex	Distinguishing Signal from Noise in Labor Force Data for Indonesia	5	Nov 87
	2	Korns, Alex	How Fast is the Labor Force Growing in Indonesia?	5–P	Nov 87
	3	Korns, Alex	Projecting Labor Force Participation Rates: 1986–2000	15	Mar 88
	5	Korns, Alex	Wage Data at BPS	22	Feb 88
	6	Korns, Alex	Recommendations for BPS Wage Surveys	23	Mar 88
II			**Wage Data, 1988 – 1994**		
	8	Godfrey, Martin Korns, Alex	An Early Warning Systems for Monitoring Changes in the Labor Market: A Preliminary Proposal	37	May 88
	15	Godfrey, Martin	Real Wages in Urban Construction, 1976–1988: A Review of Some BPS and DPU Data	63	Aug 88
	16	Godfrey, Martin	Agricultural Real Wage Trends, East of Java, 1983–1988: A Comparison of BPS and Patanas Data	66	Sep 88
	23	Manning, Chris	Design for a Quick Survey of Manufacturing Earnings	92	Aug 89
	39	Manning, Chris	Notes on Wage Survey, April 27 – May 19, 1992	149	May 92
	44	Manning, Chris	Review of Progress on the Quarterly Wage Survey and Surveys of Wage Structure	178	Dec 92
	50	Manning, Chris	The Survei Upah Buruh : A Final Report	207	May 94
III			**Survey Design, 1988 – 1991**		
	4	Verma, Vijay	Improving Design and Structure of Major BPS Surveys	17	Feb 88
	17	Verma, Vijay	Notes on Survey Design and Training Work at the BPS	74	Nov 88
	21	Verma, Vijay	Notes on Survey Design	94	July 89
	22	Verma, Vijay	Lecture Notes: Sample Survey Methodology	95	Aug 89
	36	Verma, Vijay	Pilot Studies in Agriculture and Industry: Discussion Notes	126	July 91
IV			**Industry Backcast I, 1988 – 1991**		
	7	Jammal, Yahya	The Survey of Manufacturing Establishments in Indonesia 1975–1985: A Preliminary Assessment of Data Reliability	25	Mar 88
	9	Jammal, Yahya Chomitz, Ken	A Users' Guide to the Medium & Large Manufacturing Data Base	38	Mar 88
	10	Jammal, Yahya	A Users' Look at Manufacturing Data Quality: The Case of Medium & Lasge Establishments	41	May 88
	11	Jones, Leroy	DSP Input/Output Modeling Data Base: 1975, 1980, and 1985	42	May 88
	12	Jones, Leroy Jammal, Yahya	Nominal Manufacturing Growth 1975–1986: Alternative Estimates	43	July 88
	18	Jones, Leroy Jammal, Yahya	Nominal Manufacturing Growth 1975–1986: Extensions	78	Oct 88
	24	Jones, Leroy	Indexing, Economic Analysis and Real Manufacturing Growth	90	Aug 89
	37	Cassing, Shirley	Deflating Value Added for Manufacturing	124	July 91
	38	Jones, Leroy	Review of Progress on Double–Deflation and the Quarterly Industry Survey	134	Aug 91

Statistical Papers Prepared by DSP Consultants for the Biro Pusat Statistik, Jakarta

Vol	SP #	Author	Title	DSP #	Date
V			**Annual Industry Survey, 1988 – 1993**		
	13	Korns, Alex	Industry Data at BPS	44	May 88
	14	Korns, Alex	Recommendations for BPS Industry Surveys	61	Sep 88
	25	Korns, Alex	Notes on Industry Surveys 1989	96	Dec 89
	33	Korns, Alex	A System for Continual Updating of BPS Directory of Large/Medium Industry	117	Feb 91
	45	Korns, Alex	Pedoman Updating Tahunan Direktori Perusahaan Industri Besar/Sedang	179	Mar 93
	54	Korns, Alex et al	Kumpulan Paper Mengenai Direktori Industri	220	Jun 94
VI			**Industry Backcast II, 1990 – 1994**		
	26	Jones, Leroy	Memoranda on Estimating Value–Added for Manufacturing	97	Jan 90
	27	Jammal, Yahya	Industry–level Data in the Annual Survey of Medium and Large Manufacturing Establishments: A Case Study of the Kretek Industry	102	Jun 90
	29	Jammal, Yahya	Analysis of the Results of a Special Survey of Manufacturing Establishments	107	May 90
	30	Jammal, Yahya	Results of Cleaning Data in the Annual Industry Survey	108	Aug 90
	46	Jammal, Yahya	Backcasting Manufacturing Growth: 1975–1990	186	July 93
	47	Jammal, Yahya	Backcasting Manufacturing Growth: 1975–1990 (Computer Programs)	187	July 93
	48	Steel, William Jammal, Yahya	Dynamics of Growth in Large and Medium Scale Manufacturing 1975–1990	190	Aug 93
	49	Jammal, Yahya	Memoranda to BPS (November 1993 – January 1994)	36	Jan 94
	52	Rufiadi, Rifa	Koreksi Data Industri Besar & Sedang 1975–1990: Metodologi	218	July 93
VII			**Quarterly Industry Survey, 1990 – 1993**		
	28	Jammal, Yahya	Selection of the Sample for the Quarterly Survey of Medium and Large Manufacturing Establishments	103	May 90
	32	Verma, Vijay	Redesign of Quarterly Survey of Manufacturing	114	Apr 90
	35	Jammal, Yahya	Notes on the Quarterly Industry Survey (December 1990 – June 1991)	125	Jun 91
	41	Jammal, Yahya	The New Quarterly Survey	174	Dec 92
	42	Jammal, Yahya	The New Quarterly Survey: Volume II	175	Dec 92
	43	Jammal, Yahya Verma, Vijay	Memoranda on the Quarterly Industry Survey	177	Feb 93
VIII			**Small Business and Other Topics, 1988 – 1994**		
	19	Korns, Alex	Implementation of DSP Activities at BPS: Sixth Quarter	79	Dec 88
	20	Korns, Alex Verma, Vijay	BPS Work Program for Improving GDP Source Data	93	Aug 89
	31	Korns, Alex	A Survey Strategy for Small/Household Business	109	Nov 90
	34	Korns, Alex	BPS Survey of Small/Household Business	118	Sep 91
	40	De Leeuw, Frank	Report on Investment, Capital Stock, and Prompt Indicators	159	Aug 92
	51	Korns, Alex et.al.	Kumpulan Paper Mengenai Evaluasi Data Tenaga Kerja	215	Apr 94
	53	Korns, Alex	Notes on Managing the Research Process at BPS	219	Jun 94

AN EARLY WARNING SYSTEM FOR MONITORING CHANGES IN THE LABOR MARKET: A PRELIMINARY PROPOSAL

Statistical Paper #8

by

Martin Godfrey

and

Alex Korns

May, 1988

(DSP #37)

RESTRICTED

TABLE OF CONTENTS

I. INTRODUCTION

Indonesian planners and policymakers who are looking for an indicator of the current state of the labour market have little to choose from. They can have an **out-of-date** measure of a **relevant** (though conceptually problematic) quantity, such as unemployment or underemployment, from a census or labour force survey of, usually, a few years earlier; even if recent figures from such a census/survey are available, they cannot easily be used for comparisons with earlier figures (see Godfrey 1987; Korns 1987). Or they can have an **up-to-date** measure of an **irrelevant** quantity, such as the number of registrations and vacancies at Manpower Department labour exchanges. What they cannot find is information that is both **up-to-date** and **relevant** to employment policy.

The purpose of this paper is to explore the possibility of rectifying this situation, by collecting regular and timely information on the changing state of the market for unskilled labour, as an "early warning system" for planners and policymakers of the need to take emergency policy action to counteract any severe deterioration in the employment situation. In an earlier paper (Godfrey 1987) it was argued that the best type of indicator for this purpose is the real wage rate in those parts of the labour market to which entry is relatively easy (demanding little in the way of capital and skills). This paper surveys the range of such data that are already collected or easily collectable, and their suitability for use as an early warning system (EWS).

II. WHY THE SELF-EMPLOYED ARE TOO DIFFICULT

Collectability is an important criterion of usefulness for this purpose. Data must be collected often and published quickly. The only agency with the structure and capability needed for this is Biro Pusat Statistik (BPS). BPS managers and field staff are already overloaded, and so are some classes of respondents, such as manufacturing establishments. An EWS survey has to be as conceptually simple and easy to administer as possible.

For this reason, the idea of a regular survey of earnings of the **self-employed** has been considered and reluctantly rejected. The case for such a survey has been put persuasively by Kelly (1987). He argues for a stratified, representative sampling approach, along the lines of the Harris/Gallup opinion polls, involving periodic enquiries from a small sample of "key respondents" (such as shoe-repairers, vegetable sales persons or itinerant electricians) about their incomes, costs and hours of work. Respondents, who might also be asked to keep diaries, would probably be paid for completed interviews.

This would be an exciting project, over a limited time period, for a university department, research institute or consultancy firm. But various complexities make it too management-intensive for it to become a routine part of the programme of a government statistical agency such as BPS.

One problem, ignored by most one-off "informal-sector" surveys, is that the earnings of the self-employed usually include a substantial amount which accrues to factors other than labour. Thus part of the net daily earnings of a becak-driver will go to the owner of the becak. Even if he is an owner/driver, part should be deducted for depreciation, interest, repairs, maintenance, etc. A garment trader should deduct not only payments to suppliers, but also interest charges on working capital, fees or rent for premises, etc. Thus the questionnaire would have to be quite complex. And

interest-free loans from family members, investment of ploughed back profits, use of own premises) would make interpretation of answers a complex process also.

Sampling gives rise to a second set of problems. Given the fluidity of the sector, a panel approach would need to be followed. Otherwise, the sampling error that would arise from substituting one respondent for another would be intolerably high for measuring small changes in income from month to month. As Kelly suggests, it would probably be necessary to pay respondents to ensure that they keep in touch. This in itself would probably be enough to rule it out as an approach for most national statistical agencies, including BPS. Even if not, maintenance by substitution of a statistically representative panel would be a difficult task, particularly in Java where a high proportion of the urban self-employed are temporary migrants from rural areas.

In the absence of constant attention from skilled managers, survey results would show such a high ratio of noise to signal as to make them unsuitable for the role of sensitive indicators of relatively small changes in the labour market situation over relatively short periods.

III. HOW SUITABLE ARE EXISTING BPS WAGE SURVEYS?

A second principle in the search for an early warning system is to prefer to use a survey that is already being carried out, rather than to invent a new one. The burden on respondents and BPS staff, already mentioned, is the main reason for this. Only three existing BPS wage surveys are carried out frequently enough to be EWS candidates - the quarterly Survei Upah Buruh (Wages Survey, covering manufacturing industry, mining, hotels and land transportation), the monthly Survei Nilai Tukar Petani (Farmers' Terms of Trade Survey) and the monthly Survei Perkembangan Harga Eceran Bahan Bangunan dan Upah Tukang (Survey of Trends in Retail Prices of Construction Materials and Wages). Each will be discussed in

Table I.
Some features of the BPS Wage Surveys

	Farmer Terms of Trade	Survei Upah Buruh
Abbreviation	SNTP (Survei Nilai Tukar Petani)	SUB
Coverage of economic sectors	Well-to-do farmers, estates	Large and medium manufacturing, mining
Type of workers covered	Hoeing, planting weeding workers	Production workers
Number of workers covered	about 2-3 million	about 2 million
Respondents	875 farmers, 177 estates	3600 establishments
Sampling technique	Judgemental, with clustering	stratified sampling
Number of regions separately identified	14 provinces	26 provinces
Number of industry groups separately identified	1	About 35
Number of occupations separately identified	3	About 200
Wage Concepts	Average wage Wage index	Average wage Wage Distribution
Frequency of collection	Every month	Every 3 months
Frequency of publication	Every month	Every 12 months
Reporting lag	3 months	11-24 months

Note. -- The reporting lag is the time that elapses from the reference period for which the data are collected to the time that they are published. Buruh means wage workers.

A. Survei Upah Buruh

The Survei Upah Buruh (SUB) has been extensively discussed by Korns(1988) and its results have been used by Papanek(1988). Table 1 summarizes some features of the survey. It collects data quarterly, but publishes only once a year, with a lag of over a year. Discussion here will be confined to points relevant to the early warning system.

There are several reasons why the SUB, as it stands, cannot be used for early warning purposes. The main problem is that it collects data, for each occupational category, on (a) the total wage bill for all workers in that category and (b) the number of person-days worked by all workers in that category during the reference period; and then divides (a) by (b) to give average wage for that occupational category. A drawback of this approach is that respondents do not appear always to clearly understand **which** wages and **which** person-days to include in (a) and (b). Another drawback is that the approach places a heavy burden on respondents, who may find it easier to invent numbers than to furnish accurate information. Partly as a result of these problems, SUB data for 1981-85 are not comparable with those for 1986, when the questionnaire format was revised.

Since the occupational categorisation is left to respondents (of varying diligence and awareness of the subtleties of the International Standard Classification of Occupations), there are grave doubts about its meaning and value (Korns 1988:45). BPS clerks must tabulate the occupational data according to the lowest common denominator. This often turns out to be a rather broad concept like "tukang tenun" or weaver, which just means anyone who works in a weaving factory.

Aside from the above problems, the averaging procedure yields a figure that, even for less skilled occupational categories, is unlikely to be sensitive to changes in the labour market situation. Most of the larger firms which employ predominantly time-rate (as opposed to piece-rate) workers seem to operate a mainly internal labour market, recruiting un-

skilled workers and training them largely on the job[1]. Wages of individuals within any given occupational category in the same firm will vary greatly with the length of time they have worked for the firm (on a virtual incremental scale) and with their level of performance (and usually with sex, if the occupational category includes both men and women). For the purpose of averaging, they are all bundled together. This would not matter if we could be sure that their composition would remain more or less constant over time. However, there is no reason to expect this. The average length of service in any occupational category will vary with the extent to which a firm has been recruiting new workers. This is why average wage often rises during a recession in establishments using incremental scales, as they stop recruiting and the average age of their labour force rises[2]. Also, as Papanek has pointed out, the average skill level of any occupational category tends to rise over time, both from the demand side, as technology and product definitions change, and from the supply side, as levels of pre-career education and training increase. The sex composition of occupations also changes, as female labour force participation increases and women workers are substituted for men[3].

The only way to control for at least some of these factors is to collect an individual record for each worker, including information on wage, age, length of service, occupation, sex, education and training. This is too burdensome for a monitoring survey, repeated monthly or quarterly. Is there a short-cut alternative?

One possibility that is being explored, in the cases of manufacturing,hotels and land transportation, is to simplify

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[1] This impression, gained from visits to industrial firms in Jakarta and West Java, is admittedly casual, but see also Clark (1985) and World Bank (1984).

[2] This was the case in one large firm visited in West Java which had had no new recruits in seven years.

[3] The SUB can handle this in principle. Beginning in 1986, its questionnaire distinguishes between males and females.

the SUB, by asking about wage **rates** for a limited number of occupations rather than for data that will allow calculation of average wages for all occupations. Since, as already discussed, wage rates for experienced workers will tend to vary with level of performance, such a question will only be easily answerable in the case of new recruits, and will probably have to be confined to them. However, information about the starting wage in selected unskilled occupations in selected branches (even if confined to the larger firms covered by the SUB) should form a useful part of an early warning system.

A pilot study will be needed to test out the above proposal. There are two special features of the pilot study to bear in mind. First, before the questionnaire is distributed, a BPS manager (for example, a division chief) should compile a list of occupations to be surveyed. The list should be based on a review of questionnaires for previous years. Second, **the pilot survey should be conducted for at least two quarters** to determine whether the data for individual establishments appear comparable over time.

The pilot study should check for two kinds of problems. First, it will tell us whether starting wages simply equal the legal minimum wage in many cases. If they do, there is no need for a survey to collect the starting wage. Second, the pilot survey will help us to understand whether most employers have a clear concept of a regular starting wage. If employers do not have such a concept, their answers to the wage rate question may not be very meaningful. This can be checked by having interviewers record respondents' counter-questions and by checking whether the data appear comparable over time.

If the pilot survey indicates that a regular ongoing survey is feasible, a regular survey could be conducted at little cost -- much less than for the Survei Upah Buruh. The survey would involve contacting every three months a few hundred establishments distributed in 4 or 5 provinces. The establishments would be asked to provide one or at most several wage rates -- a task of perhaps 5 minutes. Thus, the survey would lend itself to rapid collection and tabulation. It would

Farmer Terms of Trade Survey, which reports only 3 months after the reference period.

B. Farmers' Terms of Trade Survey

The Farmers' Terms of Trade Survey looks usable for EWS purposes more or less as it stands[4]. Table 1 summarizes some basic features of the survey. The data are collected and published monthly, with a lag of only about 3 months. They are collected as part of a price survey. For each kecamatan in the sample, the mantris report a single wage rate for each of three occupations.

In the case of farm labour, wage rates do not appear to vary with experience and performance, and the concept of a going (male or female) wage rate for a particular activity in a particular area seems to have meaning.

A comparison of these BPS data with data for East and West Java from the Panel Petani Nasional (PATANAS) survey (see below, and Godfrey and Swenson, forthcoming) reinforces the impression gained in the field that both the price and wage data are of reasonably high quality. They are also collected and published relatively quickly.

The main problem, from the point of view of their use in an early warning system, arises from the absence of a set of price index weights that would reflect the pattern of expenditure of these workers. The existing weights, unchanged since 1976, are based on the expenditure pattern of the farmers who employ them. Given a new set of suitable weights[5], information on the real wages of agricultural labour from this source could become the backbone of an early warning system.

Another, lesser problem with the farm wage data is that mantris may occasionally substitute wage data in a way that impairs comparability from one month to the next. For example, a mantri may substitute hoeing wages from a low-wage village for hoeing wages from a high-wage village, or data for women for data for men. The remedy for this problem is,

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[4] See Korns (1988:58) for a full description of this survey.

first, to check time series for individual kecamatan. This would involve putting together time series for a limited number of kecamatan, say 25, for as many years as possible. The series could be examined for puzzling breaks. Second, if puzzling breaks do appear in the kecamatan series, BPS needs to formulate more precise guidelines for substitution procedures to be followed by mantris.

C. **Survey of Construction Wages**

Since 1979 BPS has been collecting monthly data on wages of bricklayers (and sometimes carpenters) in Jakarta and 25 provincial capital cities, as part of its survey of building material prices. In 1985 the number of cities covered by the survey was increased to 42.

The purpose of the survey, as with the Farmers' Terms of Trade Survey, is to gain a quick impression of the going wage. In this case, however, the information is obtained not from workplaces but from a small panel of workers in each city. There are obvious dangers in such a methodology. In particular, how can the representativeness of such a small panel be ensured and maintained? What are the advantages of using a panel of workers, as opposed to a panel of establishments? There is a puzzling sharp break in the BPS data for the four provincial capital cities of Java for April 1985 that needs to be explored. How serious such problems are will depend to some extent on the nature of the labour market. A comparison of the results of this survey with those of a similar survey carried out since 1977 by the Department of Public Works (see below) should help an assessment of its usefulness, as it stands, for EWS purposes. DSP field visits to construction sites are also needed, in order to develop a more concrete understanding of this labour market.

In principle, the construction labour market appears a good candidate for inclusion in the early warning system, because it is believed to be a casual labour market. If further study bears out this impression, it would be appropriate to include a BPS construction wage survey in the early warning system.

IV. HOW USEFUL ARE OTHER EXISTING SURVEYS?

Two non-BPS wage surveys are carried out frequently enough to be potentially suitable for use in an early warning system - the PATANAS bi-weekly survey of rural wages and the Public Works Department bi-monthly survey of construction wages, both already referred to above. Each will be discussed in turn.

A. The PATANAS Wage Survey

This survey, managed from the Centre for Agro-Economic Research, Bogor, has been collecting wage data on six categories of unskilled labour in East Java since 1983 and in West Java, West Sumatra and South Sulawesi since 1984. Since late 1987 the survey has been extended to Central Java, Lampung and South Kalimantan, and there are plans to cover North Sulawesi also.

The survey covers only a small sample of villages, 25 in the case of East Java, for instance, and finds wide variations in wage rates for the same activity between them. As a result, average nominal wage rates for a province tend to fluctuate quite widely from month to month. It has also proved quite difficult to keep to the data collection schedule and there are several missing observations, including, for West Java and South Sulawesi, the whole of the May-November 1986 period.

Consumer prices for 15 commodities are collected from village markets, and the BPS weights for the 9 essential commodities are used to construct a deflator index for calculation of real wages. As Papanek points out, this procedure gives excessive weight to rice and kerosene and has tended to impart an upward bias to real wage estimates.

In short, the PATANAS survey will be useful to an early warning system, mainly as a check on the accuracy of the BPS Farmer Terms of Trade data but also as a source of independent data where there are gaps in BPS coverage. And information from another PATANAS survey (quarterly, covering income,

employment and consumption) may be useful for efforts to reweight the price index for rural wage-earners.

B. The Public Works Department Urban Construction Wages Survey

A long series of data on urban construction wages exists, collected every two months by the Department of Public Works (DPU) for a large number of cities and towns. The data, on wage rates for ten or more categories of workers, are published by the Building Information Centre but are not widely distributed. There are major gaps in the Centre's historical collection of the reports. The statistical quality of the data has not yet been evaluated. The information is collected from the management in a small number of sites in each city (in Jakarta, for instance, from two large and two small sites). In earlier years an average figure was calculated but more recently a range of wages is given for each category.

There is a need to evaluate these data, by a combination of DSP field visits and comparison with the BPS data. The DPU data may not be usable directly in an early warning system, but they provide a useful check on the accuracy of the BPS construction wage series discussed above. There may even be a possibility of cooperation in such data collection between the two agencies.

V. WHAT NEW SURVEY WORK WOULD BE USEFUL?

The existing surveys described above could usefully be supplemented by some additional data on **casual wage-earners in urban areas**. The attraction of this category is that there tends to be a wage rate for the job, irrespective of experience or performance, thus reducing the scope for error, both sampling and non-sampling.

In some countries the wages of **dock workers** might be useful for this purpose. In Indonesia, however, although such workers are casual (working only when there is a demand for their services - on average only fifteen days a month), they

are paid at daily rates on civil service scales, unchanged since May 1985.

A more promising indicator may be the wages of workers in **retail and wholesale markets** - not the market porters (kuli pasar), who are paid by the load, but the **stallholders' assistants**. The wages of new assistants appear to be fairly uniform, turnover is high, and the clustering of stalls facilitates interviewing. Procedure could be simple, involving only the addition of a question about the wage rates of new assistants to the monthly Consumer Price Index survey in each market.

At Jatinegara wholesale market in Jakarta, which we visited in April, the most common daily wage for a new worker appeared to be 2500 rupees cash. There were an estimated 1500 shop assistants in the pasar. There was high turnover, so that a large proportion of workers to have worked for less than 6 months. Although there were some variations on this wage, procedures could probably be developed for controlling for many of these variations. The store owners seemed very open about their wages, so that respondents could be expected to be cooperative.

VI. THE ELEMENTS OF AN EARLY WARNING SYSTEM

An early warning system, along the lines discussed so far, would, then, have several elements.

A. Agriculture

Its backbone would be the BPS agricultural wage series from the farmer terms of trade survey, with reweighted price indices to reflect wage-earners' patterns of expenditure. At present availability of price indexes confines coverage, as far as real wages are concerned, to Java. However, BPS has already collected the price data for 10 provinces outside Java since 1981; publication of indexes for these provinces only awaits agreement on a suitable weighting system. PATANAS data could be used as a check on and supplement to these data as

B. **Non-agriculture**

The main focus here would be on casual wage-earners on construction sites and in markets. Nominal wage series for a suitable category of construction labor and for market stallholders' assistants could be deflated by food prices from the CPI for the relevant city. In addition, data on starting wage rates for unskilled workers in selected manufacturing branches, hotels and land transportation (from a streamlined SUB) could be deflated by the same index.

VII. HOW WOULD AN EARLY WARNING SYSTEM WORK IN PRACTICE?

Although the full set of necessary data are not yet available, it is possible to illustrate how an early warning system might work in practice, by means of Figures 1 to 6.

A. **Real Wage Trends**

Figures 1 and 2 show **real wage** trends in agriculture in East, West and Central Java and in construction in Bandung, Semarang, Yogyakarta and Surabaya between 1979 and 1987[6]. These are the kinds of summary indicators[7] that would initially be brought to the attention of top policymakers. Their message during the second half of 1987 would clearly have been alarming. Agricultural real wages appeared to be falling sharply, to their lowest levels for eight years, and real wages in the urban construction sector, though still at historically high levels, were on their steepest and longest downward slope for years.

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[6] The substantive problems with these series are discussed elsewhere. Here they are used for illustrative purposes only.

[7] In practice they would have wider coverage, extending beyond Java and, in urban areas, beyond the construction sector, as

Figure: 1

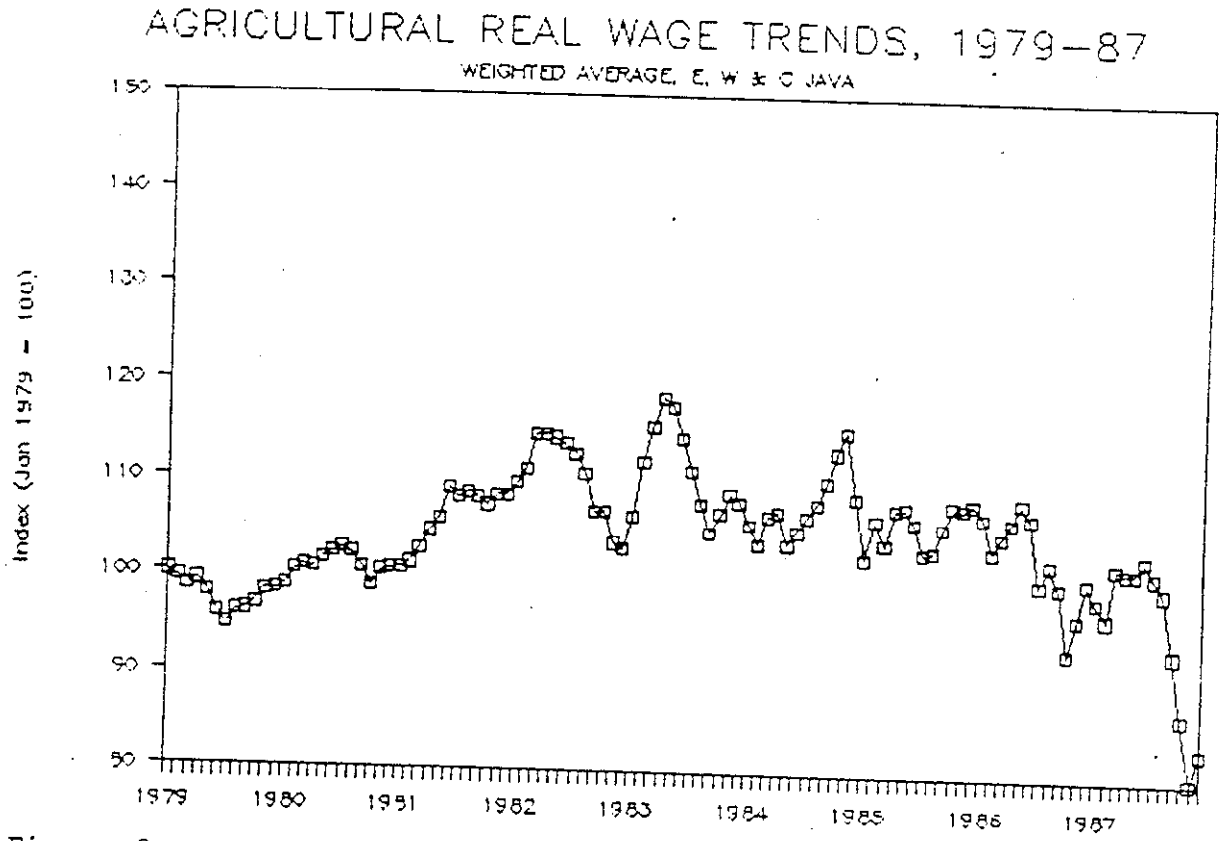
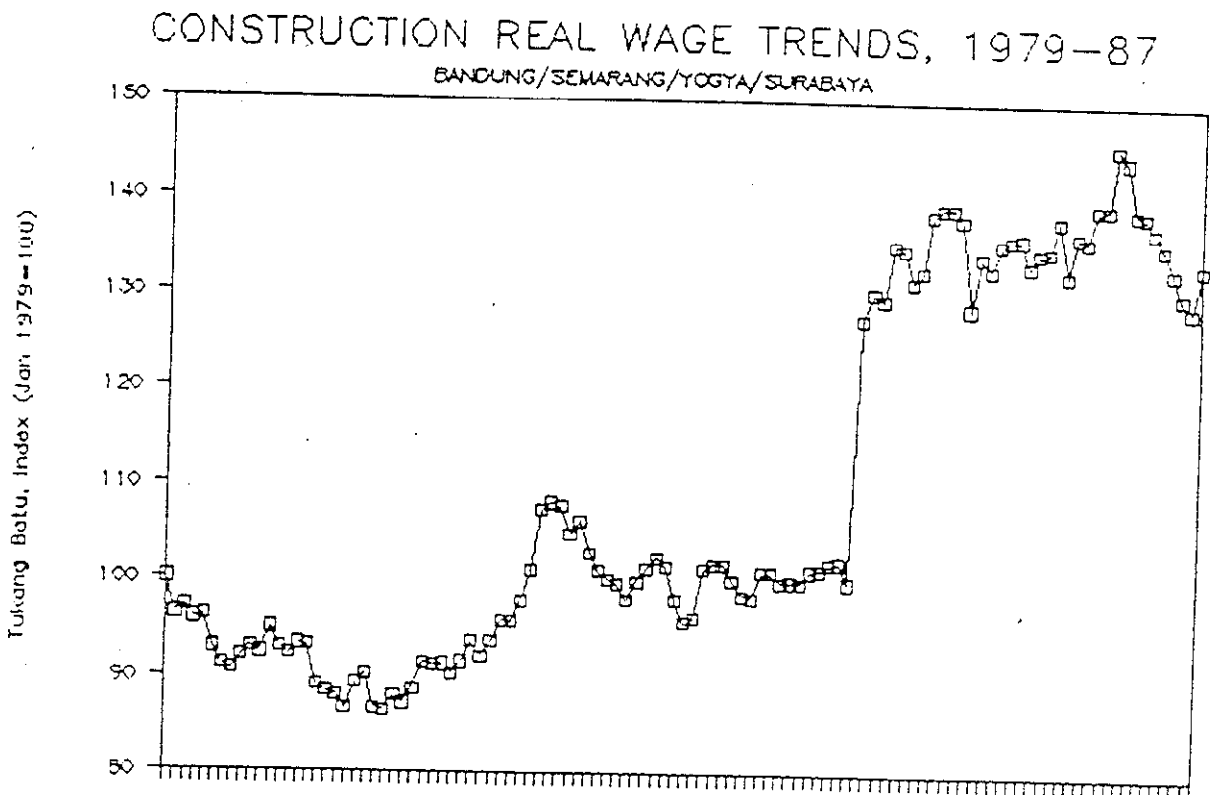


Figure: 2



B. Nominal Wage Trends

The next step would be to go behind the real wage curves to investigate the reasons for these falls. Figures 3 and 4 show the trends in **nominal wages** in the two sectors. In agriculture these appear to have continued their steady upward climb, with a slight acceleration in the last few months of the year. In construction, after a long period of stagnation, they also moved up towards the end of 1987.

C. Price Trends

The spur behind the end-year increases in nominal wages, to judge from Figures 5 and 6, was the steep increase in **food prices**, particularly in rural areas, to which wages reacted with a lag. Thus in towns the problem seems to have been a combination of stagnant nominal wages and rising prices, while in the countryside the sudden explosion of food prices seems to have been mainly to blame.

Figure: 3

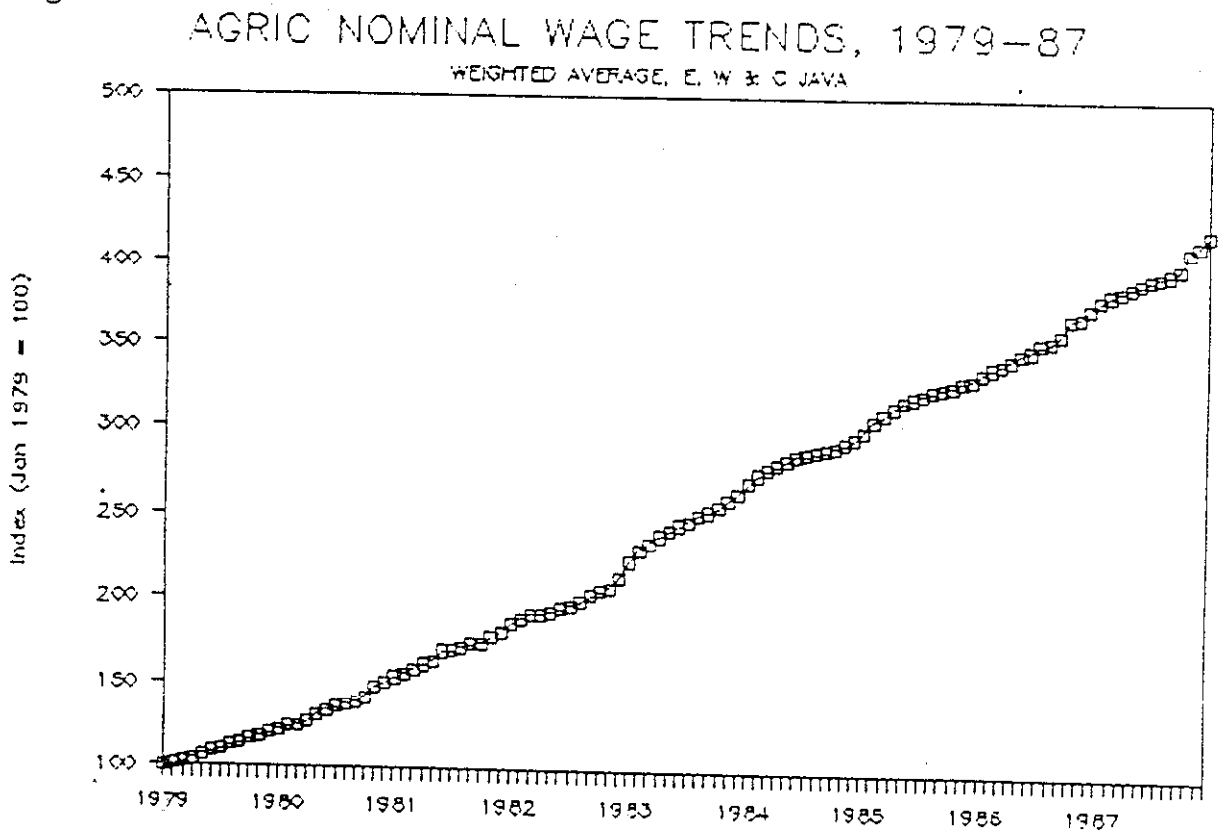


Figure: 4

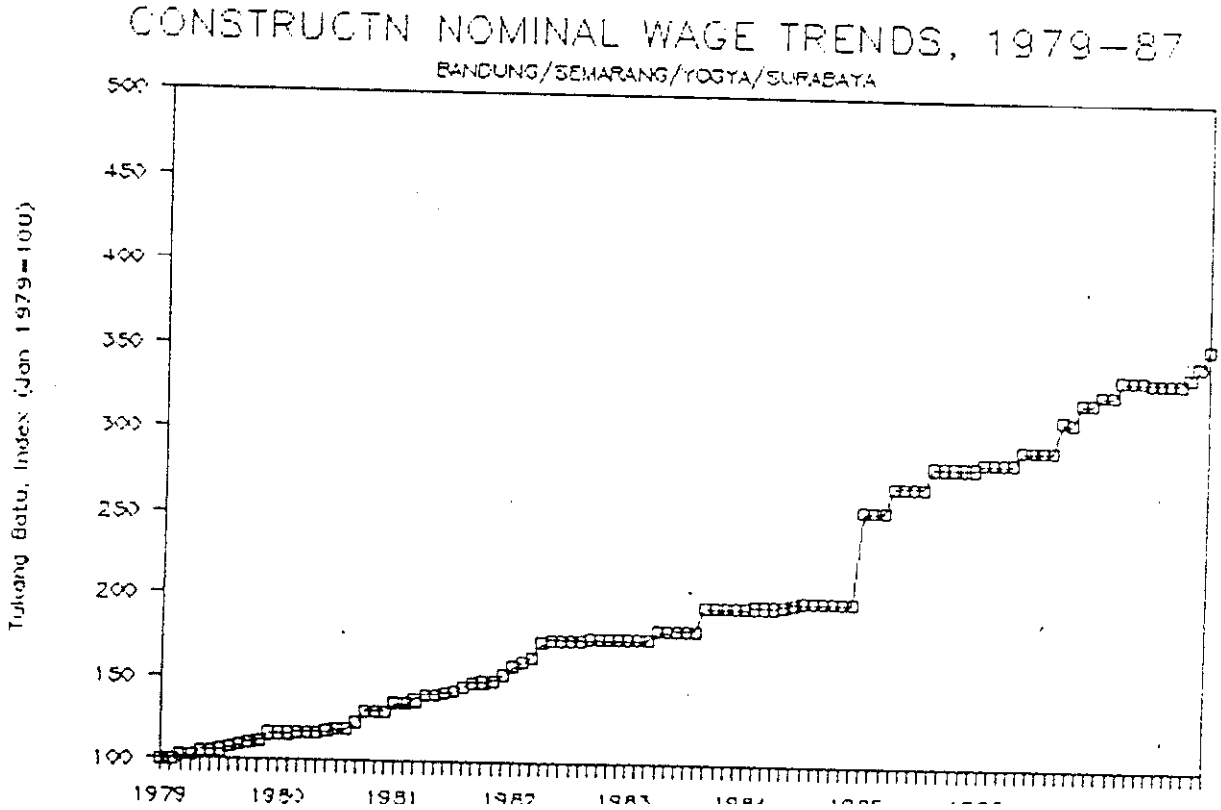


Figure: 5

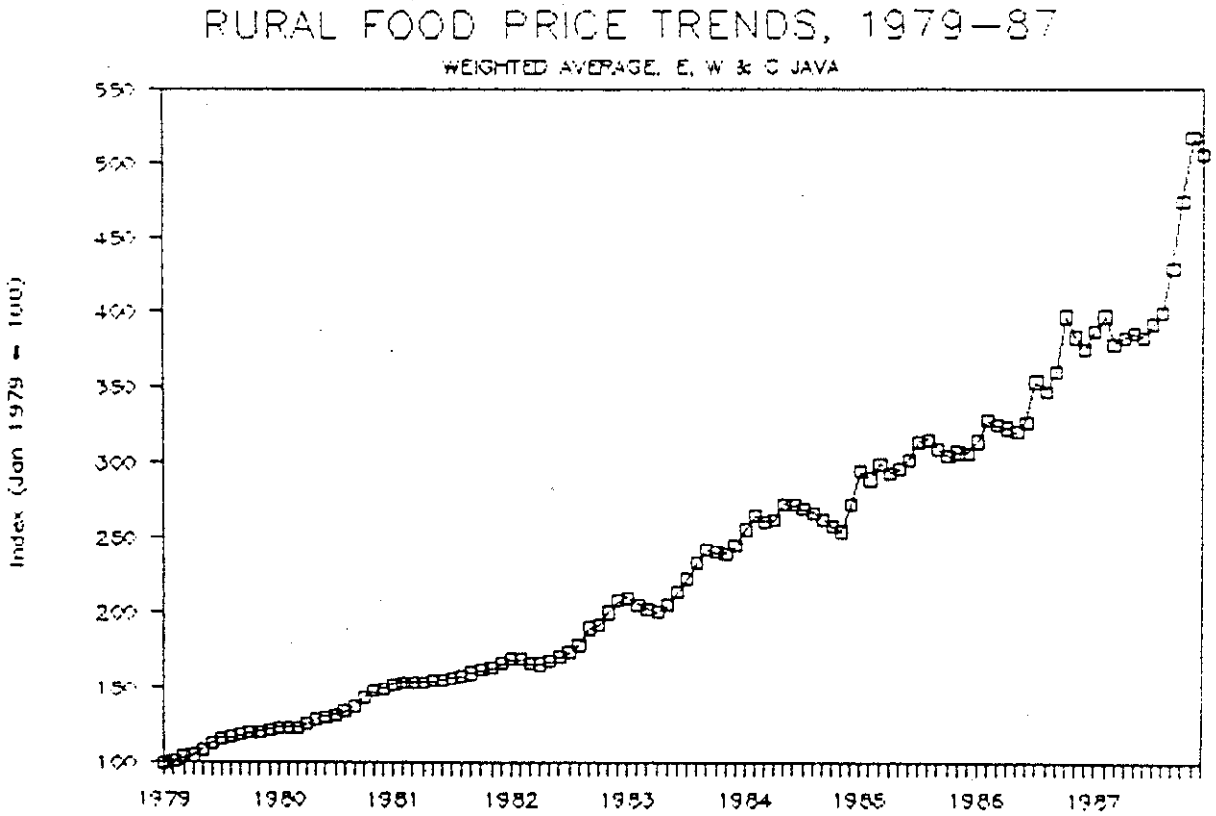
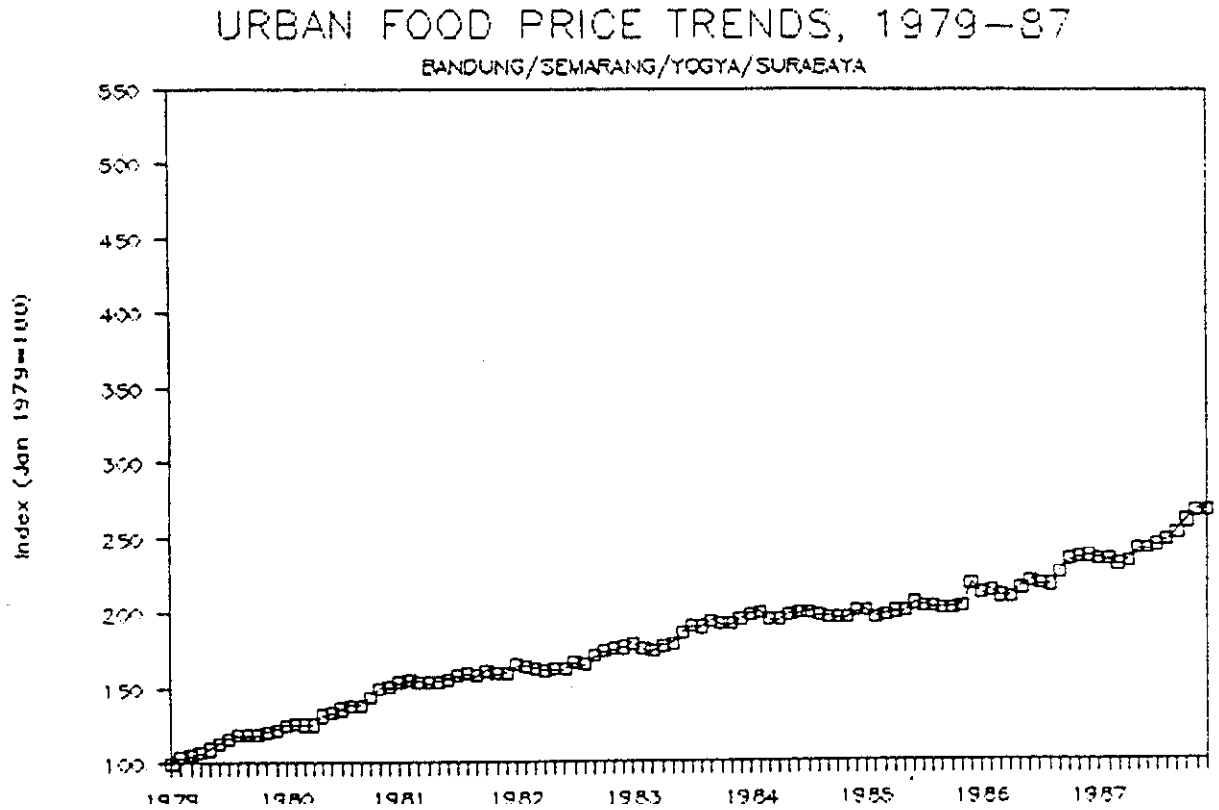


Figure: 6



D. Disaggregated Policy Response

The next step for planners would be **disaggregation** -- by district (possible to kecamatan level for agriculture and to provincial capital for non-agriculture) and, in the case of price indices, by product. In this way a disaggregated policy response could be mounted, increasing the demand for labour where appropriate (e.g. by rural public works schemes) and/or increasing the supply of the appropriate wage good as indicated.

VIII. CONCLUSIONS

While the elements of an early warning system certainly exist, there is some way to go before such a system could become fully operational. Preconditions for a comprehensive and effective system include the following.

(1) Preparation of price data by the BPS farmers' terms of trade survey would need to be extended to the 10 provinces outside Java for which data are currently collected but not tabulated. This would require BPS agreement on a set of weights.

(2) A study would need to be made of the adequacy of existing weights for the cost of living index in the farmers' terms of trade survey, to determine whether the weights properly reflect the consumption patterns of agricultural wage earners.

(3) A reliable survey of wage rates for unskilled casual workers in the construction industry would need to be developed, based on a review of the existing BPS and DPU surveys.

(4) Wage rates for new assistants to stallholders in city wholesale markets would need to be collected, perhaps as part of the ongoing CPI survey.

(5) As part of a modified Survei Upah Buruh, starting wage rates for selected unskilled workers in manufacturing, hotels and land transportation would need to be collected.

(6) A study would need to be made of the adequacy of existing CPI weights, to determine whether the weights properly reflect the consumption patterns of these categories of un-

This adds up to a relatively modest set of extensions of current surveying and analytical activity. It should not take long to put these components into place. Meanwhile experiments with a partial and provisional early warning system could begin.

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REAL WAGES IN URBAN CONSTRUCTION, 1979-1988: A REVIEW OF SOME BPS AND DPU DATA

Statistical Paper #15

by

Martin Godfrey

August, 1988

(DSP #63)

RESTRICTED

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF TABLES

LIST OF FIGURES

Tukang batu: stone bricklayer/mason

0. EXECUTIVE SUMMARY

This paper reviews two series of data on wages in urban construction - from the Department of Public Works (DPU) and the Central Bureau of Statistics (BPS) respectively. The two series, on nominal wages of tukang batu since January 1979, are available for Jakarta, Bandung, Semarang, Yogyakarta, Surabaya, Denpasar, Mataram, Manado, Ujung Pandang, Banjarmasin, Pontianak, Palembang, Padang and Medan. For the purpose of calculating real wages the mean of the two series in each city is used, with the aim of increasing the size of the sample in each case. Because of doubts about the relatively low rate of increase in food prices recorded by the urban consumer price index (CPI), two alternative deflators are used in the real wage calculation - the CPI (food) for each city, and the minimum physical needs (or kebutuhan fisik minimum - KFM) index for each province.

In general, whichever deflator is used, it seems that real wages of tukang batu have been tending to decline in recent years. If the KFM deflator is used, only Bandung, Surabaya and Banjarmasin are exceptions to this tendency; if the CPI, then Semarang and Ujung Pandang are added to the list. The issue of the choice of deflator (important to the outcome in many cases) is still unsettled. In Java a comparison with trends in real agricultural wages is possible and tends to support a preference for the KFM index over the CPI in this case. But work to develop a new index that reflects the differing consumption patterns of wage-earners in the various cities is still needed.

This is one reason why the real wage series used in this paper, based on an average of the DPU and BPS series, though an improvement over either series on its own, is not ready for immediate deployment in an early warning system. Another is the nature of the occupation covered. "Tukang batu" can mean

different things in different types of project[1] but in general embodies more skill than has usually been acquired by those who inhabit the margins of the urban labour market. As Table 1 shows, the daily wage in this occupation is, on average, more than three times that of agricultural hoeing workers[2]. General labourer, or pekerja, would better represent the type of occupation open to casual, unskilled labour.

A third reason for caution in this respect is the need to be sure that the construction wage survey is asking the right questions, and with the right size of sample. Matters are complicated by the mandor system and by the prevalence of overtime. The mandor system means that the information must be obtained directly from the workers, since the project management will usually not know how much the mandor pays each member of his team. Care must be taken to confine the definition of wage to the payment received for a basic seven-hour day, with a standardised treatment of allowances for food, transport, etc. Such basic rates usually remain unchanged for long periods on particular projects - which means that samples need to be much bigger than those in the two surveys reviewed in this paper if changing conditions in this labour market are to be captured.

Nevertheless the wage series discussed in this paper are, even as they stand, of considerable analytical interest. In conjunction with agricultural wage data, they can help to throw light on interactions between urban and rural labour markets, including migration and wage determination. In conjunction with the DPU data on other building trades, they can inform analysis of occupational differentials and returns to skill acquisition. And, while new sources of information are being developed for an early warning system, it may be possible to make interim use of some of these data even for this purpose.

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[1] So can "tukang kayu", the other occupation for which there are two data series.

[2] Though for a longer working day (7 hours compared with 5 in agriculture).

I. INTRODUCTION

It would be useful for several purposes to have a reliable series of data on urban construction wage rates. For one thing, as a casual labour market, construction suggests itself as a candidate for inclusion in an "early warning system" for monitoring the changing state of the market for unskilled labour (see Godfrey and Korns, 1988, for further discussion). Such data would also be useful for analyses of changes in wage structure, rural-urban migration, the economics of training, etc.

At least two fairly longstanding series of construction wage data exist in Indonesia. The longest and most wide-ranging is that collected by the Department of Public Works, covering ten or more occupations in a large number of cities and towns. The second series, collected by BPS, covers wages of bricklayers (tukang batu) and sometimes carpenters (tukang kayu), in Jakarta and 26 provincial capital cities.

The limited purpose of this paper is to review these two series, with a view to assessing the reliability of either or both of them for analytical purposes.

II. THE URBAN CONSTRUCTION WAGE DATA COLLECTED BY THE PUBLIC WORKS DEPARTMENT

The Department of Public Works collects wage data in a large number of cities and towns throughout Indonesia, at two-monthly intervals. Occupational coverage varies. In Jakarta, for instance, the following are covered: pekerja (labourer, often apprentice); mandor (foreman or gang leader); tukang kayu (carpenter); tukang besi (blacksmith); tukang batu (bricklayer); tukang listrik (electrician); tukang plitur (polisher); tukang cat (painter); kepala tukang (head craftsman); and tukang gali (digger). In some other towns and cities more occupational categories are covered, in some fewer. The data are held in the Building Information Centre but are not widely distributed. There are major gaps in the Centre's collection of the relevant reports. The information is collected from workers in a small number of sites in each city (in Jakarta, for instance, from three large and three small sites). In earlier years an average wage figure was calculated, but more recently a range of wages is given for each category. Wages are defined to include cash payments only, excluding such payments in kind as food, meals and cigarettes, and to represent the rate for a normal seven-hour day, excluding overtime.

III. THE URBAN CONSTRUCTION WAGE DATA COLLECTED BY THE CENTRAL-STATISTICAL OFFICE

The purpose of the BPS survey of construction wages is to gain a quick impression of the going wage rate for tukang batu and tukang kayu, as part of the survey of building costs. The survey results are published in **Perkembangan Harga Eceran Tujuh Macam Bahan Bangunan**. The cities covered by the survey

are: (since 1979)Jakarta[3], Medan, Padang, Palembang, Bandung, Semarang, Yogyakarta, Surabaya, Denpasar, Mataram, Kupang, Pontianak, Banjarmasin, Manado, Ujung Pandang, Ambon, Jayapura, Banda Aceh, Pakanbaru, Jambi, Samarinda, Bengkulu, Tanjungkarang, Bandar Lampung, Palangkaraya, Palu, Kendari, and (since 1985) Dili. The information is obtained from a small panel of workers in each city.

IV. THE DPU/BPS COMPARISON

A. Nominal Wages

Appendices 1 to 14 give the details of the wage and price data which will form the basis of the comparison. The first series to be compared are those on nominal wages of tukang batu: the figure in the first column from the DPU data; and the figure in the second column from the BPS data. The BPS data are complete and as published[4]. In the DPU series, however, there are many missing observations which have had to be estimated (by means of mere straight-line interpolation).

Figures 1 to 14 present the comparisons graphically for ease of analysis. There is clearly some variation in the degree of correspondence between the two series.

In the case of Jakarta, to begin with, Figure 1 suggests that they diverge increasingly, with the trend of the DPU data more strongly upward. The long periods of unchanging wage levels depicted by BPS may reflect the small size of their sample, but it is also more in line with the impression of recent trends gained by observers of this labour market.

The other Javanese cities (Figures 2 to 5) show more similarity in trend between the two series, apart from Bandung in the 1982-85 period. Denpasar and Mataram, also, (Figures 6 and 7) are not too far apart. In Sulawesi (Figures 8 and 9) the trends in Manado diverge in 1981-82 but are otherwise

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[3]The data for Jakarta are not published.

[4] Apart from Jakarta, January - November, 1979, for which they are estimated.

Figure 1: NOMINAL DAILY WAGES, TUKANG BATU

JAKARTA, 1979 – 1988

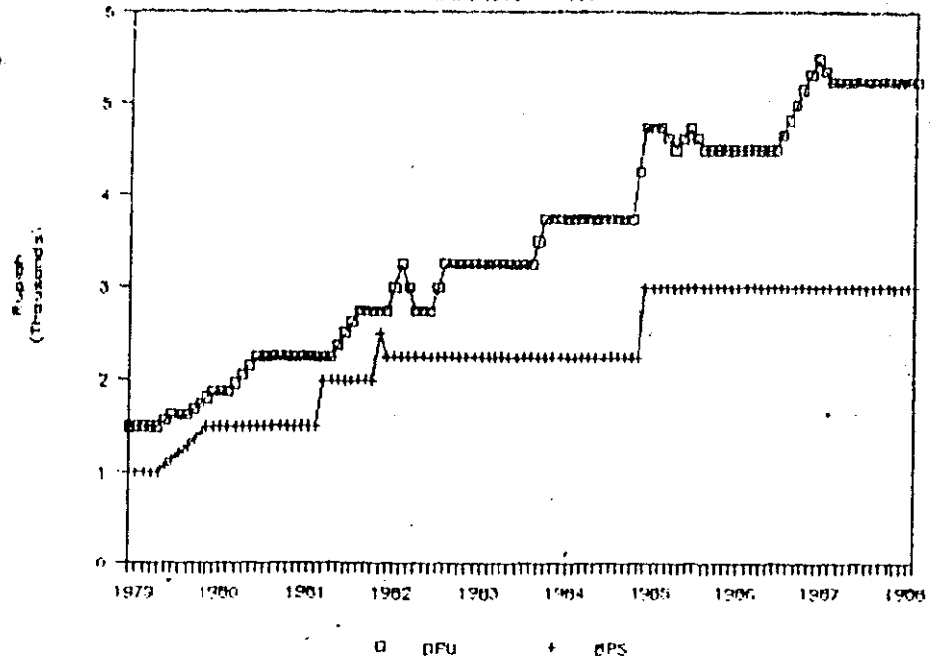


Figure 2: NOMINAL DAILY WAGES, TUKANG BATU

BANDUNG, 1979 – 1988

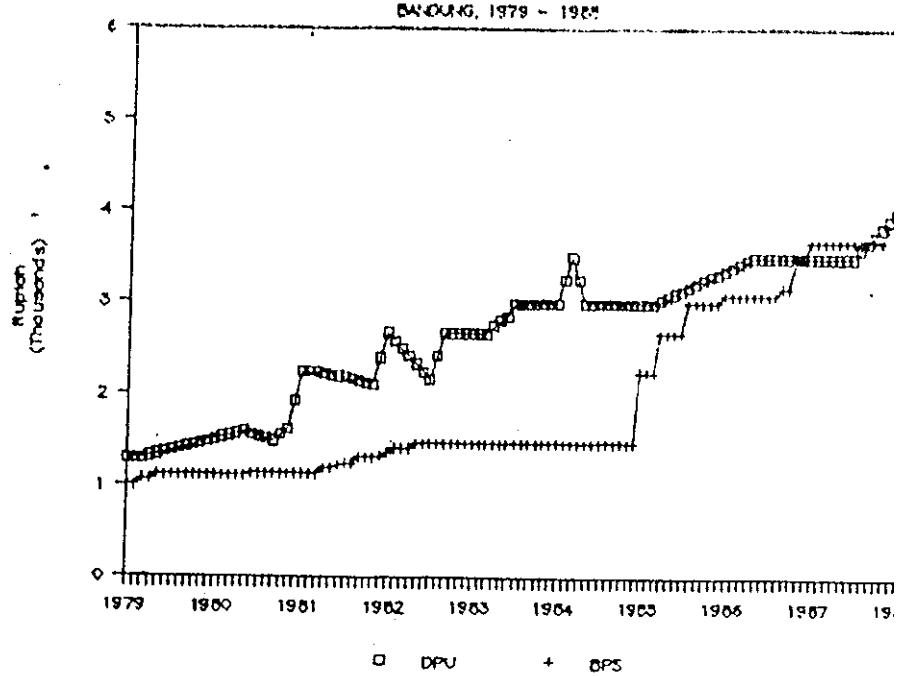


Figure 3: NOMINAL DAILY WAGES, TUKANG BATU

SEMARANG, 1979 – 1988

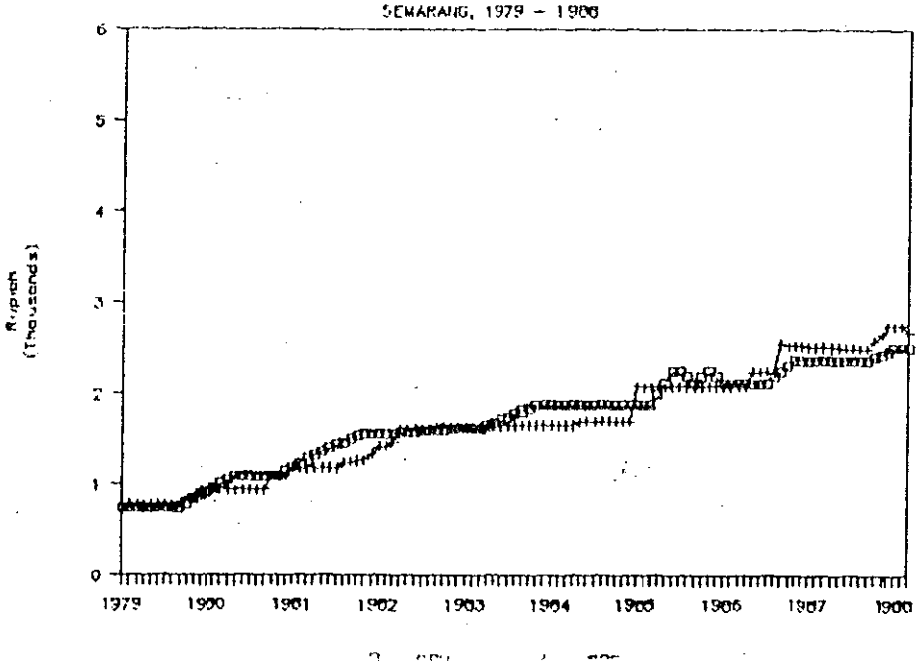


Figure 4: NOMINAL DAILY WAGES, TUKANG BATU

YOGYAKARTA, 1979 – 1988

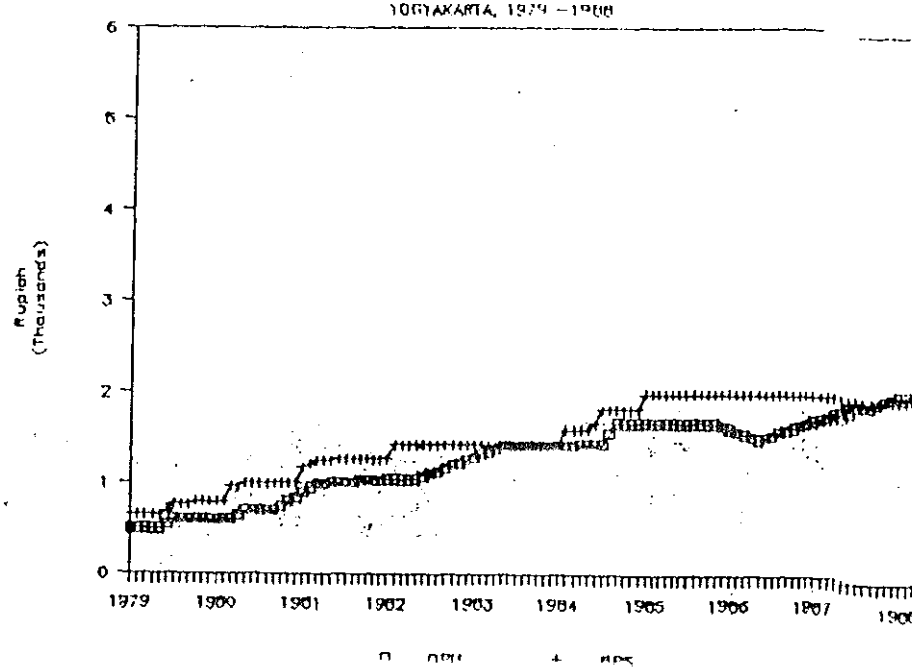


Figure 5: NOMINAL DAILY WAGES, TUKANG BATU

SURABAYA, 1979 – 1988

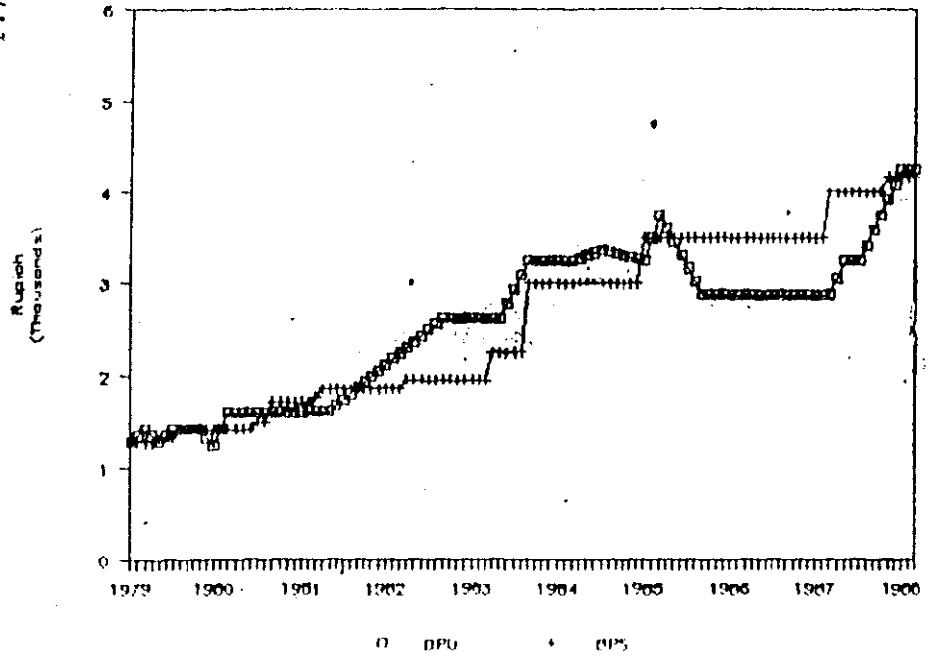


Figure 6: NOMINAL DAILY WAGES, TUKANG BATU

DENPASAR, 1979 – 1987

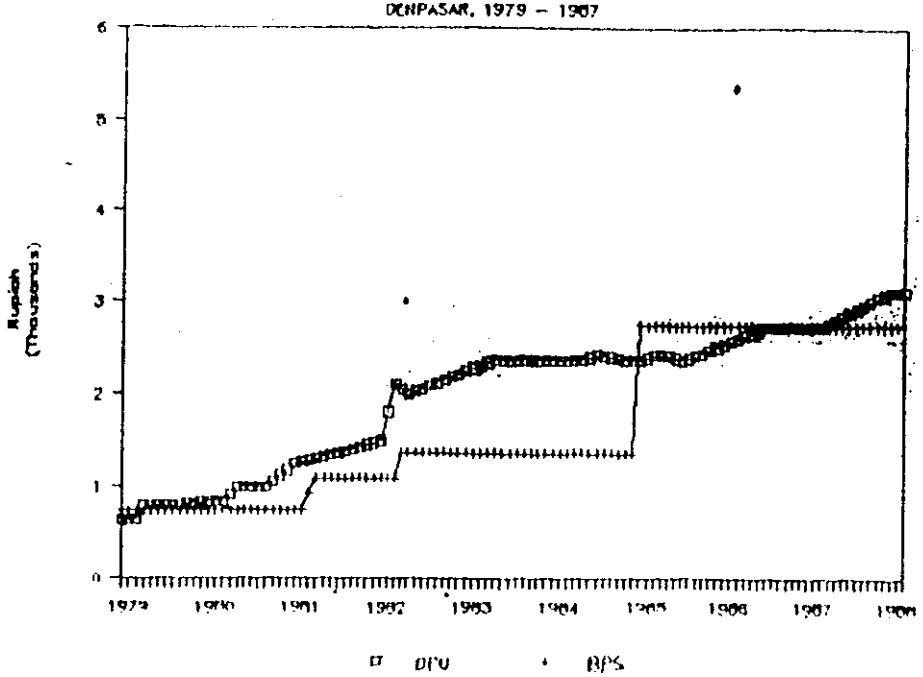


Figure 7: NOMINAL DAILY WAGES, TUKANG BATU

MATARAM, 1979 – 1988

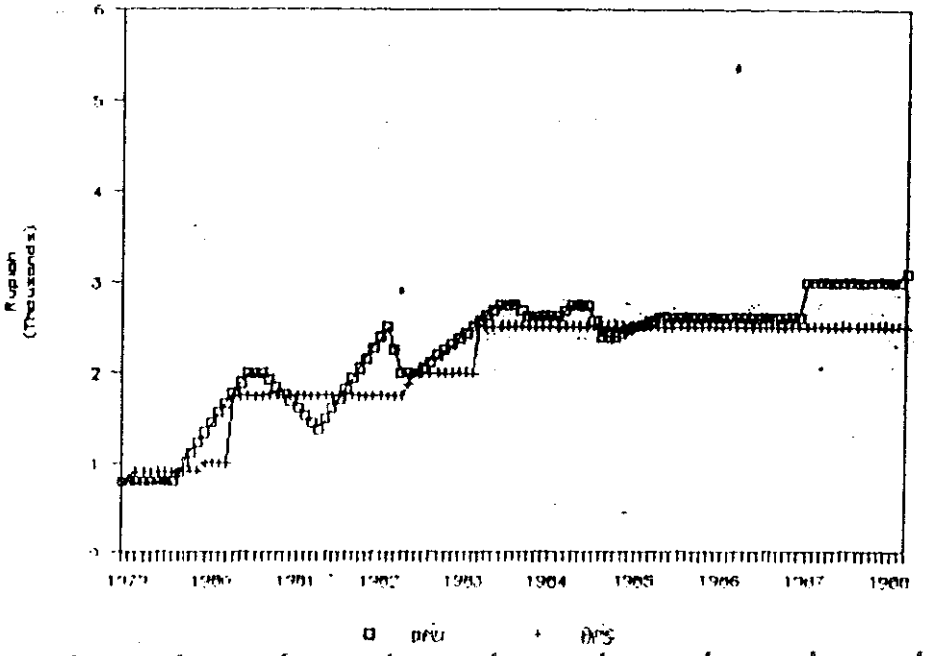


Figure 8: NOMINAL DAILY WAGES, TUKANG BATU

MANADO, 1979 – 1988

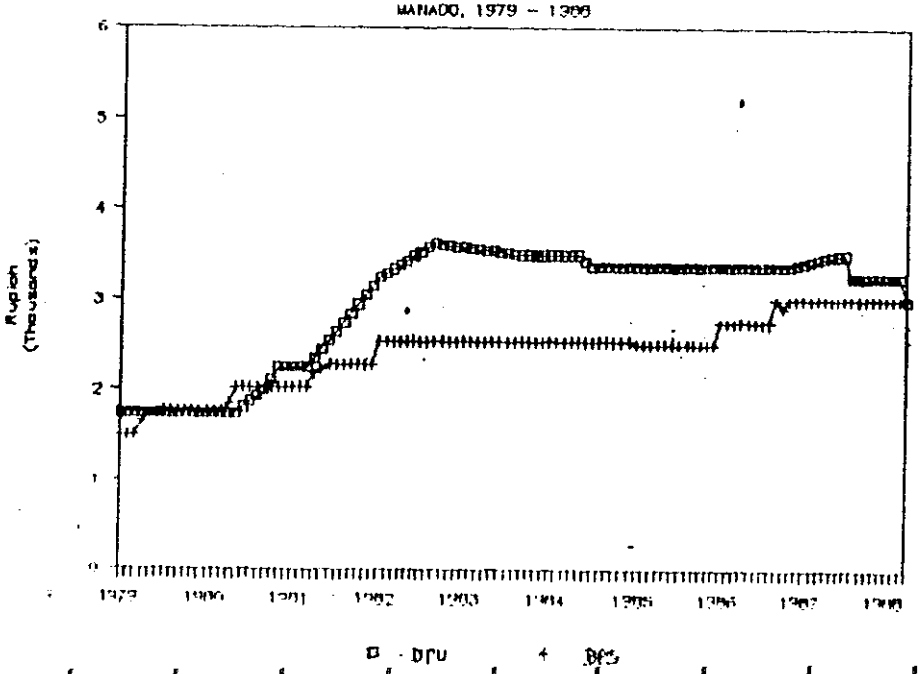


Figure 9: NOMINAL DAILY WAGES, TUKANG BATU
UJUNG PANDANG, 1979 – 1988

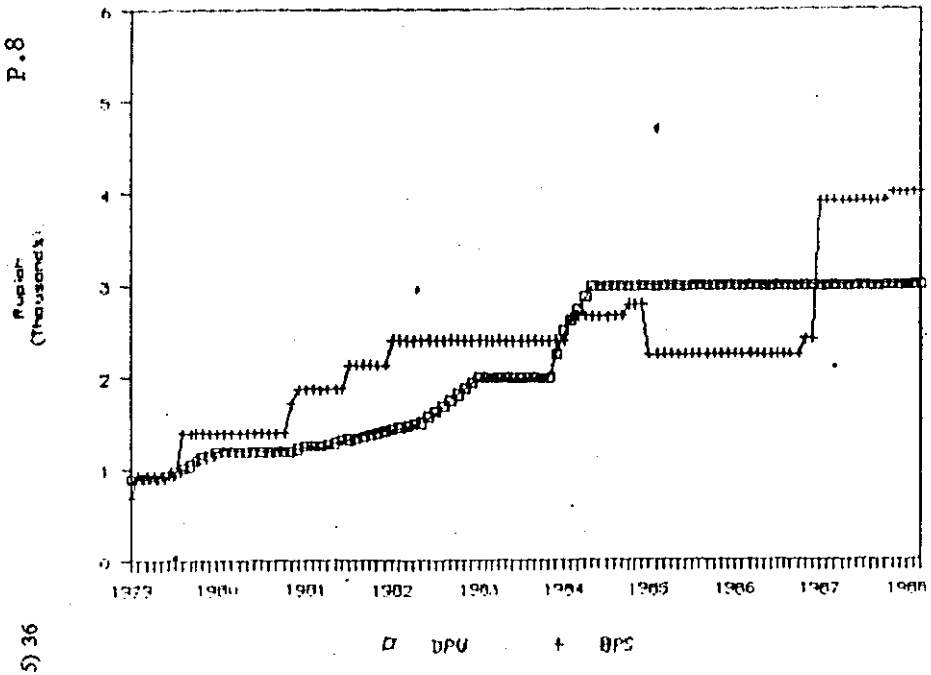


Figure 10: NOMINAL DAILY WAGES, TUKANG BATU
BANJARMASIN, 1979 – 1988

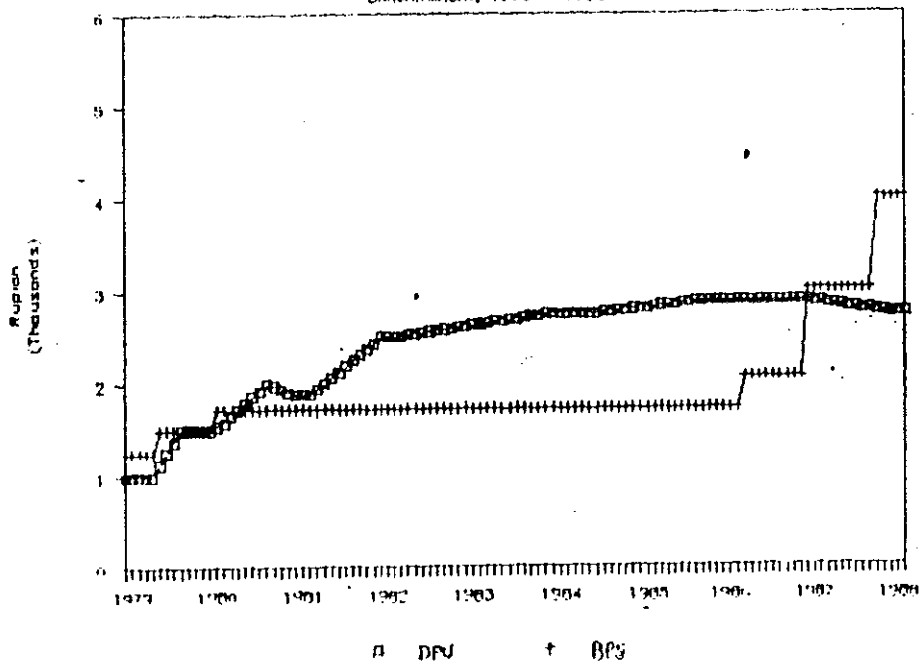


Figure 11: NOMINAL DAILY WAGES, TUKANG BATU
PONTIANAK, 1979 – 1988

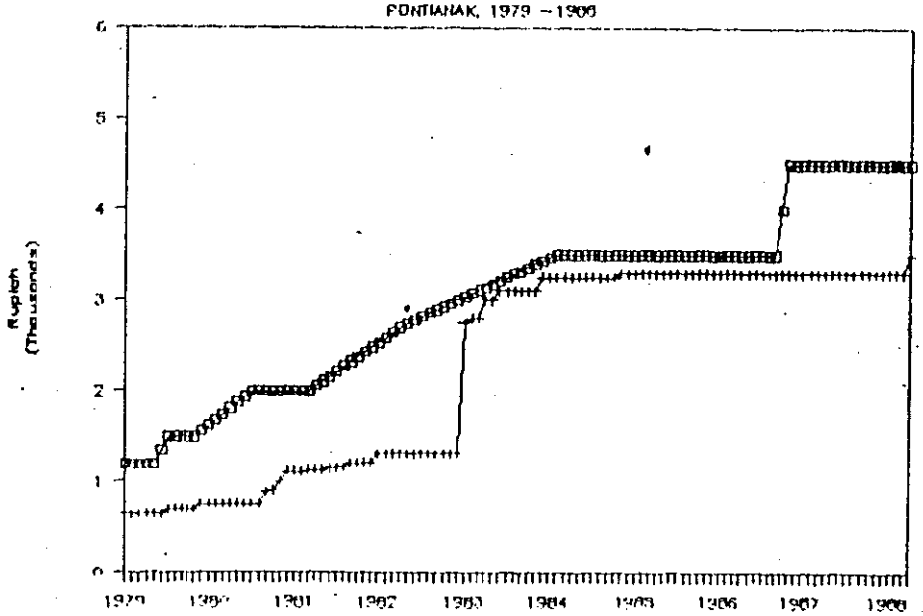
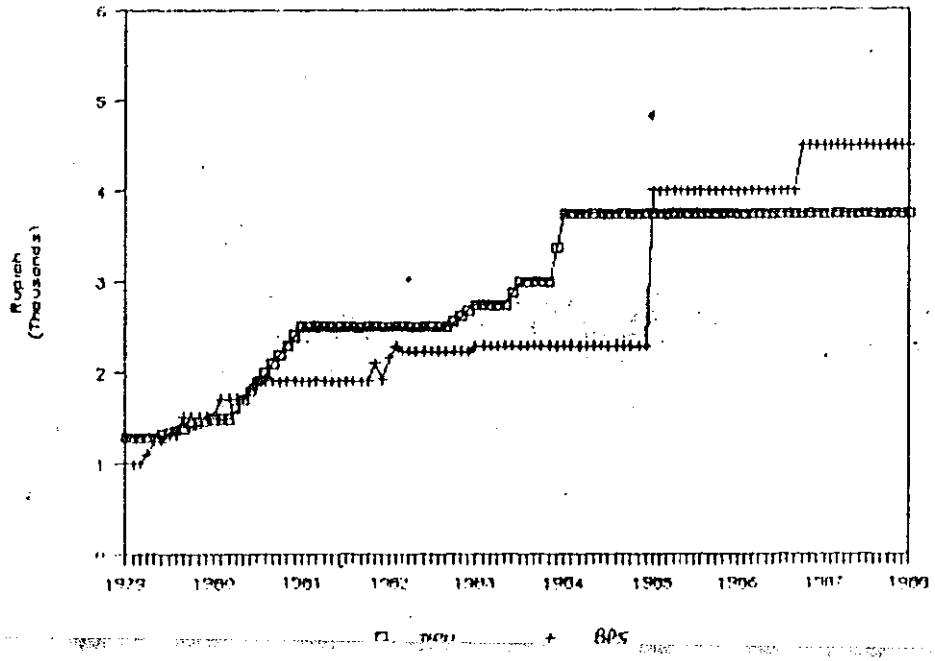


Figure 12: NOMINAL DAILY WAGES, TUKANG BATU
PALEMBANG, 1979 – 1988



similar, while in Ujung Pandang the BPS series does strange things after 1984. In Kalimantan (Figures 10 and 11) after six years of stagnation (at least according to BPS) trends in Banjarmasin are sharply divergent from 1986 onwards, while in Pontianak both series are subject to sudden large adjustments at different times but are fairly similar in trend. In Sumatra (Figures 12 to 14), apart from a few aberrations, the two schedules are fairly close together in Palembang, Padang and Medan.

It would be possible to group the cities into categories according to the closeness of the correspondence between the two series in each case. Thus Semarang, Yogyakarta, Surabaya and Mataram would be in the first category, showing the closest correspondence; Bandung, Denpasar, Manado and Medan would be in the next category, slightly further apart; and Jakarta, Ujung Pandang, Banjarmasin and Pontianak would be in the category of cases where the divergence is greatest. Conclusions might then be drawn about the differing degree to which reliance could be placed on either or both series in each of the three categories.

However, it may be dangerous to follow such a mechanical approach. The samples in both surveys are so small that correspondence or divergence in any particular case may be largely a matter of accident. It may make more sense to use the mean of the two series in each city, as shown in the third column of Appendices 1 to 14. This, at any rate, is what will be used in the calculations of real wages in the rest of this paper.

B. Which Deflator?

The obvious index to use as a deflator of nominal wages is the consumer price index for the city in question, or perhaps, better to reflect the consumption patterns of wage-earners, the consumer price index for food items. There is a problem with this index, however, as Figure 15 illustrates.

Figure 13: NOMINAL DAILY WAGES, TUKANG BATU

PADANG, 1979 – 1988

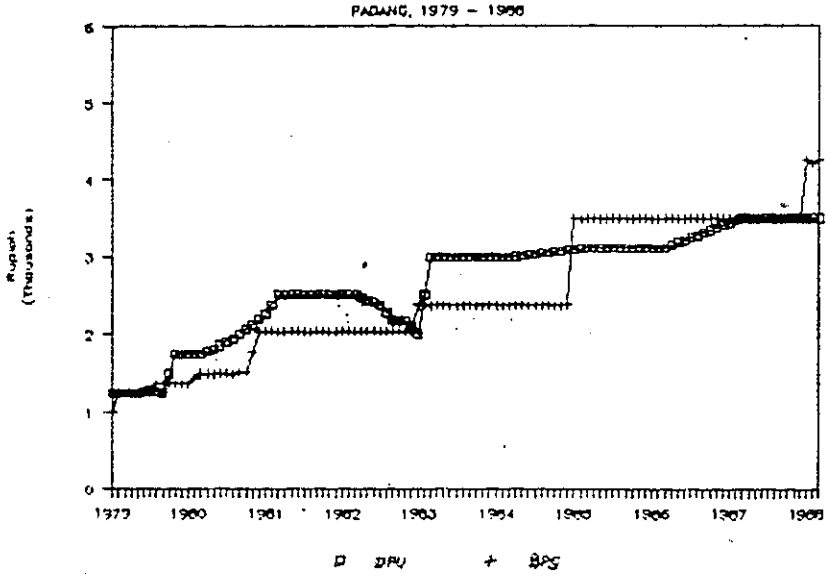


Figure 14: NOMINAL DAILY WAGES, TUKANG BATU

MEDAN, 1979 – 1988

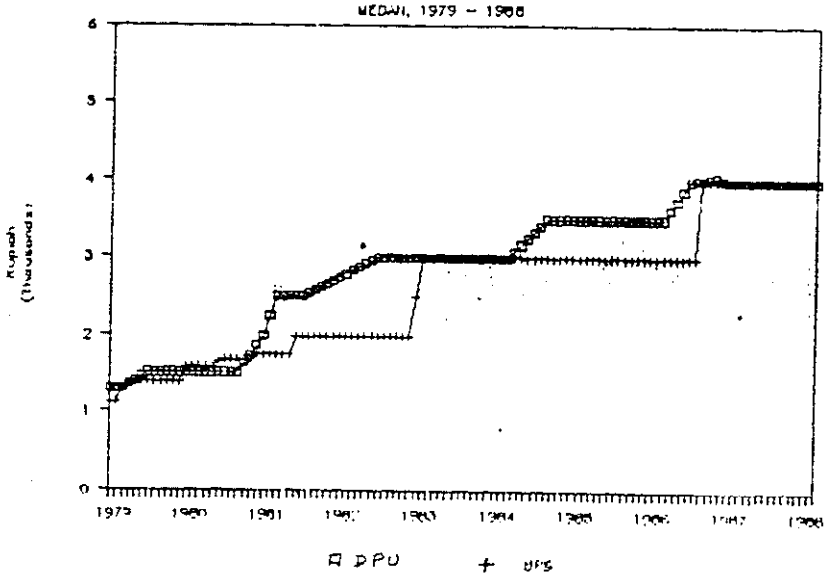
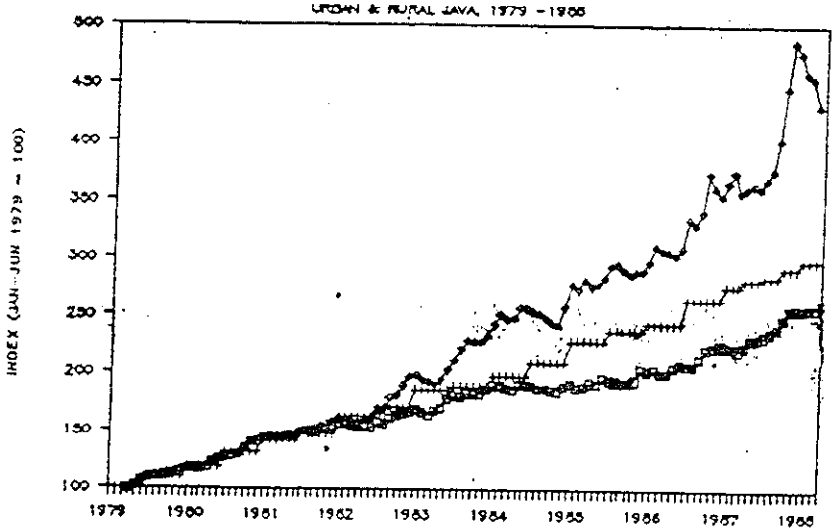


Figure 15: THREE PRICE INDICES COMPARED

URBAN & RURAL JAVA, 1979 – 1988



The graph compares the trends of three indices[5]: the consumer price index for food items in Bandung, Semarang, Surabaya and Yogyakarta (CPI Food Urban); the index of the cost of minimum physical needs (or kebutuhan fisik minimum) for a single worker in West, Central and East Java and DI Yogyakarta (KFM); and the index of consumer food prices paid by farmers in West, Central and East Java, collected during the farmers' terms of trade survey (Farmers' Food).

As can be seen, the trends of the three indices have diverged since 1982. In particular, food prices appear to have risen more than twice as fast in rural as in urban areas.[6] Given the profit-seeking propensities of traders and Java's extremely efficient transport system, such a sustained differential in rates of food price increase is difficult to believe. For this reason, the third index, of minimum physical needs, intermediate between the two, has been introduced as an alternative urban deflator.

The KFM index is, admittedly, not ideal as a deflator of construction wages in these cities. The data are collected not in these cities alone but also in a number of other towns and cities throughout each province. And the basket of goods and services regarded as minimum physical needs does not vary from province to province. However, the index appears to be the best alternative to the CPI available as a measure of the price changes particularly relevant to relatively unskilled urban wage-earners.

One interesting aspect of the KFM index is that it enables a comparison to be made of real wages in different geographical areas of Indonesia at a given point in time. Table 1 sets out such a comparison of bricklayers' wages in March 1988 (with wages for hoeing as an additional comparator).

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[5] In all cases unweighted means.

[6] The urban/rural divergence in food price trends would be even greater if Jakarta were included in the graph.

TABLE 1: GEOGRAPHICAL COMPARISON OF REAL WAGES, TUKANG BATU AND MENCANGKUL, MARCH 1988

PROVINCE/IBUKOTA	MONTHLY COST OF KFM, SINGLE WORKER (RP)	KFM INDEX (JAKARTA = 100)	NOMINAL DAILY WAGE, TUKANG BATU (RP)	NOMINAL DAILY WAGE, MENCANGKUL (RP)	REAL WAGE AT JAKARTA PRICES TUKANG BATU (RP)	REAL WAGE AT JAKARTA PRICES MENCANGKUL (RP)
E JAVA/SURABAYA	48371	79	4208	1249	5356	1590
W JAVA/BANDUNG	58819	96	4083	1460	4274	1528
W SUMATRA/PADANG	56130	91	3875	1351	4250	1482
JAKARTA	61568	100	4125	.	4125	..
N SUMATRA/MEDAN	63639	103	4000	1547	3870	1497
S SUMATRA/PALEMBANG	68201	111	4125	1232	3724	1112
W KALIMANTAN/PONTIANAK	66917	109	3900	..	3588	..
S SULAWESI/UJUNG PANDANG	68167	111	3500	1345	3161	1215
S KALIMANTAN/BANJARMASIN	66985	109	3375	1575	3102	1450
N SULAWESI/MANADO	62575	102	3125	1595	3075	1560
NTB/MATARAM	57491	93	2750	109.	2945	1157
BALI/DENPASAR	62873	102	2938	1201	2877	1176
C JAVA/SEMARANG	56006	91	2583	859	2840	945
YOGYAKARTA	46614	76	2038	590	2691	779

As might have been expected, Sumatra shows up as an area of relatively high real building wages, and the lowest levels are found in Central Java and Yogyakarta. Less expected, perhaps, is the presence of East and West Java at the top of the table. To what extent do the real wage differentials shown in the table reflect inter-regional differences in labour market conditions? A check on this is provided by the data on hoeing wages (from the BPS farmers' terms of trade survey). The ranking of the two data sets is remarkably similar. Apart from Jakarta and West Kalimantan, for which agricultural wage data are not available, only North Sulawesi and South Sumatra have substantially different rankings in the two columns. In both cases East and West Java are at or near the top of the table and Central Java and Yogyakarta are at the bottom. This suggests, as a possibility worth further investigation, that the distribution of surplus labour may be more uneven and localised than might be gathered merely from such data as regional population densities.

C. Real Construction Wages, 1979 - 1988

Appendices 1 to 14 give the details of the real construction wage series for each city, deflated first by the consumer food price index (sixth column), and secondly by the KFM index (seventh column). The data are summarised graphically in Figures 16 to 29.

In general, whichever deflator is used, these figures tend to support the view that **real wages have been falling in recent years**. This is so in 9 out of the 14 cases if the CPI is used, and in 11 out of 14 if the KFM is used, although the period over which the fall has taken place has varied. In all except two cases (Denpasar and Banjarmasin) deflation by the CPI is more favourable to real wage increases than is deflation by the KFM index, although in several cases (e.g. Surabaya, Mataram, Manado, Banjarmasin, Pontianak, Palembang, Padang) choice of deflator does not make much difference.

Figure 16: REAL WAGES, TUKANG BATU, JAKARTA

ALTERNATIVE DEFLATORS, 1979 - 1988

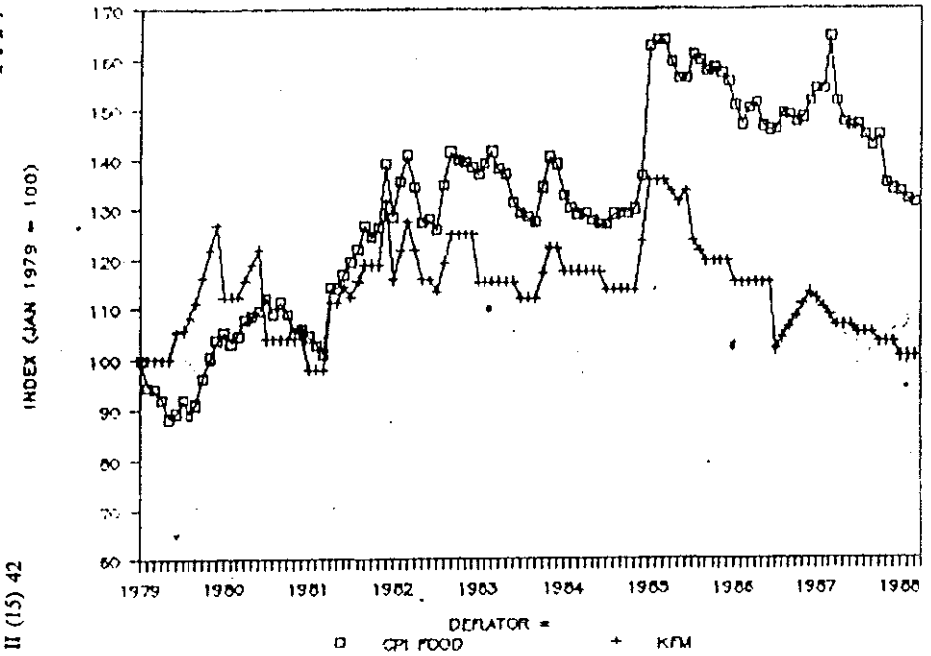


Figure 17: REAL WAGES, TUKANG BATU, BANDUNG

ALTERNATIVE DEFLATORS, 1979 - 1988

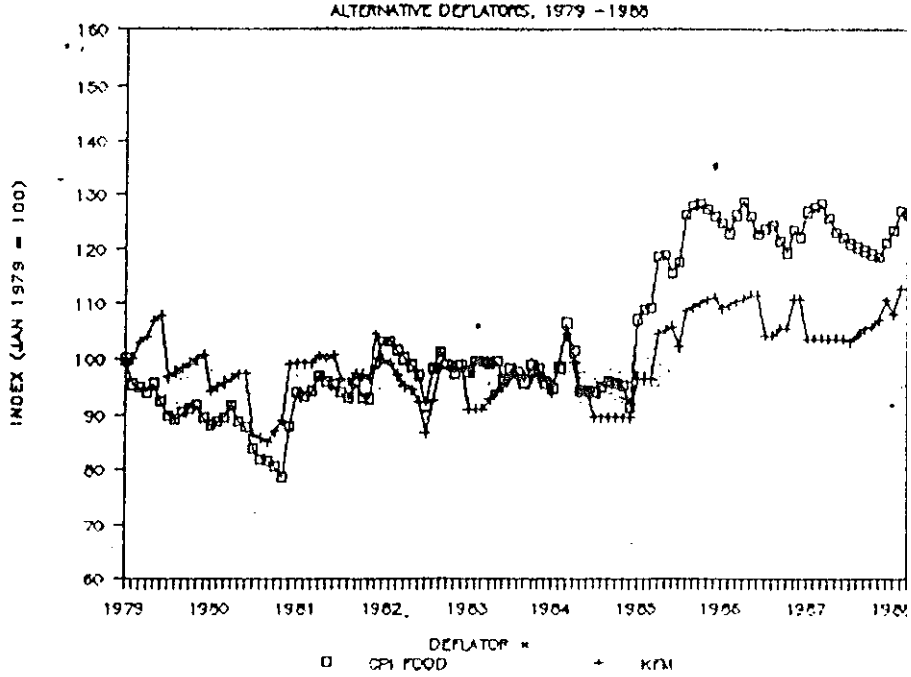


Figure 18: REAL WAGES, TUKANG BATU, SEMARANG

ALTERNATIVE DEFLATORS, 1979 - 1988

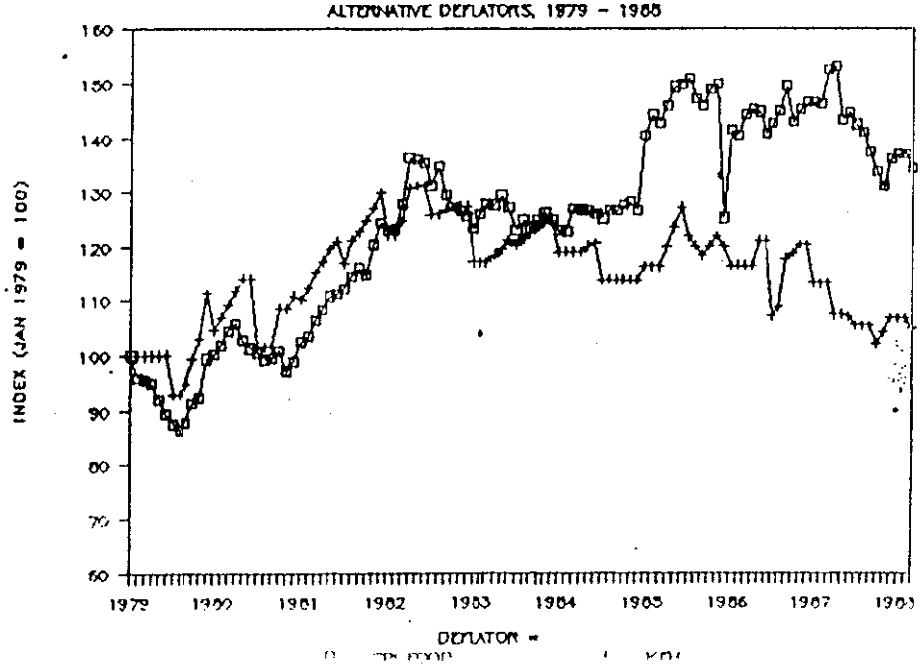


Figure 19: REAL WAGES, TUKANG BATU, YOGYAKARTA

ALTERNATIVE DEFLATORS, 1979 - 1988

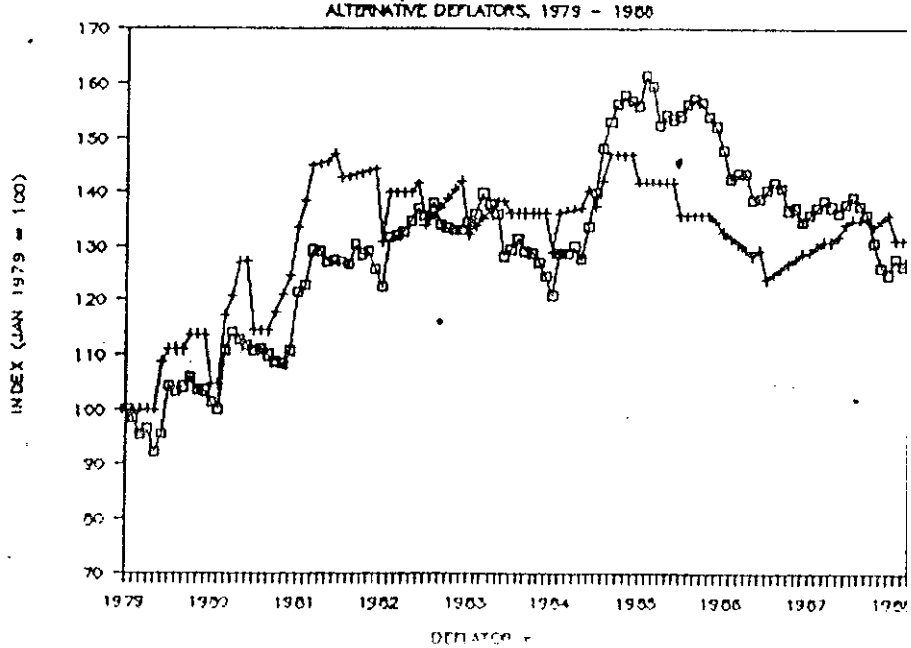


Figure 20: REAL WAGES, TUKANG BATU, SURABAYA

ALTERNATIVE DEFLATORS, 1979 - 1988

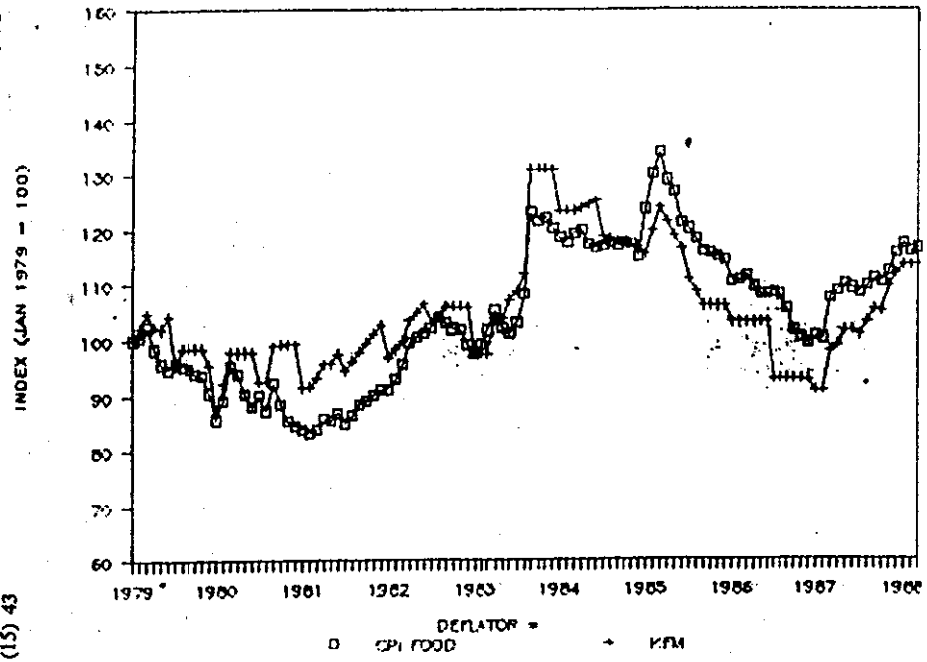


Figure 21: REAL WAGES, TUKANG BATU, DENPASAR

ALTERNATIVE DEFLATORS, 1979 - 1988

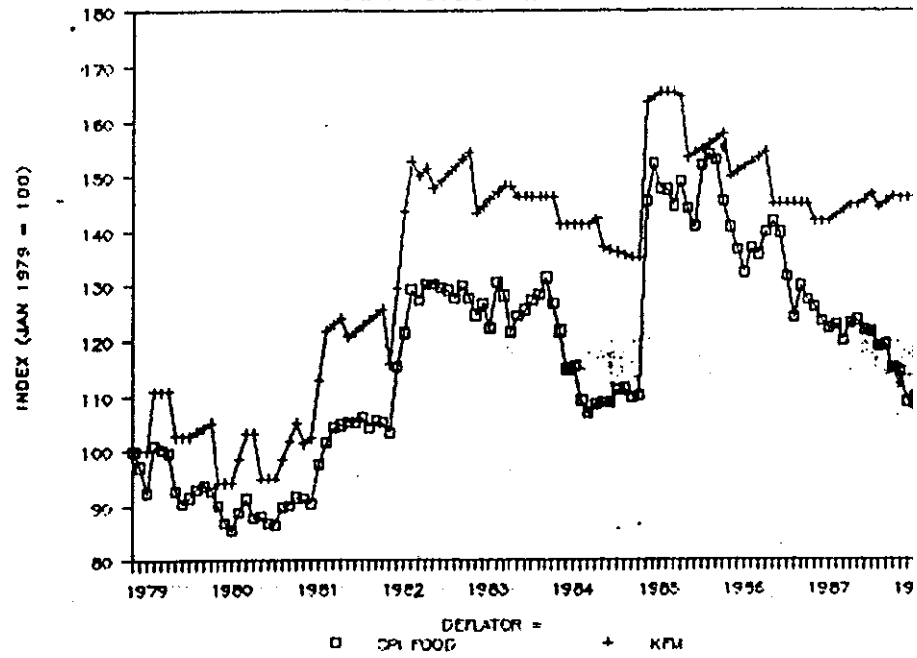


Figure 22: REAL WAGES, TUKANG BATU, MATARAM

ALTERNATIVE DEFLATORS, 1979 - 1988

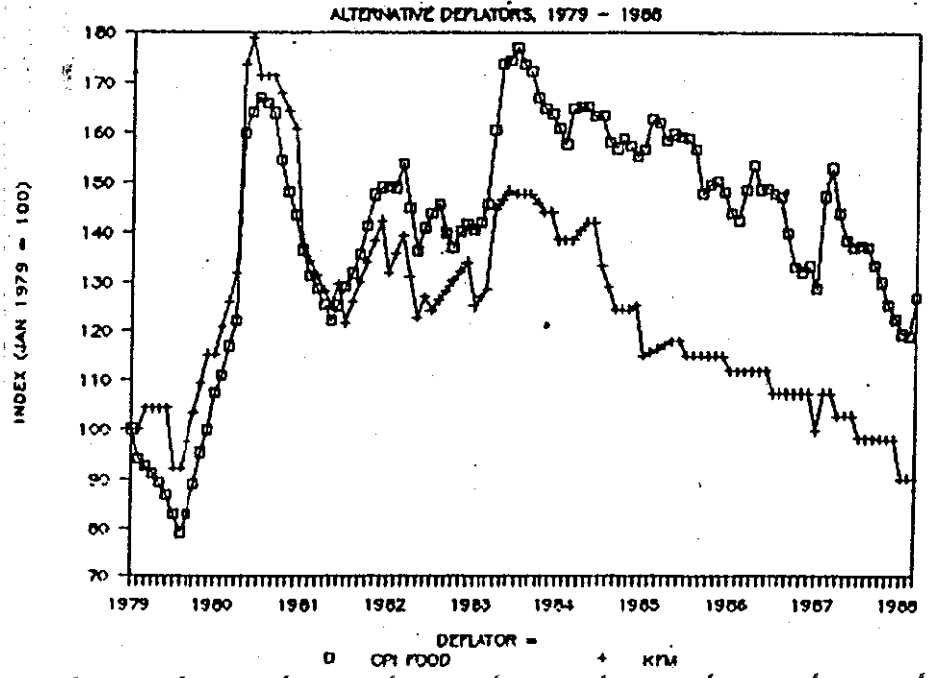
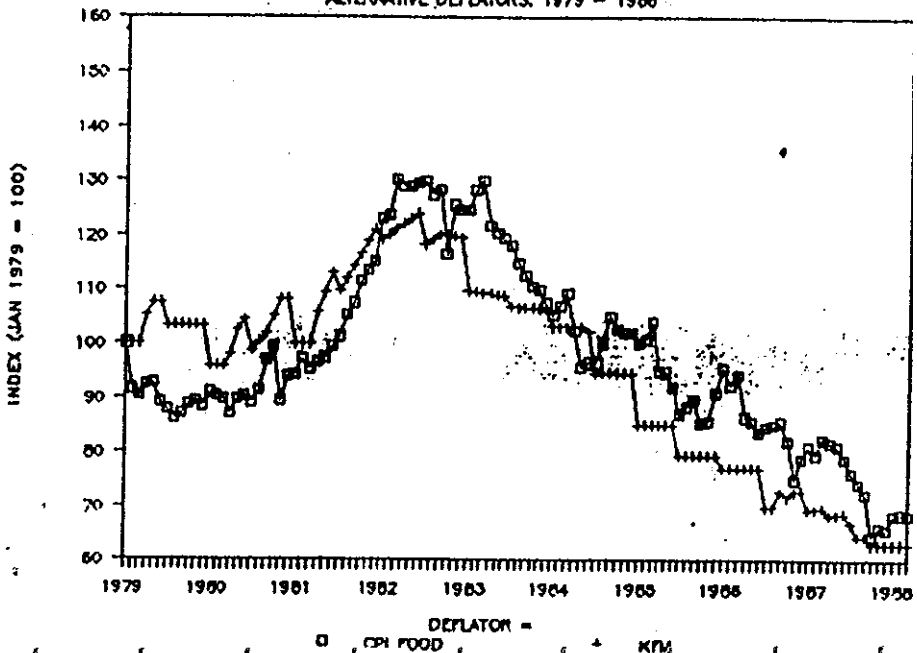


Figure 23: REAL WAGES, TUKANG BATU, MANADO

ALTERNATIVE DEFLATORS, 1979 - 1988



In the case of **Java** (Figures 16 to 20), use of the KFM deflator yields a much flatter trend for Jakarta over the whole period than does the CPI, but both show a substantial fall since 1984. In the rest of Java, the two indices are fairly close together for Yogyakarta and Surabaya; in both cities real wages appear to have fallen during 1985 and 1986, but in Surabaya, unusually, to have risen during 1987. In Java's other two provincial capitals choice of deflator is important. The KFM index suggests a real wage fall in Semarang since 1982 and only a slight rise over the whole period in Bandung, while the CPI yields more encouraging trends in recent years. **A comparison with agricultural real wage movements in Java lends more credence to the KFM index as a deflator than to the CPI.** The trend of real hoeing wages in West Java, for instance, is flat over this period, more in line with the KFM-deflated than with the CPI-deflated picture for Jakarta and Bandung in Figures 16 and 17. Similarly, real hoeing wages in Central Java have fallen steadily since 1982 and are now much lower than they were nine years earlier, again more consistent with the KFM-deflated trend for Semarang shown in Figure 18.

If the KFM index is accepted as the more accurate deflator for our purposes, then the following picture of trends in real urban construction wages **outside Java** emerges. In Denpasar (Figure 21) the trend has been quite strongly upward, though with some fluctuations. This is in line with the recent boom in tourism and in garment and other exports from Bali which has more than offset the consequences for the island of the fall in government expenditure. Nearby Mataram, however, has not shared in this boom, to judge from the slide in bricklayers' wages since 1980 (Figure 22). Nor, apparently, has Sulawesi (Figures 23 and 24); Manado shows the largest fall in such real wages over the whole period of any of the cities in the sample, while in Ujung Pandang they almost doubled between 1979 and 1984 but have fallen away sharply since then. Different parts of Kalimantan exhibit different trends (Figures 25 and 26). In Banjarmasin a steady

Figure 24: REAL WAGES, TUKANG BATU, UJUNG PANDANG

ALTERNATIVE DEFLATORS, 1979 - 1988

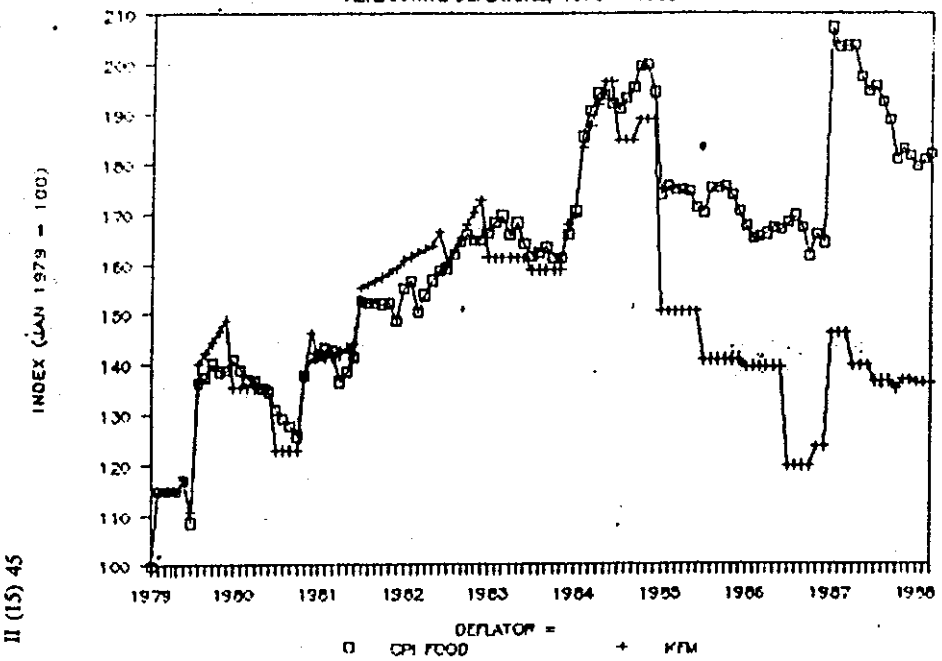


Figure 25: REAL WAGES, TUKANG BATU, BANJARMASIN

ALTERNATIVE DEFLATORS, 1979 - 1988

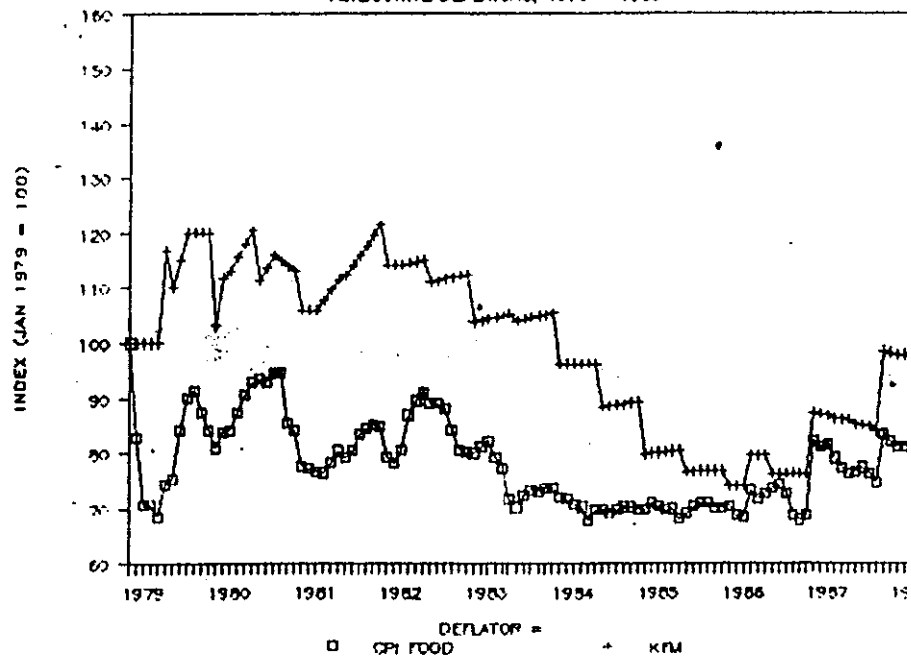


Figure 26: REAL WAGES, TUKANG BATU, PONTIANAK

ALTERNATIVE DEFLATORS, 1979 - 1988

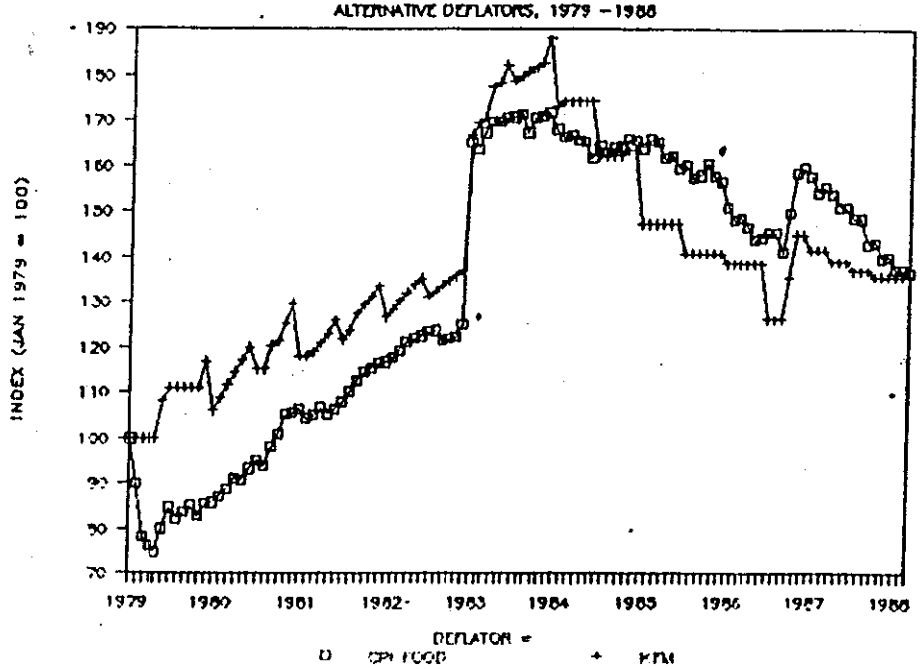


Figure 27: REAL WAGES, TUKANG BATU, PALEMBANG

ALTERNATIVE DEFLATORS, 1979 - 1988

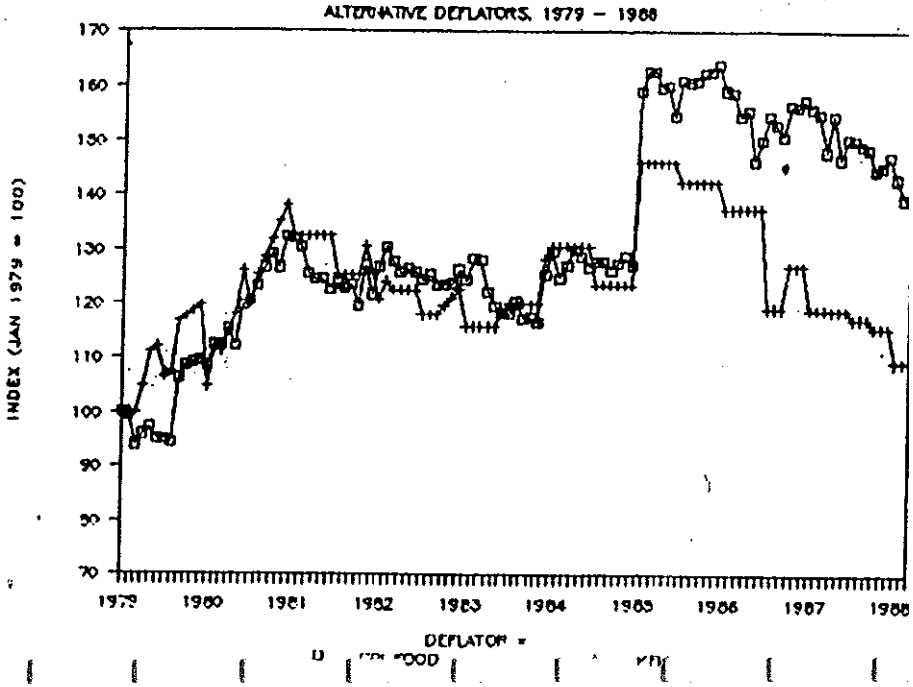


Figure 28: REAL WAGES, TUKANG BATU, PADANG

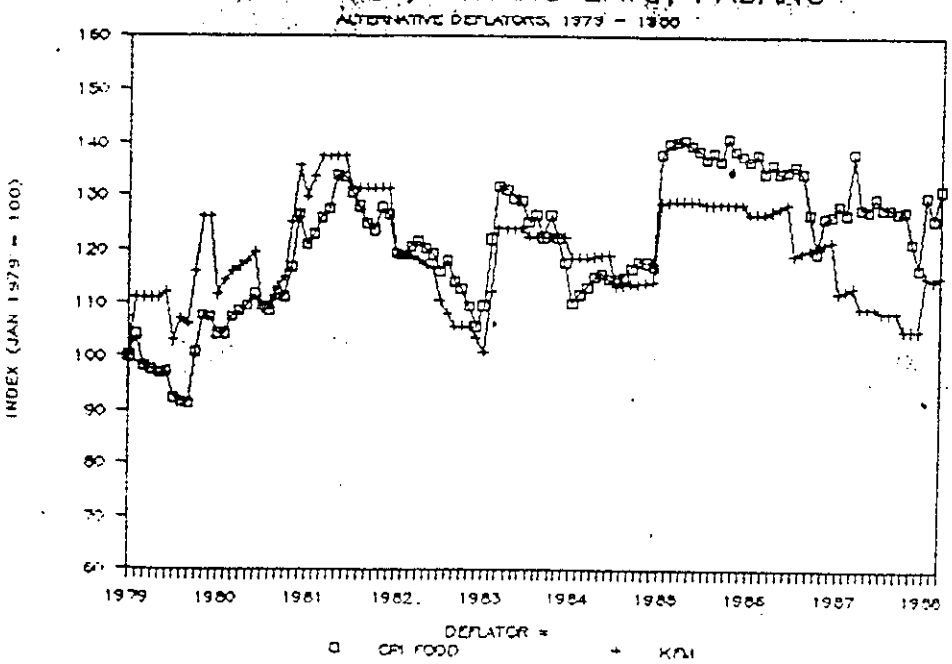
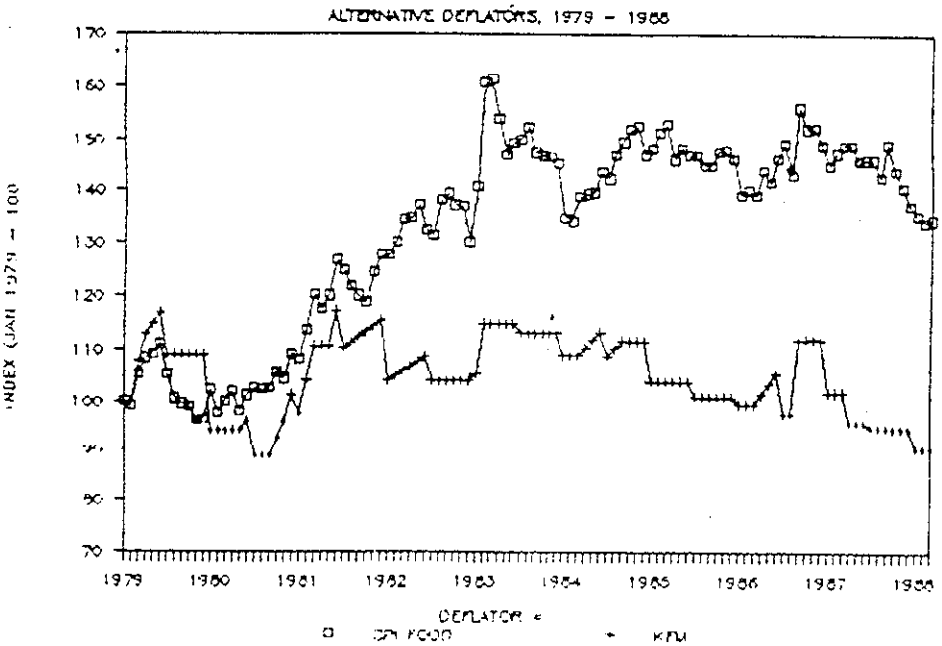


Figure 29: REAL WAGES, TUKANG BATU, MEDAN



fall since 1980 has been followed by a revival in the past two years, but still only to the levels of early 1979. In Pontianak, on the other hand, a five-year wages boom to the end of 1983 has given way to a steady decline, but real wages in March 1988 are still 40 per cent higher than they were in January 1979. In Sumatra (Figures 27 to 29), trends in Palembang and Padang resemble each other - rising in the late 1970s and early 1980s, then weakening, particularly in the last few years; in Medan, on the other hand, real construction wages appear to have been on a gentle downward slope throughout most of the period.

V. CONCLUSIONS

In general, whichever deflator is used, it seems that real wages of tukang batu have been tending to decline in recent years. If the KFM deflator is used, only Bandung, Surabaya and Banjarmasin are exceptions to this tendency; if the CPI, then Semarang and Ujung Pandang are added to the list. The issue of the choice of deflator (important to the outcome in many cases) is still unsettled. In Java a comparison with trends in real agricultural wages is possible and tends to support a preference for the KFM index over the CPI in this case. But work to develop a new index that reflects the differing consumption patterns of wage-earners in the various cities is still needed.

This is one reason why the real wage series used in this paper, based on an average of the DPU and BPS series, though an improvement over either series on its own, is not ready for immediate deployment in an early warning system. Another is the nature of the occupation covered. "Tukang batu" can mean different things in different types of project[7] but in general embodies more skill than has usually been acquired by those who inhabit the margins of the urban labour market. As Table

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[7] So can "tukang kayu", the other occupation for which there are two data series.

1 shows, the daily wage in this occupation is, on average, more than three times that of agricultural hoeing workers.[8] General labourer, or pekerja, would better represent the type of occupation open to casual, unskilled labour.

A third reason for caution in this respect is the need to be sure that the construction wage survey is asking the right questions, and with the right size of sample. Matters are complicated by the mandor system and by the prevalence of overtime. The mandor system means that the information must be obtained directly from the workers, since the project management will usually not know how much the mandor pays each member of his team. Care must be taken to confine the definition of wage to the payment received for a basic seven-hour day, with a standardised treatment of allowances for food, transport, etc. Such basic rates usually remain unchanged for long periods on particular projects - which means that samples need to be much bigger than those in the two surveys reviewed in this paper if changing conditions in this labour market are to be captured.

Nevertheless the wage series discussed in this paper are, even as they stand, of considerable analytical interest. In conjunction with agricultural wage data, they can help to throw light on interactions between urban and rural labour markets, including migration and wage determination. In conjunction with the DPU data on other building trades, they can inform analysis of occupational differentials and returns to skill acquisition. And, while new sources of information are being developed for an early warning system, it may be possible to make interim use of some of these data even for this purpose.

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[8] Though for a longer working day (7 hours compared with 5 in agriculture).

VI. REFERENCE

Godfrey, Martin and Alex Korns, 1988, An Early Warni System for Monitoring Changes in the Labour Market : a Preliminary Proposal, **DSP Research Memo # 19.**

APPENDIX 1: NOMINAL AND REAL WAGES, TUKANG BATU, JAKARTA, 1979 - 1985

	DPU DATA: NOMINAL DAILY WAGES (RUPIAH)	BPS DATA: NOMINAL DAILY WAGES (RUPIAH)	AVERAGE NOMINAL DAILY WAGES (RUPIAH)	CPI FOOD (JAN-JUN 79 = 100)	KFM INDEX SINGLE WORKER (JAN-JUN 79 = 100)	AVERAGE BPS/DPU REAL WAGES (DEF=CPI)	AVERAGE BPS/DPU REAL WAGES (DEF=KFM)
1979 Jan	1500	1000	1250	92	100	100	100
Feb	1500	1000	1250	97	100	95	100
Mar	1500	1000	1250	98	100	94	100
Apr	1500	1000	1250	100	100	92	100
Mei	1500	1000	1250	104	100	88	100
Jun	1563	1071	1317	109	100	89	105
Jul	1625	1143	1384	111	105	92	106
Aug	1625	1214	1420	117	105	89	108
Sep	1625	1286	1455	118	105	91	111
Oct	1688	1357	1522	116	105	96	116
Nov	1750	1429	1589	117	105	100	121
Dec	1813	1500	1656	117	105	104	127
1980 Jan	1875	1500	1688	118	120	105	112
Feb	1875	1500	1688	120	120	103	112
Mar	1875	1500	1688	119	120	105	112
Apr	1969	1500	1734	119	120	108	116
Mei	2063	1500	1781	121	120	109	119
Jun	2156	1500	1828	123	120	110	122
Jul	2250	1500	1875	123	144	112	104
Aug	2250	1500	1875	127	144	109	104
Sep	2250	1500	1875	124	144	111	104
Oct	2250	1500	1875	127	144	109	104
Nov	2250	1500	1875	131	144	105	104
Dec	2250	1500	1875	130	144	106	104
1981 Jan	2250	1500	1875	132	153	104	98
Feb	2250	1500	1875	134	153	103	98
Mar	2250	1500	1875	137	153	101	98
Apr	2250	2000	2125	137	153	114	111
Mei	2250	2000	2125	137	153	114	111
Jun	2375	2000	2188	133	153	117	114
Jul	2500	2000	2250	139	160	119	112
Aug	2625	2000	2313	140	160	122	116
Sep	2750	2000	2375	138	160	127	119
Oct	2750	2000	2375	141	160	124	119
Nov	2750	2000	2375	139	160	125	119
Dec	2750	2500	2625	139	160	139	131
1982 Jan	2750	2250	2500	143	173	129	116
Feb	3000	2250	2625	142	173	136	122
Mar	3250	2250	2750	144	173	14.	127
Apr	3000	2250	2625	144	173	135	122
Mei	2750	2250	2500	145	173	127	116
Jun	2750	2250	2500	144	173	129	116
Jul	2750	2250	2500	146	176	125	113
Aug	3000	2250	2625	143	176	135	119
Sep	3250	2250	2750	143	176	141	125
Oct	3250	2250	2750	145	176	140	125
Nov	3250	2250	2750	145	176	139	125
Dec	3250	2250	2750	146	176	138	125
1983 Jan	3250	2250	2750	148	191	137	115

Feb	3250	2250	2750	146	191	139	115
Mar	3250	2250	2750	143	191	141	115
Apr	3250	2250	2750	147	191	138	115
Mei	3250	2250	2750	148	191	137	115
Jun	3250	2250	2750	154	191	131	115
Jul	3250	2250	2750	157	196	129	112
Aug	3250	2250	2750	158	196	128	112
Sep	3250	2250	2750	159	196	127	112
Oct	3500	2250	2875	158	196	134	117
Nov	3750	2250	3000	157	196	140	122
Dec	3750	2250	3000	159	196	139	122
1984 Jan	3750	2250	3000	166	204	133	117
Feb	3750	2250	3000	170	204	130	117
Mar	3750	2250	3000	171	204	129	117
Apr	3750	2250	3000	171	204	129	117
Mei	3750	2250	3000	173	204	128	117
Jun	3750	2250	3000	174	204	127	117
Jul	3750	2250	3000	174	211	127	114
Aug	3750	2250	3000	171	211	129	114
Sep	3750	2250	3000	171	211	129	114
Oct	3750	2250	3000	171	211	129	114
Nov	3750	2250	3000	170	211	130	114
Dec	4250	2250	3250	175	211	137	123
1985 Jan	4750	3000	3875	175	229	163	136
Feb	4750	3000	3875	174	229	164	136
Mar	4750	3000	3875	174	229	164	136
Apr	4625	3000	3813	176	229	160	133
Mei	4500	3000	3750	177	229	156	131
Jun	4625	3000	3813	180	229	156	133
Jul	4750	3000	3875	177	251	161	123
Aug	4625	3000	3813	175	251	160	121
Sep	4500	3000	3750	175	251	158	119
Oct	4500	3000	3750	174	251	158	119
Nov	4500	3000	3750	175	251	158	119
Dec	4500	3000	3750	177	251	156	119
1986 Jan	4500	3000	3750	183	261	151	115
Feb	4500	3000	3750	188	261	147	115
Mar	4500	3000	3750	184	261	150	115
Apr	4500	3000	3750	182	261	151	115
Mei	4500	3000	3750	188	261	146	115
Jun	4500	3000	3750	189	261	146	115
Jul	4500	3000	3750	189	295	146	102
Aug	4667	3000	3833	189	295	149	104
Sep	4833	3000	3917	194	295	149	106
Oct	5000	3000	4000	200	295	147	108
Nov	5167	3000	4083	203	295	148	111
Dec	5333	3000	4167	202	295	152	113
1987 Jan	5500	3000	4250	203	304	154	112
Feb	5375	3000	4188	200	304	154	110
Mar	5250	3000	4125	195	304	165	109
Apr	5250	3000	4125	200	309	152	107
Mei	5250	3000	4125	206	309	147	107
Jun	5250	3000	4125	207	309	147	107
Jul	5250	3000	4125	207	314	147	105
Aug	5250	3000	4125	210	314	145	105
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Oct	5250	3000	4125	210	320	145	103
Nov	5250	3000	4125	225	320	135	103
Dec	5250	3000	4125	227	320	134	103
1988 Jan	5250	3000	4125	228	329	133	100
Feb	5250	3000	4125	230	329	132	100
Mar	5250	3000	4125	231	329	131	100
Apr		3000		231			
Mei				235			

APPENDIX 2: NOMINAL AND REAL WAGES, TUKANG BATU, BANDUNG, 1979 - 1988

	DPU DATA: NOMINAL DAILY WAGES (RUPIAH)	BPS DATA: NOMINAL DAILY WAGES (RUPIAH)	AVERAGE NOMINAL DAILY WAGES (RUPIAH)	CPI FOOD (JAN-JUN 79 = 100)	KFM INDEX SINGLE WORKER (JAN-JUN 79 = 100)	AVERAGE BPS/DPU REAL WAGES (DEF=CPI)	AVERAGE BPS/DPU REAL WAGES (DEF=KFM)
1979 Jan	1300	1000	1150	92	100	100	100
Feb	1300	1000	1150	96	100	95	100
Mar	1300	1071	1185	100	100	95	103
Apr	1321	1071	1196	102	100	94	104
Mei	1343	1118	1230	103	100	95	107
Jun	1364	1118	1241	107	100	92	108
Jul	1386	1118	1252	111	113	90	97
Aug	1407	1118	1262	113	113	89	97
Sep	1429	1118	1273	113	113	90	98
Oct	1450	1118	1284	113	113	91	99
Nov	1471	1118	1295	113	113	92	100
Dec	1493	1118	1305	117	113	89	101
1980 Jan	1514	1118	1316	119	121	88	94
Feb	1536	1118	1327	120	121	89	95
Mar	1557	1118	1337	119	121	89	96
Apr	1579	1118	1348	117	121	92	97
Mei	1600	1118	1359	122	121	89	97
Jun	1575	1141	1358	124	121	88	97
Jul	1550	1141	1346	128	135	84	86
Aug	1525	1141	1333	130	135	82	86
Sep	1500	1141	1321	129	135	82	85
Oct	1563	1141	1352	134	135	81	87
Nov	1625	1141	1383	141	135	79	89
Dec	1938	1141	1539	140	135	88	99
1981 Jan	2250	1141	1696	144	149	94	99
Feb	2250	1141	1696	145	149	93	99
Mar	2250	1141	1696	144	149	94	99
Apr	2234	1200	1717	141	149	97	101
Mei	2219	1200	1709	142	149	96	100
Jun	2203	1233	1718	144	149	95	101
Jul	2188	1250	1719	146	155	94	96
Aug	2172	1250	1711	147	155	93	96
Sep	2156	1318	1737	145	155	95	97
Oct	2141	1318	1729	148	155	93	97
Nov	2125	1318	1722	148	155	93	97
Dec	2400	1330	1865	150	155	99	105
1982 Jan	2675	1364	2019	156	176	103	100
Feb	2592	1420	2006	155	176	103	99
Mar	2508	1420	1964	155	176	101	97
Apr	2425	1420	1923	154	176	100	95
Mei	2342	1477	1909	155	176	99	94
Jun	2258	1477	1868	154	176	97	92
Jul	2175	1477	1826	159	183	91	87
Aug	2425	1477	1951	159	183	98	93
Sep	2675	1477	2076	164	183	101	98
Oct	2675	1477	2076	168	183	99	98
Nov	2675	1477	2076	170	183	97	98
Dec	2675	1477	2076	168	183	99	98
1983 Jan	2675	1477	2076	170	199	98	91

	Feb	2675	1477	2076	167	199	100	91
	Mar	2675	1477	2076	167	199	100	91
	Apr	2756	1477	2117	171	199	99	93
	Mei	2817	1477	2147	172	199	99	94
	Jun	2863	1477	2170	180	199	96	95
	Jul	3000	1477	2239	182	201	98	97
	Aug	3000	1477	2239	184	201	97	97
	Sep	3000	1477	2239	187	201	96	97
	Oct	3000	1477	2239	181	201	99	97
	Nov	3000	1477	2239	182	201	98	97
	Dec	3000	1477	2239	187	201	96	97
1984	Jan	3000	1477	2239	189	207	95	94
	Feb	3250	1477	2364	192	207	98	99
	Mar	3500	1477	2439	187	207	107	104
	Apr	3250	1477	2364	186	207	102	99
	Mei	3000	1477	2239	190	207	94	94
	Jun	3000	1477	2239	190	207	94	94
	Jul	3000	1477	2239	190	218	94	89
	Aug	3000	1477	2239	188	218	95	89
	Sep	3000	1477	2239	186	218	96	89
	Oct	3000	1477	2239	187	218	96	89
	Nov	3000	1477	2239	188	218	95	89
	Dec	3000	1477	2239	196	218	91	89
1985	Jan	3000	2250	2625	196	237	107	96
	Feb	3000	2250	2625	192	237	109	96
	Mar	3000	2250	2625	192	237	109	96
	Apr	3036	2667	2851	192	237	118	105
	Mei	3071	2667	2869	193	237	119	105
	Jun	3107	2667	2887	199	237	116	106
	Jul	3143	2667	2905	198	247	117	102
	Aug	3179	3000	3089	195	247	126	109
	Sep	3214	3000	3107	194	247	128	109
	Oct	3250	3000	3125	195	247	128	110
	Nov	3286	3000	3143	197	247	127	111
	Dec	3321	3000	3161	200	247	126	111
1986	Jan	3357	3083	3220	206	257	125	109
	Feb	3393	3083	3238	210	257	123	110
	Mar	3429	3083	3256	206	257	126	110
	Apr	3464	3083	3274	203	257	129	111
	Mei	3500	3083	3292	209	257	126	112
	Jun	3500	3083	3292	214	257	123	112
	Jul	3500	3083	3292	212	274	124	104
	Aug	3500	3083	3292	211	274	124	104
	Sep	3500	3167	3333	219	274	122	106
	Oct	3500	3167	3333	223	274	119	106
	Nov	3500	3500	3500	227	274	123	111
	Dec	3500	3500	3500	229	274	122	111
1987	Jan	3500	3667	3583	226	300	127	104
	Feb	3500	3667	3583	224	300	128	104
	Mar	3500	3667	3583	223	300	128	104
	Apr	3500	3667	3583	228	300	126	104
	Mei	3500	3667	3583	232	300	125	104
	Jun	3500	3667	3583	235	300	122	104
	Jul	3500	3667	3583	237	302	121	103
	Aug	3583	3667	3625	241	302	120	104
	Sep	3667	3667	3667	245	302	120	106

	Oct	3750	3667	3708	249	304	119	106
	Nov	3833	3667	3750	253	304	118	107
	Dec	3917	3833	3875	256	304	121	111
1988	Jan	4000	3833	3917	254	315	123	108
	Feb	4000	4167	4083	257	315	127	113
	Mar	4000	4167	4083	258	315	126	113
	Apr		4167		263			
	Mei				265			

APPENDIX 3: NOMINAL AND REAL WAGES, TUKANG BATU, SEMARANG, 1979 - 1988

	DPU DATA: NOMINAL DAILY WAGES (RUPIAH)	BPS DATA: NOMINAL DAILY WAGES (RUPIAH)	AVERAGE NOMINAL DAILY WAGES (RUPIAH)	CPI FOOD (JAN-JUN 79 = 100)	KFM INDEX SINGLE WORKER (JAN-JUN 79 = 100)	AVERAGE BPS/DPU REAL WAGES (DEF=CPI)	AVERAGE BPS/DPU REAL WAGES (DEF=KFM)
1979 Jan	750	775	762	95	100	100	100
Feb	750	775	762	99	100	96	100
Mar	750	775	762	99	100	96	100
Apr	750	775	762	100	100	95	100
Mei	750	775	762	103	100	92	100
Jun	750	775	762	106	100	89	100
Jul	750	775	762	108	108	87	93
Aug	750	775	762	109	108	86	93
Sep	750	807	779	110	108	88	95
Oct	794	838	816	111	108	91	99
Nov	838	854	846	114	108	92	103
Dec	881	949	915	114	108	99	111
1980 Jan	925	949	937	116	118	100	104
Feb	969	949	959	117	118	102	107
Mar	1013	949	981	118	118	103	109
Apr	1056	949	1003	118	118	106	112
Mei	1100	949	1024	124	118	102	114
Jun	1100	949	1024	125	118	101	114
Jul	1100	949	1024	126	132	101	102
Aug	1100	949	1024	128	132	99	102
Sep	1100	949	1024	128	132	99	102
Oct	1100	1091	1096	135	132	101	109
Nov	1100	1091	1096	140	132	97	109
Dec	1146	1091	1119	140	132	99	111
1981 Jan	1192	1170	1181	143	141	102	110
Feb	1238	1170	1204	144	141	102	112
Mar	1283	1186	1235	144	141	107	115
Apr	1329	1186	1253	144	141	108	117
Mei	1375	1186	1281	143	141	111	119
Jun	1408	1186	1297	145	141	111	121
Jul	1442	1186	1314	145	147	112	117
Aug	1475	1249	1362	147	147	115	121
Sep	1508	1249	1379	147	147	116	123
Oct	1542	1265	1403	151	147	115	125
Nov	1575	1281	1428	147	147	120	127
Dec	1575	1344	1460	146	147	124	130
1982 Jan	1575	1423	1499	151	161	123	122
Feb	1575	1423	1499	151	161	123	122
Mar	1575	1487	1531	148	161	128	125
Apr	1581	1628	1605	146	161	136	131
Mei	1588	1628	1608	146	161	135	131
Jun	1594	1628	1611	147	161	136	131
Jul	1600	1628	1614	152	168	131	126
Aug	1606	1628	1617	149	168	135	126
Sep	1613	1643	1628	156	168	130	127
Oct	1619	1643	1631	159	168	127	127
Nov	1625	1643	1634	160	168	127	127
Dec	1625	1643	1634	161	168	126	127
1983 Jan	1625	1643	1634	164	183	123	117

Feb	1625	1643	1634	161	183	126	117
Mar	1625	1643	1634	158	183	128	117
Apr	1656	1643	1650	160	183	128	118
Mei	1688	1643	1665	160	183	129	119
Jun	1719	1657	1688	164	183	127	121
Jul	1750	1657	1703	172	186	123	120
Aug	1781	1657	1719	171	186	125	121
Sep	1813	1657	1735	174	186	124	123
Oct	1844	1657	1750	174	186	125	124
Nov	1875	1657	1766	173	186	126	125
Dec	1875	1657	1766	175	186	125	125
1984 Jan	1875	1657	1766	178	194	123	119
Feb	1875	1657	1766	178	194	123	119
Mar	1875	1657	1766	172	194	127	119
Apr	1875	1657	1766	173	194	127	119
Mei	1875	1684	1779	174	194	127	120
Jun	1875	1697	1786	176	194	126	120
Jul	1875	1697	1786	177	206	125	114
Aug	1875	1697	1786	175	206	127	114
Sep	1875	1697	1786	175	206	127	114
Oct	1875	1697	1786	174	206	128	114
Nov	1875	1697	1786	173	206	128	114
Dec	1875	1697	1786	175	206	127	114
1985 Jan	1875	2083	1979	175	223	141	116
Feb	1875	2083	1979	170	223	144	116
Mar	1875	2083	1979	172	223	143	116
Apr	2000	2083	2042	173	223	146	120
Mei	2125	2083	2104	175	223	149	124
Jun	2250	2083	2167	179	223	150	127
Jul	2250	2083	2167	178	233	151	122
Aug	2188	2083	2135	180	233	147	120
Sep	2125	2083	2104	179	233	146	118
Oct	2188	2083	2135	178	233	149	120
Nov	2250	2083	2167	179	233	150	122
Dec	2188	2083	2135	212	233	125	120
1986 Jan	2125	2083	2104	185	237	141	116
Feb	2125	2083	2104	186	237	140	116
Mar	2125	2083	2104	181	237	144	116
Apr	2125	2083	2104	180	237	145	116
Mei	2125	2250	2188	187	237	145	121
Jun	2125	2250	2188	193	237	141	121
Jul	2125	2250	2188	190	268	143	107
Aug	2188	2250	2219	190	268	145	109
Sep	2250	2558	2404	199	268	149	118
Oct	2313	2533	2423	210	268	143	119
Nov	2375	2533	2454	209	268	145	120
Dec	2375	2533	2454	208	268	147	120
1987 Jan	2375	2517	2446	207	283	147	113
Feb	2375	2517	2446	207	283	146	113
Mar	2375	2517	2446	199	283	152	113
Apr	2375	2517	2446	198	298	153	108
Mei	2375	2517	2446	212	298	143	108
Jun	2375	2500	2438	209	298	145	107
Jul	2375	2500	2438	212	303	143	106
Aug	2375	2500	2438	214	303	141	106

	Oct	2406	2583	2495	231	320	134	102
	Nov	2438	2650	2544	241	320	131	104
	Dec	2469	2750	2609	237	320	136	107
1988	Jan	2500	2750	2625	237	323	137	107
	Feb	2500	2750	2625	237	323	137	107
	Mar	2500	2667	2583	235	323	135	105
	Apr		2750		238			
	Mei				243			

APPENDIX 4: NOMINAL AND REAL WAGES, TUKANG BATU, YOGYAKARTA, 1979 - 1988

	DPU DATA: NOMINAL DAILY WAGES (RUPIAH)	BPS DATA: NOMINAL DAILY WAGES (RUPIAH)	AVERAGE NOMINAL DAILY WAGES (RUPIAH)	CPI FOOD (JAN-JUN 79 = 100)	KFM INDEX SINGLE WORKER (JAN-JUN 79 = 100)	AVERAGE BPS/DPU REAL WAGES (DEF=CPI)	AVERAGE BPS/DPU REAL WAGES (DEF=KFM)
1979 Jan	500	650	575	95	100	100	100
Feb	500	650	575	96	100	99	100
Mar	500	650	575	99	100	95	100
Apr	500	650	575	98	100	96	100
Mei	500	650	575	103	100	92	100
Jun	550	700	625	108	100	95	109
Jul	600	767	683	108	107	104	111
Aug	600	767	683	109	107	103	111
Sep	600	767	683	108	107	104	111
Oct	600	800	700	109	107	106	114
Nov	600	800	700	111	107	104	114
Dec	600	800	700	112	107	103	114
1980 Jan	600	800	700	114	116	101	105
Feb	600	800	700	115	116	100	105
Mar	600	967	783	116	116	111	117
Apr	650	967	808	117	116	114	121
Mei	700	1000	850	124	116	113	127
Jun	700	1000	850	125	116	112	127
Jul	700	1000	850	126	129	111	114
Aug	700	1000	850	126	129	111	114
Sep	700	1000	850	127	129	110	114
Oct	750	1000	875	133	129	109	118
Nov	800	1000	900	137	129	108	121
Dec	850	1000	925	138	129	111	125
1981 Jan	900	1183	1042	141	136	122	134
Feb	950	1209	1079	145	136	123	138
Mar	1000	1260	1130	144	136	129	145
Apr	1005	1260	1133	145	136	129	145
Mei	1010	1260	1135	147	136	127	146
Jun	1015	1278	1146	148	136	127	147
Jul	1020	1278	1149	149	140	127	143
Aug	1025	1278	1151	150	140	127	143
Sep	1030	1278	1154	146	140	130	143
Oct	1035	1278	1156	148	140	129	144
Nov	1040	1278	1159	148	140	129	144
Dec	1045	1278	1161	152	140	126	144
1982 Jan	1050	1278	1164	157	155	123	131
Feb	1050	1437	1244	156	155	132	140
Mar	1050	1437	1244	155	155	132	140
Apr	1050	1437	1244	154	155	133	140
Mei	1050	1437	1244	152	155	135	140
Jun	1081	1437	1259	152	155	137	142
Jul	1113	1437	1275	155	166	136	134
Aug	1144	1437	1291	154	166	133	136
Sep	1175	1437	1306	161	166	134	137
Oct	1206	1437	1322	164	166	133	139
Nov	1238	1437	1337	166	166	133	140
Dec	1269	1437	1353	168	166	133	142
1983 Jan	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	134	132

Feb	1331	1437	1384	168	180	136	134
Mar	1363	1437	1400	165	180	140	135
Apr	1394	1437	1416	169	180	138	137
Mei	1425	1437	1431	173	180	136	135
Jun	1425	1437	1431	184	180	128	133
Jul	1425	1437	1431	181	183	130	136
Aug	1425	1437	1431	179	183	132	136
Sep	1425	1437	1431	183	183	129	136
Oct	1425	1437	1431	183	183	129	136
Nov	1425	1437	1431	185	183	127	136
Dec	1425	1437	1431	189	183	125	136
1984 Jan	1425	1437	1431	195	193	121	137
Feb	1431	1597	1514	194	193	129	136
Mar	1438	1597	1517	194	193	129	137
Apr	1444	1597	1520	193	193	130	137
Mei	1450	1597	1524	197	193	128	137
Jun	1450	1673	1562	193	193	134	141
Jul	1450	1825	1638	193	207	140	137
Aug	1563	1825	1694	189	207	148	142
Sep	1675	1825	1750	189	207	153	147
Oct	1675	1825	1750	185	207	156	147
Nov	1675	1825	1750	183	207	158	147
Dec	1675	1825	1750	184	207	157	147
1985 Jan	1675	2000	1838	194	225	156	142
Feb	1675	2000	1838	188	225	161	142
Mar	1675	2000	1838	190	225	160	142
Apr	1675	2000	1838	199	225	152	142
Mei	1675	2000	1838	197	225	154	142
Jun	1675	2000	1838	197	225	153	142
Jul	1675	2000	1838	197	235	154	136
Aug	1675	2000	1838	194	235	156	136
Sep	1675	2000	1838	193	235	157	136
Oct	1675	2000	1838	194	235	157	136
Nov	1675	2000	1838	197	235	154	136
Dec	1646	2000	1823	199	235	157	135
1986 Jan	1617	2000	1808	202	237	148	133
Feb	1588	2000	1794	208	237	143	132
Mar	1558	2000	1779	205	237	143	130
Apr	1529	2000	1765	203	237	144	129
Mei	1500	2000	1750	208	237	139	128
Jun	1527	2000	1764	209	237	139	129
Jul	1554	2000	1777	209	249	141	124
Aug	1581	2000	1791	208	249	142	125
Sep	1608	2000	1804	211	249	141	126
Oct	1635	2000	1818	219	249	137	127
Nov	1662	2000	1831	220	249	137	128
Dec	1690	2000	1845	226	249	135	129
1987 Jan	1717	2000	1858	226	250	136	129
Feb	1744	2000	1872	225	250	137	130
Mar	1771	2000	1885	224	250	139	131
Apr	1798	2000	1899	228	252	137	131
Mei	1825	2000	1913	231	252	136	132
Jun	1888	2000	1944	232	252	138	134
Jul	1950	2000	1975	234	255	139	135
Aug	1950	2000	1975	237	255	138	135
Sep	1950	2000	1975	240	255	136	135

	Oct	1981	2000	1991	251	259	131	134
	Nov	2013	2000	2006	262	259	126	135
	Dec	2044	2000	2022	267	259	125	136
1988	Jan	2075	2000	2038	263	270	128	131
	Feb	2075	2000	2038	266	270	126	131
	Mar	2075	2000	2038	264	270	127	131
	Apr	2063	2000	2031	269			
	Mei	2050			270			

APPENDIX 5: NOMINAL AND REAL WAGES, TUKANG BATU, SURABAYA, 1979 - 1988

	DPU DATA: NOMINAL DAILY WAGES (RUPIAH)	BPS DATA: NOMINAL DAILY WAGES (RUPIAH)	AVERAGE NOMINAL DAILY WAGES (RUPIAH)	CPI FOOD (JAN-JUN 79 = 100)	KFM INDEX SINGLE WORKER (JAN-JUN 79 = 100)	AVERAGE BPS/DPU REAL WAGES (DEF=CPI)	AVERAGE BPS/DPU REAL WAGES (DEF=KFM)
1979 Jan	1300	1283	1292	96	100	100	100
Feb	1363	1283	1323	98	100	101	102
Mar	1425	1283	1354	98	100	102	105
Apr	1363	1283	1323	100	100	98	102
Mei	1300	1335	1317	102	100	96	102
Jun	1363	1335	1349	106	100	95	104
Jul	1425	1335	1380	107	112	96	95
Aug	1425	1430	1427	111	112	95	98
Sep	1425	1430	1427	112	112	95	98
Oct	1425	1430	1427	113	112	94	98
Nov	1425	1430	1427	113	112	94	98
Dec	1338	1430	1384	114	112	91	95
1980 Jan	1250	1430	1340	116	120	86	86
Feb	1425	1430	1427	119	120	89	92
Mar	1600	1430	1515	118	120	95	98
Apr	1600	1430	1515	120	120	94	98
Mei	1600	1430	1515	125	120	90	98
Jun	1600	1430	1515	123	120	88	98
Jul	1600	1508	1554	128	130	90	93
Aug	1600	1508	1554	132	130	87	93
Sep	1600	1723	1662	134	130	92	99
Oct	1604	1723	1664	140	130	89	99
Nov	1608	1723	1666	145	130	85	99
Dec	1613	1723	1668	146	130	85	99
1981 Jan	1617	1723	1670	148	141	84	92
Feb	1621	1723	1672	149	141	83	92
Mar	1625	1776	1701	151	141	84	93
Apr	1625	1869	1747	151	141	86	96
Mei	1625	1869	1747	152	141	85	96
Jun	1688	1869	1778	152	141	87	97
Jul	1750	1869	1810	158	148	85	95
Aug	1813	1869	1841	158	148	86	96
Sep	1875	1869	1872	157	148	88	98
Oct	1938	1869	1903	159	148	89	99
Nov	2000	1869	1935	159	148	90	101
Dec	2063	1869	1966	161	148	91	103
1982 Jan	2125	1865	1995	163	160	91	97
Feb	2188	1865	2026	162	160	93	98
Mar	2250	1865	2058	160	160	95	100
Apr	2313	1954	2133	159	160	98	104
Mei	2375	1954	2164	160	160	101	105
Jun	2438	1954	2196	161	160	10[illegible]	107
Jul	2500	1954	2227	162	167	102	103
Aug	2563	1954	2258	161	167	104	105
Sep	2625	1954	2289	165	167	103	106
Oct	2625	1954	2289	167	167	102	106
Nov	2625	1954	2289	167	167	102	106
Dec	2625	1954	2289	172	167	99	106
1983 Jan	2625	1954	2289	175	182	97	97

	Feb	2625	1954	2289	172	182	99	97
	Mar	2625	1954	2289	167	182	102	97
	Apr	2625	2254	2440	172	182	105	104
	Mei	2625	2254	2440	178	182	102	104
	Jun	2781	2254	2518	185	182	101	107
	Jul	2938	2254	2596	187	185	103	109
	Aug	3094	2254	2674	183	185	108	112
	Sep	3250	3005	3128	188	185	123	131
	Oct	3250	3005	3128	191	185	122	131
	Nov	3250	3005	3128	190	185	123	131
	Dec	3250	3005	3128	193	185	121	131
1984	Jan	3250	3005	3128	196	196	119	124
	Feb	3250	3005	3128	197	196	118	124
	Mar	3250	3005	3128	194	196	120	124
	Apr	3281	3005	3143	194	196	120	124
	Mei	3313	3005	3159	200	196	117	125
	Jun	3344	3005	3174	202	196	117	125
	Jul	3375	3005	3190	202	208	117	119
	Aug	3354	3005	3180	200	208	118	119
	Sep	3333	3005	3169	201	208	117	118
	Oct	3313	3005	3159	199	208	118	118
	Nov	3292	3005	3148	199	208	118	117
	Dec	3271	3005	3138	202	208	115	117
1985	Jan	3250	3500	3375	202	226	124	116
	Feb	3500	3500	3500	200	226	130	120
	Mar	3750	3500	3625	201	226	134	124
	Apr	3604	3500	3552	204	226	129	122
	Mei	3458	3500	3479	204	226	127	119
	Jun	3313	3500	3406	208	226	121	117
	Jul	3167	3500	3333	206	232	120	111
	Aug	3021	3500	3260	205	232	118	109
	Sep	2875	3500	3188	204	232	116	106
	Oct	2875	3500	3188	204	232	116	106
	Nov	2875	3500	3188	205	232	115	106
	Dec	2875	3500	3188	207	232	114	106
1986	Jan	2875	3500	3188	214	239	111	103
	Feb	2875	3500	3188	214	239	111	103
	Mar	2875	3500	3188	212	239	112	103
	Apr	2875	3500	3188	216	239	110	103
	Mei	2875	3500	3188	219	239	108	103
	Jun	2875	3500	3188	219	239	108	103
	Jul	2875	3500	3188	218	266	109	93
	Aug	2875	3500	3188	219	266	108	93
	Sep	2875	3500	3188	224	266	106	93
	Oct	2875	3500	3188	233	266	102	93
	Nov	2875	3500	3188	235	266	101	93
	Dec	2875	3500	3188	238	266	99	93
1987	Jan	2875	3500	3188	235	272	101	91
	Feb	2875	3500	3188	236	272	100	91
	Mar	2875	4000	3438	237	272	108	98
	Apr	3063	4000	3531	241	276	109	99
	Mei	3250	4000	3625	244	276	110	102
	Jun	3250	4000	3625	246	276	109	102
	Jul	3250	4000	3625	248	278	109	101
	Aug	3417	4000	3708	251	278	110	103
	Sep	3583	4000	3792	253	278	111	106

	Oct	3750	4000	3875	260	285	111	105
	Nov	3917	4167	4042	267	285	113	110
	Dec	4083	4167	4125	265	285	116	112
1988	Jan	4250	4167	4208	266	287	118	114
	Feb	4250	4167	4208	269	287	116	114
	Mar	4250	4167	4208	268	287	117	114
	Apr		4167		270			
	Mei				277			
					275			

APPENDIX 6: NOMINAL AND REAL WAGES, TUKANG BATU, DENPASAR, 1979 - 1988

	DPU DATA: NOMINAL DAILY WAGES (RUPIAH)	BPS DATA: NOMINAL DAILY WAGES (RUPIAH)	AVERAGE NOMINAL DAILY WAGES (RUPIAH)	CPI FOOD (JAN-JUN 79 = 100)	XFM INDEX SINGLE WORKER (JAN-JUN 79 = 100)	AVERAGE BPS/DPU REAL WAGES (DEF=CPI)	AVERAGE BPS/DPU REAL WAGES (DEF=XFM)
1979 Jan	650	750	700	93	100	100	100
Feb	650	750	700	96	100	97	100
Mar	650	750	700	101	100	92	100
Apr	800	750	775	103	100	101	111
Mei	800	750	775	103	100	100	111
Jun	800	750	775	104	100	100	111
Jul	800	750	775	111	108	93	103
Aug	800	750	775	114	108	90	103
Sep	800	750	775	113	108	92	103
Oct	813	750	781	112	108	93	103
Nov	825	750	788	112	108	94	104
Dec	838	750	794	114	108	93	105
1980 Jan	850	750	800	119	121	90	94
Feb	850	750	800	123	121	87	94
Mar	850	750	800	125	121	85	94
Apr	925	750	838	126	121	89	99
Mei	1000	750	875	128	121	91	103
Jun	1000	750	875	133	121	88	103
Jul	1000	750	875	133	132	88	95
Aug	1000	750	875	135	132	87	95
Sep	1000	750	875	135	132	87	95
Oct	1063	750	906	135	132	90	98
Nov	1125	750	938	139	132	90	102
Dec	1188	750	969	141	132	92	105
1981 Jan	1250	750	1000	146	141	91	101
Feb	1271	750	1010	149	141	91	102
Mar	1292.	938	1115	152	141	98	113
Apr	1313	1094	1203	158	141	102	122
Mei	1333	1094	1214	156	141	104	123
Jun	1354	1094	1224	156	141	105	124
Jul	1375	1094	1234	157	146	105	121
Aug	1396	1094	1245	158	146	105	122
Sep	1417	1094	1255	158	146	106	123
Oct	1437	1094	1266	162	146	104	124
Nov	1458	1094	1276	161	146	105	125
Dec	1479	1094	1286	163	146	105	126
1982 Jan	1500	1094	1297	167	160	103	116
Feb	1813	1094	1453	168	160	115	130
Mar	2125	1094	1609	177	160	121	143
Apr	2063	1367	1715	177	160	129	153
Mei	2000	1367	1684	176	160	127	150
Jun	2031	1367	1699	174	160	130	151
Jul	2063	1367	1715	176	166	130	148
Aug	2094	1367	1730	178	166	130	149
Sep	2125	1367	1746	180	166	129	150
Oct	2156	1367	1762	184	166	128	152
Nov	2188	1367	1777	182	166	130	153
Dec	2219	1367	1793	187	166	128	154
1983 Jan	2250	1367	1809	194	180	125	143

	Feb	2281	1367	1824	192	180	127	145
	Mar	2313	1367	1840	201	180	127	146
	Apr	2344	1367	1855	189	180	131	147
	Mei	2375	1367	1871	195	180	128	148
	Jun	2375	1367	1871	206	180	127	148
	Jul	2375	1367	1871	201	183	124	146
	Aug	2375	1367	1871	199	183	125	146
	Sep	2375	1367	1871	196	183	127	146
	Oct	2375	1367	1871	195	183	128	146
	Nov	2375	1367	1871	190	183	131	146
	Dec	2375	1367	1871	197	183	127	146
1984	Jan	2375	1367	1871	205	189	122	141
	Feb	2375	1367	1871	218	189	115	141
	Mar	2375	1367	1871	217	189	115	141
	Apr	2375	1367	1871	229	189	107	141
	Mei	2375	1367	1871	234	189	107	141
	Jun	2400	1367	1884	232	189	108	142
	Jul	2425	1367	1896	233	198	109	137
	Aug	2413	1367	1890	232	198	109	136
	Sep	2400	1367	1884	226	198	111	136
	Oct	2388	1367	1877	225	198	111	136
	Nov	2375	1367	1871	227	198	110	135
	Dec	2375	1367	1871	227	198	110	135
1985	Jan	2375	2750	2563	235	224	145	164
	Feb	2400	2750	2575	226	224	132	164
	Mar	2425	2750	2588	234	224	142	165
	Apr	2425	2750	2588	234	224	147	165
	Mei	2425	2750	2588	239	224	145	165
	Jun	2400	2750	2575	231	224	149	164
	Jul	2375	2750	2563	237	239	144	153
	Aug	2400	2750	2575	244	239	141	154
	Sep	2425	2750	2588	227	239	152	155
	Oct	2456	2750	2603	226	239	154	156
	Nov	2488	2750	2619	228	239	153	157
	Dec	2519	2750	2634	242	239	145	158
1986	Jan	2550	2750	2650	251	253	141	150
	Feb	2581	2750	2666	260	253	137	151
	Mar	2613	2750	2681	270	253	132	152
	Apr	2644	2750	2697	263	253	137	152
	Mei	2675	2750	2713	267	253	136	153
	Jun	2713	2750	2731	261	253	140	154
	Jul	2750	2750	2750	259	271	142	145
	Aug	2750	2750	2750	263	271	140	145
	Sep	2750	2750	2750	279	271	132	145
	Oct	2750	2750	2750	296	271	124	145
	Nov	2750	2750	2750	283	271	130	145
	Dec	2750	2750	2750	288	271	127	145
1987	Jan	2750	2750	2750	291	277	126	142
	Feb	2750	2750	2750	297	277	123	142
	Mar	2750	2750	2750	301	277	122	142
	Apr	2788	2750	2769	301	277	123	143
	Mei	2825	2750	2788	310	277	120	144
	Jun	2863	2750	2806	304	277	123	145
	Jul	2900	2750	2825	305	279	124	145
	Aug	2938	2750	2844	312	279	122	146
	Sep	2975	2750	2863	314	279	121	147

	Oct	3013	2750	2881	324	285	119	144
	Nov	3050	2750	2900	325	285	119	145
	Dec	3088	2750	2919	339	285	115	146
1983	Jan	3125	2750	2938	343	287	114	146
	Feb	3125	2750	2938	360	287	109	146
	Mar	3125	2750	2938	359	287	110	146
	Apr		2750		370			
	Mei				373			

APPENDIX 7: NOMINAL AND REAL WAGES, TUKANG BATU, MATARAM, 1979 - 1983

	DPU DATA: NOMINAL DAILY WAGES (RUPIAH)	BPS DATA: NOMINAL DAILY WAGES (RUPIAH)	AVERAGE NOMINAL DAILY WAGES (RUPIAH)	CPI FOOD (JAN-JUN 79 = 100)	KFM INDEX SINGLE WORKER (JAN-JUN 79 = 100)	AVERAGE BPS/DPU REAL WAGES (DEF=CPI)	AVERAGE BPS/DPU REAL WAGES (DEF=KFM)
1979 Jan	800	850	825	90	100	100	100
Feb	800	850	825	95	100	94	100
Mar	800	919	859	101	100	95	104
Apr	800	919	859	102	100	91	104
Mei	800	919	859	105	100	89	104
Jun	800	919	859	108	100	87	104
Jul	800	919	859	113	113	83	92
Aug	800	919	859	118	113	79	92
Sep	900	919	909	119	113	83	97
Oct	1010	919	964	118	113	89	103
Nov	1120	919	1019	116	113	95	109
Dec	1230	919	1074	117	113	100	115
1980 Jan	1340	1000	1170	118	123	107	115
Feb	1450	1000	1225	120	123	111	121
Mar	1560	1000	1280	119	123	117	126
Apr	1670	1000	1335	119	123	122	131
Mei	1780	1750	1765	120	123	160	174
Jun	1890	1750	1820	120	123	164	179
Jul	2000	1750	1875	122	133	167	[illegible]
Aug	2000	1750	1875	123	133	166	171
Sep	2000	1750	1875	124	133	164	171
Oct	1922	1750	1836	129	133	153	163
Nov	1844	1750	1797	132	133	143	154
Dec	1766	1750	1758	133	133	143	161
1981 Jan	1688	1750	1719	137	152	136	137
Feb	1609	1750	1680	139	152	131	134
Mar	1531	1750	1641	139	152	129	131
Apr	1453	1750	1602	139	152	125	123
Mei	1375	1750	1563	139	152	122	125
Jun	1488	1750	1619	140	152	125	129
Jul	1600	1750	1675	141	167	129	122
Aug	1713	1750	1731	143	167	132	126
Sep	1825	1750	1788	143	167	135	130
Oct	1938	1750	1844	142	167	141	134
Nov	2050	1750	1900	140	167	147	138
Dec	2163	1750	1956	143	167	149	142
1982 Jan	2275	1750	2013	147	185	149	132
Feb	2388	1750	2069	151	185	149	135
Mar	2500	1750	2125	150	185	154	139
Apr	2250	1750	2000	150	185	145	[illegible]
Mei	2000	1750	1875	150	155	136	123
Jun	2000	1875	1938	149	185	141	[illegible]
Jul	2000	2000	2000	151	195	144	124
Aug	2063	2000	2031	152	195	146	125
Sep	2125	2000	2063	160	195	140	128
Oct	2188	2000	2094	166	195	137	130
Nov	2250	2000	2125	163	195	140	132
Dec	2313	2000	2156	165	195	142	134
1983 Jan	2375	2000	2188	169	212	140	125

Feb	2438	2000	2219	170	212	142	127
Mar	2500	2000	2250	168	212	145	129
Apr	2563	2500	2531	171	212	161	145
Mei	2625	2500	2563	160	212	174	146
Jun	2688	2500	2594	161	212	175	148
Jul	2750	2500	2625	161	216	177	148
Aug	2750	2500	2625	164	216	174	148
Sep	2750	2500	2625	165	216	172	148
Oct	2688	2500	2594	169	216	167	146
Nov	2625	2500	2563	169	216	165	144
Dec	2625	2500	2563	170	216	164	144
1984 Jan	2625	2500	2563	173	224	161	138
Feb	2625	2500	2563	177	224	158	138
Mar	2625	2500	2563	169	224	165	138
Apr	2688	2500	2594	171	224	165	140
Mei	2750	2500	2625	173	224	165	142
Jun	2750	2500	2625	175	224	163	142
Jul	2750	2500	2625	174	239	163	133
Aug	2575	2500	2538	174	239	158	129
Sep	2400	2500	2450	170	239	157	124
Oct	2400	2500	2450	168	239	159	124
Nov	2400	2500	2450	169	239	157	124
Dec	2433	2500	2467	173	239	155	125
1985 Jan	2467	2500	2483	172	262	157	115
Feb	2500	2500	2500	167	262	163	116
Mar	2533	2500	2517	169	262	162	116
Apr	2567	2500	2533	174	262	158	117
Mei	2600	2500	2550	173	262	160	118
Jun	2600	2500	2550	174	262	159	118
Jul	2600	2500	2550	174	269	159	115
Aug	2600	2500	2550	177	269	157	115
Sep	2600	2500	2550	188	269	148	115
Oct	2600	2500	2550	185	269	149	115
Nov	2600	2500	2550	184	269	150	115
Dec	2600	2500	2550	187	269	148	115
1986 Jan	2600	2500	2550	193	277	144	112
Feb	2600	2500	2550	195	277	142	112
Mar	2600	2500	2550	187	277	148	112
Apr	2600	2500	2550	181	277	153	112
Mei	2600	2500	2550	186	277	149	112
Jun	2600	2500	2550	186	277	149	112
Jul	2600	2500	2550	188	288	148	107
Aug	2600	2500	2550	189	288	147	107
Sep	2600	2500	2550	198	288	140	107
Oct	2600	2500	2550	208	288	133	107
Nov	2600	2500	2550	210	288	132	107
Dec	2600	2500	2550	208	288	133	107
1987 Jan	2600	2500	2550	216	311	128	100
Feb	3000	2500	2750	203	311	147	107
Mar	3000	2500	2750	195	311	153	107
Apr	3000	2500	2750	208	325	144	103
Mei	3000	2500	2750	216	325	138	103
Jun	3000	2500	2750	218	325	137	103
Jul	3000	2500	2750	217	340	137	98
Aug	3000	2500	2750	218	340	137	98
Sep	3000	2500	2750	224	340	133	98

	Oct	3000	2500	2750	230	340	130	95
	Nov	3000	2500	2750	238	340	125	95
	Dec	3000	2500	2750	244	340	123	98
1988	Jan	3000	2500	2750	250	370	119	90
	Feb	3000	2500	2750	251	370	119	90
	Mar	3000	2500	2750	236	370	127	90
	Apr	3100	2500	2800	237			
	Mei	3100			239			

APPENDIX 8: NOMINAL AND REAL WAGES, TUKANG BATU, MANADO, 1979 - 1988

	DPU DATA: NOMINAL DAILY WAGES (RUPIAH)	BPS DATA: NOMINAL DAILY WAGES (RUPIAH)	AVERAGE NOMINAL DAILY WAGES (RUPIAH)	CPI FOOD (JAN-JUN 79 = 100)	KFM INDEX SINGLE WORKER (JAN-JUN 79 = 100)	AVERAGE BPS/DPU REAL WAGES (DEF=CPI)	AVERAGE BPS/DPU REAL WAGES (DEF=KFM)
1979 Jan	1750	1500	1625	89	100	100	100
Feb	1750	1500	1625	98	100	92	100
Mar	1750	1500	1625	99	100	90	100
Apr	1750	1667	1708	102	100	92	105
Mei	1750	1751	1750	104	100	93	108
Jun	1750	1751	1750	108	100	89	108
Jul	1750	1776	1763	111	105	88	103
Aug	1750	1776	1763	113	105	86	103
Sep	1750	1776	1763	111	105	87	103
Oct	1750	1776	1763	109	105	89	103
Nov	1750	1776	1763	108	105	89	103
Dec	1750	1776	1763	110	105	88	103
1980 Jan	1750	1776	1763	107	113	91	96
Feb	1750	1776	1763	107	113	90	96
Mar	1750	1776	1763	108	113	90	96
Apr	1750	1860	1805	114	113	87	98
Mei	1750	2029	1890	116	113	90	103
Jun	1813	2029	1921	117	113	90	104
Jul	1875	2029	1952	120	122	89	99
Aug	1938	2029	1983	119	122	91	100
Sep	2000	2029	2015	114	122	97	102
Oct	2125	2029	2077	115	122	100	105
Nov	2250	2029	2140	132	122	89	108
Dec	2250	2029	2140	125	122	94	108
1981 Jan	2250	2029	2140	125	132	94	100
Feb	2250	2029	2140	121	132	97	100
Mar	2250	2029	2140	123	132	95	100
Apr	2350	2181	2266	129	132	96	106
Mei	2450	2232	2341	132	132	97	109
Jun	2550	2283	2417	134	132	100	113
Jul	2650	2283	2467	134	138	101	110
Aug	2750	2283	2517	131	138	105	112
Sep	2850	2283	2567	131	138	108	114
Oct	2950	2283	2617	129	138	112	117
Nov	3050	2283	2667	129	138	114	119
Dec	3150	2283	2717	130	138	115	121
1982 Jan	3250	2537	2893	129	149	123	119
Feb	3297	2537	2917	130	149	124	120
Mar	3344	2537	2940	124	149	130	121
Apr	3391	2537	2964	126	149	129	122
Mei	3438	2537	2987	128	149	129	123
Jun	3484	2537	3011	128	149	130	124
Jul	3531	2537	3034	129	158	130	118
Aug	3578	2537	3057	132	158	127	119
Sep	3625	2537	3081	132	158	128	120
Oct	3615	2537	3076	145	158	116	120
Nov	3604	2537	3070	135	158	126	120
Dec	3594	2537	3065	135	158	125	120
1983 Jan	3583	2537	3060	135	172	125	110

	Feb	3573	2537	3055	131	172	128	110
	Mar	3563	2537	3050	129	172	130	109
	Apr	3552	2537	3044	138	172	122	109
	Mei	3542	2537	3039	139	172	120	109
	Jun	3531	2537	3034	140	172	119	109
	Jul	3521	2537	3029	141	174	118	107
	Aug	3510	2537	3024	145	174	115	107
	Sep	3500	2537	3018	147	174	113	107
	Oct	3500	2537	3018	150	174	111	107
	Nov	3500	2537	3018	151	174	110	107
	Dec	3500	2537	3018	154	174	108	107
1984	Jan	3500	2537	3018	159	180	105	103
	Feb	3500	2537	3018	155	180	107	103
	Mar	3500	2537	3018	152	180	109	103
	Apr	3500	2537	3018	162	180	102	103
	Mei	3500	2537	3018	173	180	96	103
	Jun	3438	2537	2987	170	180	96	102
	Jul	3375	2537	2956	169	192	96	94
	Aug	3375	2537	2956	162	192	100	94
	Sep	3375	2537	2956	155	192	105	94
	Oct	3375	2537	2956	155	192	103	94
	Nov	3375	2537	2956	159	192	102	94
	Dec	3375	2537	2956	159	192	102	94
1985	Jan	3375	2500	2938	161	212	100	85
	Feb	3375	2500	2938	160	212	101	85
	Mar	3375	2500	2938	155	212	104	85
	Apr	3375	2500	2938	171	212	95	85
	Mei	3375	2500	2938	171	212	95	85
	Jun	3375	2500	2938	176	212	92	85
	Jul	3375	2500	2938	186	227	87	80
	Aug	3375	2500	2938	187	227	89	80
	Sep	3375	2500	2938	182	227	90	80
	Oct	3375	2500	2938	189	227	85	80
	Nov	3375	2500	2938	188	227	86	80
	Dec	3375	2500	2938	179	227	91	80
1986	Jan	3375	2750	3063	176	244	96	77
	Feb	3375	2750	3063	182	244	92	77
	Mar	3375	2750	3063	179	244	94	77
	Apr	3375	2750	3063	194	244	87	77
	Mei	3375	2750	3063	197	244	86	77
	Jun	3375	2750	3063	201	244	84	77
	Jul	3375	2750	3063	199	270	85	70
	Aug	3375	2750	3063	199	270	85	70
	Sep	3375	3000	3188	205	270	86	72
	Oct	3375	2919	3146	210	270	82	72
	Nov	3375	3000	3188	203	270	75	72
	Dec	3393	3000	3196	202	270	77	72
1987	Jan	3411	3000	3205	217	284	81	69
	Feb	3429	3000	3214	222	284	80	70
	Mar	3446	3000	3223	215	284	82	70
	Apr	3464	3000	3232	218	291	80	68
	Mei	3482	3000	3241	221	291	81	69
	Jun	3500	3000	3250	226	291	79	69
	Jul	3500	3000	3250	234	299	76	67
	Aug	3250	3000	3125	231	299	75	64
	Sep	3250	3000	3125	238	299	72	64

Oct	3250	3000	3125	266	305	65	63
Nov	3250	3000	3125	260	305	66	63
Dec	3250	3000	3125	261	305	66	63
1988 Jan	3250	3000	3125	252	305	68	63
Feb	3250	3000	3125	251	305	69	63
Mar	3250	3000	3125	251	305	68	63
Apr	3000	3000	3000	251			
Mei				253			

APPENDIX 9: NOMINAL AND REAL WAGES, TUKANG BATU, UJUNG PANDANG, 1979 - 1988

		OPU DATA: NOMINAL DAILY WAGES (RUPIAH)	BPS DATA: NOMINAL DAILY WAGES (RUPIAH)	AVERAGE NOMINAL DAILY WAGES (RUPIAH)	CPI FOOD (JAN-JUN 79 = 100)	KFM INDEX SINGLE WORKER (JAN-JUN 79 = 100)	AVERAGE BPS/OPU REAL WAGES (DEF=CPI)	AVERAGE BPS/OPU REAL WAGES (DEF=KFM)
1979	Jan	900	700	800	100	100	100	100
	Feb	900	933	917	100	100	115	115
	Mar	900	933	917	100	100	115	115
	Apr	900	933	917	100	100	115	115
	Mei	900	933	917	100	100	115	115
	Jun	938	933	935	100	100	117	117
	Jul	975	933	954	110	108	108	111
	Aug	1013	1400	1206	111	108	136	140
	Sep	1050	1400	1225	112	108	137	142
	Oct	1088	1400	1244	111	108	140	144
	Nov	1125	1400	1262	114	108	139	147
	Dec	1163	1400	1281	115	108	139	149
1980	Jan	1200	1400	1300	115	120	141	135
	Feb	1200	1400	1300	117	120	139	135
	Mar	1200	1400	1300	119	120	137	135
	Apr	1200	1400	1300	119	120	137	135
	Mei	1200	1400	1300	120	120	135	135
	Jun	1200	1400	1300	121	120	134	135
	Jul	1200	1400	1300	124	132	131	123
	Aug	1200	1400	1300	126	132	129	123
	Sep	1200	1400	1300	127	132	128	123
	Oct	1200	1400	1300	129	132	126	123
	Nov	1200	1711	1456	132	132	135	137
	Dec	1225	1867	1546	137	132	141	146
1981	Jan	1250	1867	1558	137	138	142	141
	Feb	1250	1867	1558	136	138	143	141
	Mar	1250	1867	1558	136	138	143	141
	Apr	1268	1867	1567	144	138	136	142
	Mei	1286	1867	1576	142	138	138	143
	Jun	1304	1867	1585	140	138	141	144
	Jul	1321	2133	1727	141	139	153	155
	Aug	1339	2133	1736	143	139	152	156
	Sep	1357	2133	1745	143	139	152	157
	Oct	1375	2133	1754	144	139	152	157
	Nov	1393	2133	1763	145	139	152	158
	Dec	1411	2133	1772	149	139	148	159
1982	Jan	1429	2400	1914	155	149	155	161
	Feb	1446	2400	1923	154	149	156	161
	Mar	1464	2400	1932	161	149	152	162
	Apr	1482	2400	1941	158	149	154	163
	Mei	1500	2400	1950	156	149	157	164
	Jun	1563	2400	1981	156	149	159	166
	Jul	1625	2400	2013	158	157	159	163
	Aug	1638	2400	2044	156	157	162	163
	Sep	1750	2400	2075	158	157	164	165
	Oct	1813	2400	2106	159	157	166	166
	Nov	1875	2400	2138	162	157	165	170
	Dec	1938	2400	2169	164	157	165	173
1983	Jan	2000	2400	2200	165	171	[illegible]	161

Feb	2000	2400	2200	163	171	168	161
Mar	2000	2400	2200	162	171	170	161
Apr	2000	2400	2200	166	171	166	161
Mei	2000	2400	2200	164	171	168	161
Jun	2000	2400	2200	168	171	164	161
Jul	2000	2400	2200	170	173	162	159
Aug	2000	2400	2200	169	173	162	159
Sep	2000	2400	2200	165	173	163	159
Oct	2000	2400	2200	171	173	161	159
Nov	2000	2400	2200	171	173	161	159
Dec	2250	2400	2325	175	173	166	168
1984 Jan	2500	2400	2450	180	180	170	170
Feb	2625	2666	2646	178	180	185	183
Mar	2750	2666	2708	177	180	191	188
Apr	2875	2666	2771	179	180	194	192
Mei	3000	2666	2833	183	180	194	196
Jun	3000	2666	2833	184	180	192	196
Jul	3000	2666	2833	186	192	191	185
Aug	3000	2666	2833	183	192	193	185
Sep	3000	2666	2833	182	192	195	185
Oct	3000	2793	2897	181	192	200	189
Nov	3000	2793	2897	181	192	200	189
Dec	3000	2793	2897	186	192	194	189
1985 Jan	3000	2250	2625	189	218	174	150
Feb	3000	2250	2625	187	218	175	150
Mar	3000	2250	2625	188	218	175	150
Apr	3000	2250	2625	188	218	175	150
Mei	3000	2250	2625	188	218	174	150
Jun	3000	2250	2625	192	218	171	150
Jul	3000	2250	2625	193	233	170	141
Aug	3000	2250	2625	187	233	175	141
Sep	3000	2250	2625	187	233	175	141
Oct	3000	2250	2625	187	233	175	141
Nov	3000	2250	2625	189	233	174	141
Dec	3000	2250	2625	193	233	170	141
1986 Jan	3000	2250	2625	196	235	168	139
Feb	3000	2250	2625	199	235	165	139
Mar	3000	2250	2625	198	235	165	139
Apr	3000	2250	2625	198	235	166	139
Mei	3000	2250	2625	196	235	167	139
Jun	3000	2250	2625	197	235	167	139
Jul	3000	2250	2625	195	274	168	120
Aug	3000	2250	2625	194	274	170	120
Sep	3000	2250	2625	196	274	167	120
Oct	3000	2250	2625	203	274	162	120
Nov	3000	2417	2708	204	274	166	123
Dec	3000	2417	2708	206	274	164	123
1987 Jan	3000	3917	3458	209	296	207	146
Feb	3000	3917	3458	212	296	204	146
Mar	3000	3917	3458	212	296	204	146
Apr	3000	3917	3458	212	310	204	140
Mei	3000	3917	3458	219	310	197	140
Jun	3000	3917	3458	222	310	194	140
Jul	3000	3917	3458	221	317	196	136
Aug	3000	3917	3458	225	317	192	136
Sep	3000	3917	3458	229	317	189	136

	Oct	3000	3917	3458	239	320	181	135
	Nov	3000	4000	3500	239	320	183	137
	Dec	3000	4000	3500	241	320	182	137
1988	Jan	3000	4000	3500	244	321	179	136
	Feb	3000	4000	3500	242	321	181	136
	Mar	3000	4000	3500	241	321	182	136
	Apr		4000		241			
	Mai				242			
					244			

APPENDIX 10: NOMINAL AND REAL WAGES, TUKANG BATU, BANJARMASIN, 1979 - 1988

	DPU DATA: NOMINAL DAILY WAGES (RUPIAH)	BPS DATA: NOMINAL DAILY WAGES (RUPIAH)	AVERAGE NOMINAL DAILY WAGES (RUPIAH)	CPI FOOD (JAN-JUN 79 = 100)	KFM INDEX SINGLE WORKER (JAN-JUN 79 = 100)	AVERAGE BPS/DPU REAL WAGES (DEF=CPI)	AVERAGE BPS/DPU REAL WAGES (DEF=KFM)
1979 Jan	1000	1250	1125	74	100	100	100
Feb	1000	1250	1125	90	100	83	100
Mar	1000	1250	1125	105	100	71	100
Apr	1000	1250	1125	105	100	71	100
Mei	1000	1250	1125	109	100	68	100
Jun	1125	1500	1313	117	100	74	117
Jul	1250	1500	1375	121	111	75	110
Aug	1375	1500	1438	113	111	84	115
Sep	1500	1500	1500	110	111	90	120
Oct	1500	1500	1500	109	111	91	120
Nov	1500	1500	1500	113	111	88	120
Dec	1500	1500	1500	118	111	84	120
1980 Jan	1500	1500	1500	122	129	81	103
Feb	1538	1714	1626	128	129	84	112
Mar	1575	1714	1645	129	129	84	113
Apr	1646	1714	1680	127	129	87	116
Mei	1717	1714	1716	125	129	91	118
Jun	1788	1714	1751	125	129	93	120
Jul	1858	1714	1786	126	142	94	111
Aug	1929	1714	1822	130	142	93	114
Sep	2000	1714	1857	130	142	95	116
Oct	1969	1714	1842	129	142	95	115
Nov	1938	1714	1826	141	142	85	114
Dec	1906	1714	1810	142	142	84	113
1981 Jan	1875	1714	1795	153	151	78	106
Feb	1875	1714	1795	154	151	77	106
Mar	1875	1714	1795	155	151	77	106
Apr	1938	1714	1826	158	151	76	108
Mei	2000	1714	1857	157	151	78	110
Jun	2063	1714	1888	155	151	80	112
Jul	2125	1714	1920	160	152	79	112
Aug	2188	1714	1951	160	152	80	114
Sep	2250	1714	1982	157	152	83	116
Oct	2313	1714	2013	158	152	84	118
Nov	2375	1714	2045	159	152	85	120
Dec	2438	1714	2076	162	152	85	121
1982 Jan	2500	1714	2107	176	164	79	114
Feb	2500	1714	2107	178	164	78	114
Mar	2500	1714	2107	173	164	81	114
Apr	2511	1714	2113	161	164	87	114
Mei	2523	1714	2119	156	164	90	115
Jun	2534	1714	2124	154	164	91	115
Jul	2545	1714	2130	158	170	89	111
Aug	2557	1714	2136	159	170	89	111
Sep	2568	1714	2141	161	170	88	112
Oct	2580	1714	2147	169	170	84	112
Nov	2591	1714	2153	177	170	81	112
Dec	2602	1714	2158	173	170	80	113
1983 Jan	2614	1714	2164	179	185	80	104

	Feb	2625	1714	2170	176	185	81	104
	Mar	2636	1714	2175	175	185	80	104
	Apr	2648	1714	2181	182	185	79	105
	Mei	2659	1714	2187	187	185	77	105
	Jun	2670	1714	2192	202	185	72	105
	Jul	2682	1714	2198	207	188	70	104
	Aug	2693	1714	2204	201	188	72	104
	Sep	2705	1714	2209	199	188	73	105
	Oct	2716	1714	2215	200	188	73	105
	Nov	2727	1714	2221	199	188	74	105
	Dec	2739	1714	2226	200	188	74	105
1984	Jan	2750	1714	2232	204	206	72	96
	Feb	2750	1714	2232	206	206	72	96
	Mar	2750	1714	2232	209	206	71	96
	Apr	2750	1714	2232	210	206	70	96
	Mei	2750	1714	2232	219	206	68	96
	Jun	2750	1714	2232	212	206	70	96
	Jul	2750	1714	2232	212	225	70	88
	Aug	2759	1714	2237	214	225	69	89
	Sep	2768	1714	2241	212	225	70	89
	Oct	2777	1714	2246	211	225	70	89
	Nov	2786	1714	2250	212	225	70	89
	Dec	2795	1714	2254	213	225	70	89
1985	Jan	2804	1714	2259	214	252	70	80
	Feb	2813	1714	2263	211	252	71	80
	Mar	2821	1714	2268	213	252	70	80
	Apr	2830	1714	2272	216	252	70	80
	Mei	2839	1714	2277	215	252	70	80
	Jun	2848	1714	2281	222	252	68	81
	Jul	2857	1714	2286	219	266	69	77
	Aug	2866	1714	2290	215	266	70	77
	Sep	2875	1714	2295	214	266	71	77
	Oct	2875	1714	2295	214	266	71	77
	Nov	2875	1714	2295	216	266	70	77
	Dec	2875	1714	2295	216	266	70	77
1986	Jan	2875	1714	2295	215	275	71	74
	Feb	2875	1714	2295	221	275	69	74
	Mar	2875	1714	2295	221	275	69	74
	Apr	2875	2057	2466	223	275	73	80
	Mei	2875	2057	2466	228	275	72	80
	Jun	2875	2057	2466	224	275	73	80
	Jul	2875	2057	2466	221	288	74	76
	Aug	2875	2057	2466	219	288	74	76
	Sep	2875	2057	2466	224	288	73	76
	Oct	2875	2057	2466	237	288	69	76
	Nov	2875	2057	2466	240	288	68	76
	Dec	2875	2057	2466	237	288	69	76
1987	Jan	2875	3000	2938	236	299	82	87
	Feb	2865	3000	2932	239	299	81	87
	Mar	2854	3000	2927	237	299	82	87
	Apr	2844	3000	2922	244	301	79	86
	Mei	2833	3000	2917	249	301	77	86
	Jun	2823	3000	2911	252	301	76	86
	Jul	2813	3000	2906	251	303	77	85
	Aug	2802	3000	2901	248	303	77	85
	Sep	2792	3000	2896	251	303	76	85

Oct	2781	3000	2891	256	306	75	84
Nov	2771	4000	3385	268	306	84	98
Dec	2760	4000	3380	272	306	82	98
1988 Jan	2750	4000	3375	274	307	81	98
Feb	2750	4000	3375	275	307	81	98
Mar	2750	4000	3375	276	307	81	98
Apr		4000		284			
Mei				287			

APPENDIX 11: NOMINAL AND REAL WAGES, TUKANG BATU, PONTIANAK, 1979 - 1985

	DPU DATA: NOMINAL DAILY WAGES (RUPIAH)	BPS DATA: NOMINAL DAILY WAGES (RUPIAH)	AVERAGE NOMINAL DAILY WAGES (RUPIAH)	CPI FOOD (JAN-JUN 79 = 100)	KFM INDEX SINGLE WORKER (JAN-JUN 79 = 100)	AVERAGE BPS/DPU REAL WAGES (DEF=CPI)	AVERAGE BPS/DPU REAL WAGES (DEF=KFM)
1979 Jan	1200	650	925	81	100	100	100
Feb	1200	650	925	90	100	90	100
Mar	1200	650	925	104	100	78	100
Apr	1200	650	925	106	100	76	100
Mei	1200	650	925	109	100	75	100
Jun	1350	650	1000	110	100	80	108
Jul	1500	704	1102	114	107	85	111
Aug	1500	704	1102	118	107	82	111
Sep	1500	704	1102	116	107	84	111
Oct	1500	704	1102	113	107	85	111
Nov	1500	704	1102	117	107	83	111
Dec	1563	758	1160	119	107	86	117
1980 Jan	1625	758	1192	122	121	86	106
Feb	1688	758	1223	123	121	87	109
Mar	1750	758	1254	124	121	89	112
Apr	1813	758	1285	124	121	91	114
Mei	1875	758	1317	127	121	91	117
Jun	1938	758	1348	127	121	93	120
Jul	2000	758	1379	127	130	95	115
Aug	2000	758	1379	129	130	94	115
Sep	2000	885	1442	129	130	98	120
Oct	2000	910	1455	126	130	101	121
Nov	2000	1011	1506	126	130	105	126
Dec	2000	1112	1556	129	130	106	130
1981 Jan	2000	1112	1556	128	142	107	118
Feb	2000	1112	1556	131	142	104	118
Mar	2000	1137	1569	131	142	105	119
Apr	2054	1137	1596	131	142	107	121
Mei	2107	1137	1622	135	142	105	123
Jun	2161	1163	1662	137	142	107	126
Jul	2214	1163	1688	137	150	108	122
Aug	2268	1163	1715	137	150	110	124
Sep	2321	1213	1767	137	150	113	128
Oct	2375	1213	1794	137	150	115	130
Nov	2429	1213	1821	139	150	116	132
Dec	2482	1214	1848	139	150	117	134
1982 Jan	2536	1314	1925	145	164	117	127
Feb	2589	1314	1952	146	164	118	129
Mar	2643	1314	1979	145	164	119	131
Apr	2696	1314	2005	145	164	122	132
Mei	2750	1314	2032	146	164	122	134
Jun	2786	1314	2050	147	164	123	135
Jul	2821	1314	2068	147	170	124	131
Aug	2857	1314	2086	148	170	124	133
Sep	2893	1314	2104	152	170	122	134
Oct	2929	1314	2121	153	170	122	135
Nov	2964	1314	2139	153	170	122	136
Dec	3000	1314	2157	151	170	125	137
1983 Jan	3036	2750	2893	154	187	165	167

	Feb	3071	2800	2936	157	187	164	170
	Mar	3107	2800	2954	155	187	167	171
	Apr	3143	3000	3071	159	187	170	178
	Mei	3179	3000	3089	159	187	170	179
	Jun	3214	3100	3157	162	187	171	183
	Jul	3250	3100	3175	163	192	171	179
	Aug	3286	3100	3193	163	192	172	180
	Sep	3321	3100	3211	168	192	167	181
	Oct	3357	3100	3229	166	192	171	182
	Nov	3393	3100	3246	166	192	171	183
	Dec	3429	3250	3339	171	192	172	188
1984	Jan	3464	3250	3357	175	209	168	173
	Feb	3500	3250	3375	178	209	166	174
	Mar	3500	3250	3375	177	209	167	174
	Apr	3500	3250	3375	179	209	166	174
	Mei	3500	3250	3375	179	209	165	174
	Jun	3500	3250	3375	183	209	162	174
	Jul	3500	3250	3375	180	225	164	162
	Aug	3500	3250	3375	182	225	163	162
	Sep	3500	3250	3375	181	225	164	162
	Oct	3500	3250	3375	180	225	164	162
	Nov	3500	3300	3400	180	225	166	163
	Dec	3500	3300	3400	180	225	166	163
1985	Jan	3500	3300	3400	182	249	164	147
	Feb	3500	3300	3400	180	249	166	147
	Mar	3500	3300	3400	180	249	165	147
	Apr	3500	3300	3400	185	249	162	147
	Mei	3500	3300	3400	184	249	162	147
	Jun	3500	3300	3400	187	249	160	147
	Jul	3500	3300	3400	186	261	160	141
	Aug	3500	3300	3400	190	261	157	141
	Sep	3500	3300	3400	189	261	159	141
	Oct	3500	3300	3400	186	261	161	141
	Nov	3500	3300	3400	189	261	158	141
	Dec	3500	3300	3400	191	261	156	141
1986	Jan	3500	3300	3400	197	265	151	139
	Feb	3500	3300	3400	201	265	148	139
	Mar	3500	3300	3400	200	265	149	139
	Apr	3500	3300	3400	203	265	147	139
	Mei	3500	3300	3400	207	265	144	139
	Jun	3500	3300	3400	206	265	145	139
	Jul	3500	3300	3400	205	291	146	126
	Aug	3500	3300	3400	205	291	146	126
	Sep	3500	3300	3400	211	291	141	126
	Oct	4000	3300	3650	213	291	150	136
	Nov	4500	3300	3900	213	291	159	145
	Dec	4500	3300	3900	214	291	160	145
1987	Jan	4500	3300	3900	217	297	158	142
	Feb	4500	3300	3900	222	297	154	142
	Mar	4500	3300	3900	220	297	155	142
	Apr	4500	3300	3900	222	303	154	139
	Mei	4500	3300	3900	226	303	151	139
	Jun	4500	3300	3900	227	303	151	139
	Jul	4500	3300	3900	230	307	149	137
	Aug	4500	3300	3900	230	307	149	137
	Sep	4500	3300	3900	239	307	143	137

	Oct	4500	3300	3900	239	311	143	136
	Nov	4500	3300	3900	245	311	140	136
	Dec	4500	3300	3900	244	311	140	136
1983	Jan	4500	3300	3900	249	311	137	136
	Feb	4500	3300	3900	249	311	137	136
	Mar	4500	3300	3900	251	311	137	136
	Apr	4500	3500	4000	251			
	Mei				236			

APPENDIX 12: NOMINAL AND REAL WAGES, TUKANG BATU, PALEMBANG, 1979 - 1988

	DPU DATA: NOMINAL DAILY WAGES (RUPIAH)	BPS DATA: NOMINAL DAILY WAGES (RUPIAH)	AVERAGE NOMINAL DAILY WAGES (RUPIAH)	CPI FOOD (JAN-JUN 79 = 100)	KFM INDEX SINGLE WORKER (JAN-JUN 79 = 100)	AVERAGE BPS/DPU REAL WAGES (DEF=CPI)	AVERAGE BPS/DPU REAL WAGES (DEF=KFM)
1979 Jan	1300	1000	1150	93	100	100	100
Feb	1300	1000	1150	93	100	99	100
Mar	1300	1000	1150	99	100	94	100
Apr	1300	1111	1206	101	100	96	105
Mei	1300	1250	1275	105	100	97	111
Jun	1325	1250	1287	109	100	95	112
Jul	1350	1319	1335	113	109	95	106
Aug	1375	1319	1347	115	109	95	107
Sep	1400	1528	1464	111	109	106	117
Oct	1425	1528	1476	109	109	109	118
Nov	1450	1528	1489	110	109	109	119
Dec	1475	1528	1501	110	109	110	120
1980 Jan	1500	1528	1514	112	126	109	105
Feb	1500	1719	1609	115	126	113	111
Mar	1500	1719	1609	115	126	112	111
Apr	1600	1719	1659	116	126	115	115
Mei	1700	1719	1709	123	126	112	118
Jun	1800	1846	1823	123	126	120	126
Jul	1900	1846	1873	125	136	121	120
Aug	2000	1910	1955	128	136	123	125
Sep	2100	1910	2005	127	136	127	129
Oct	2200	1910	2055	128	136	129	132
Nov	2300	1910	2105	134	136	127	135
Dec	2400	1910	2155	131	136	133	138
1981 Jan	2500	1910	2205	134	145	132	132
Feb	2500	1910	2205	136	145	130	132
Mar	2500	1910	2205	141	145	126	132
Apr	2500	1910	2205	143	145	125	132
Mei	2500	1910	2205	143	145	124	132
Jun	2500	1910	2205	145	145	123	132
Jul	2500	1910	2205	144	153	124	125
Aug	2500	1910	2205	145	153	123	125
Sep	2500	1910	2205	144	153	123	125
Oct	2500	1910	2205	148	153	120	125
Nov	2500	2100	2300	145	153	127	131
Dec	2500	1925	2213	146	153	122	126
1982 Jan	2500	2164	2332	145	168	127	121
Feb	2500	2291	2395	148	168	130	124
Mar	2500	2227	2364	149	168	128	122
Apr	2500	2227	2364	151	168	126	122
Mei	2500	2227	2364	151	168	126	122
Jun	2500	2227	2364	151	168	126	122
Jul	2500	2227	2364	153	174	124	118
Aug	2500	2227	2364	152	174	125	118
Sep	2500	2227	2364	154	174	124	118
Oct	2563	2227	2395	156	174	124	120
Nov	2625	2227	2426	158	174	124	121
Dec	2688	2227	2457	157	174	126	123
1983 Jan	2750	2291	2520	163	189	124	116

	Feb	2750	2291	2520	158	189	123	116
	Mar	2750	2291	2520	159	189	128	116
	Apr	2750	2291	2520	166	189	122	116
	Mei	2750	2291	2520	170	189	120	116
	Jun	2875	2291	2583	176	189	118	119
	Jul	3000	2291	2645	180	192	118	120
	Aug	3000	2291	2645	177	192	121	120
	Sep	3000	2291	2645	181	192	117	120
	Oct	3000	2291	2645	181	192	113	120
	Nov	3000	2291	2645	182	192	117	120
	Dec	3375	2291	2833	182	192	125	128
1984	Jan	3750	2291	3020	188	201	130	131
	Feb	3750	2291	3020	195	201	125	131
	Mar	3750	2291	3020	191	201	127	131
	Apr	3750	2291	3020	187	201	130	131
	Mei	3750	2291	3020	189	201	129	131
	Jun	3750	2291	3020	192	201	127	131
	Jul	3750	2291	3020	190	213	128	124
	Aug	3750	2291	3020	191	213	128	124
	Sep	3750	2291	3020	193	213	126	124
	Oct	3750	2291	3020	191	213	129	124
	Nov	3750	2291	3020	189	213	129	124
	Dec	3750	2291	3020	192	213	127	124
1985	Jan	3750	4000	3875	196	231	159	146
	Feb	3750	4000	3875	192	231	163	146
	Mar	3750	4000	3875	192	231	163	146
	Apr	3750	4000	3875	195	231	160	146
	Mei	3750	4000	3875	195	231	160	146
	Jun	3750	4000	3875	202	231	155	146
	Jul	3750	4000	3875	194	237	161	142
	Aug	3750	4000	3875	194	237	161	142
	Sep	3750	4000	3875	194	237	161	142
	Oct	3750	4000	3875	192	237	162	142
	Nov	3750	4000	3875	192	237	163	142
	Dec	3750	4000	3875	190	237	164	142
1986	Jan	3750	4000	3875	196	245	159	137
	Feb	3750	4000	3875	197	245	159	137
	Mar	3750	4000	3875	202	245	155	137
	Apr	3750	4000	3875	201	245	156	137
	Mei	3750	4000	3875	214	245	146	137
	Jun	3750	4000	3875	208	245	150	137
	Jul	3750	4000	3875	202	283	155	119
	Aug	3750	4000	3875	204	283	153	119
	Sep	3750	4000	3875	207	283	151	119
	Oct	3750	4500	4125	212	283	156	127
	Nov	3750	4500	4125	213	283	156	127
	Dec	3750	4500	4125	211	283	157	127
1987	Jan	3750	4500	4125	213	302	156	119
	Feb	3750	4500	4125	215	302	155	119
	Mar	3750	4500	4125	225	302	148	119
	Apr	3750	4500	4125	215	302	155	119
	Mei	3750	4500	4125	227	302	147	119
	Jun	3750	4500	4125	221	302	152	119
	Jul	3750	4500	4125	222	306	152	117
	Aug	3750	4500	4125	223	306	149	117
	Sep	3750	4500	4125	224	306	149	117

	Oct	3750	4500	4125	230	310	145	116
	Nov	3750	4500	4125	229	310	145	116
	Dec	3750	4500	4125	226	310	147	116
1988	Jan	3750	4500	4125	231	328	143	109
	Feb		4500	4125	238	328	139	109
	Mar		4500	4125	239	328	139	109
	Apr		4500		242			
	Mei				243			

APPENDIX 13: NOMINAL AND REAL WAGES, TUKANG BATU, PADANG, 1979 - 1988

	DPU DATA: NOMINAL DAILY WAGES (RUPIAH)	BPS DATA: NOMINAL DAILY WAGES (RUPIAH)	AVERAGE NOMINAL DAILY WAGES (RUPIAH)	CPI FOOD (JAN-JUN 79 = 100)	KFM INDEX SINGLE WORKER (JAN-JUN 79 = 100)	AVERAGE BPS/DPU REAL WAGES (DEF=CPI)	AVERAGE BPS/DPU REAL WAGES (DEF=KFM)
1979 Jan	1250	1000	1125	90	100	100	100
Feb	1250	1250	1250	97	100	104	111
Mar	1250	1250	1250	102	100	98	111
Apr	1250	1250	1250	103	100	98	111
Mei	1250	1250	1250	104	100	97	111
Jun	1275	1250	1263	104	100	97	112
Jul	1300	1250	1275	111	110	92	103
Aug	1275	1375	1325	116	110	92	107
Sep	1250	1375	1313	115	110	91	106
Oct	1500	1375	1438	115	110	101	116
Nov	1750	1375	1563	116	110	108	126
Dec	1750	1375	1563	117	110	107	126
1980 Jan	1750	1375	1563	120	124	104	112
Feb	1750	1450	1600	123	124	104	114
Mar	1750	1500	1625	121	124	107	116
Apr	1775	1500	1637	121	124	109	117
Mei	1800	1500	1650	121	124	110	118
Jun	1850	1500	1675	120	124	112	120
Jul	1900	1500	1700	125	139	110	109
Aug	1950	1500	1725	127	139	109	111
Sep	2000	1528	1764	127	139	112	113
Oct	2063	1528	1795	129	139	111	115
Nov	2125	1783	1954	134	139	117	125
Dec	2188	2037	2112	134	139	127	135
1981 Jan	2250	2037	2144	142	147	121	130
Feb	2375	2037	2206	144	147	123	134
Mar	2500	2037	2269	144	147	126	137
Apr	2500	2037	2269	143	147	128	137
Mei	2500	2037	2269	136	147	134	137
Jun	2500	2037	2269	136	147	134	137
Jul	2500	2037	2269	139	153	131	132
Aug	2500	2037	2269	142	153	128	132
Sep	2500	2037	2269	146	153	125	132
Oct	2500	2037	2269	147	153	124	132
Nov	2500	2037	2269	142	153	128	132
Dec	2500	2037	2269	144	153	127	132
1982 Jan	2500	2037	2269	153	169	119	119
Feb	2500	2037	2269	153	169	119	119
Mar	2500	2037	2269	151	169	121	119
Apr	2469	2037	2253	149	169	122	118
Mei	2438	2037	2237	149	169	120	117
Jun	2406	2037	2222	150	169	119	117
Jul	2375	2037	2206	152	177	116	111
Aug	2275	2037	2156	146	177	118	102
Sep	2175	2037	2106	148	177	114	106
Oct	2175	2037	2106	150	177	113	106
Nov	2175	2037	2106	154	177	110	106
Dec	2088	2037	2062	157	177	106	104
1983 Jan	2000	2377	2189	160	192	110	101

Feb	2500	2377	2439	160	192	122	113
Mar	3000	2377	2689	164	192	132	124
Apr	3000	2377	2689	165	192	131	124
Mei	3000	2377	2689	166	192	130	124
Jun	3000	2377	2689	167	192	129	124
Jul	3000	2377	2689	172	195	125	123
Aug	3000	2377	2689	171	195	127	123
Sep	3000	2377	2689	176	195	123	123
Oct	3000	2377	2689	170	195	127	123
Nov	3000	2377	2689	177	195	122	123
Dec	3000	2377	2689	183	195	118	123
1984 Jan	3000	2377	2689	196	201	110	119
Feb	3000	2377	2689	193	201	112	119
Mar	3000	2377	2689	190	201	113	119
Apr	3010	2377	2694	188	201	115	119
Mei	3021	2377	2699	187	201	116	119
Jun	3031	2377	2704	189	201	115	119
Jul	3042	2377	2709	189	212	115	113
Aug	3052	2377	2715	189	212	115	114
Sep	3062	2377	2720	187	212	117	114
Oct	3073	2377	2725	185	212	118	114
Nov	3083	2377	2730	186	212	118	114
Dec	3094	2377	2735	187	212	117	114
1985 Jan	3104	3500	3302	192	228	138	129
Feb	3115	3500	3307	190	228	140	129
Mar	3125	3500	3313	189	228	140	129
Apr	3125	3500	3313	189	228	141	129
Mei	3125	3500	3313	191	228	140	129
Jun	3125	3500	3313	192	228	139	129
Jul	3125	3500	3313	194	229	137	129
Aug	3125	3500	3313	192	229	138	129
Sep	3125	3500	3313	194	229	137	129
Oct	3125	3500	3313	188	229	141	129
Nov	3125	3500	3313	192	229	139	129
Dec	3125	3500	3313	193	229	138	129
1986 Jan	3125	3500	3313	195	232	137	127
Feb	3125	3500	3313	193	232	138	127
Mar	3125	3500	3313	198	232	135	127
Apr	3156	3500	3328	197	232	136	127
Mei	3188	3500	3344	200	232	134	125
Jun	3219	3500	3359	200	232	135	129
Jul	3250	3500	3375	199	252	136	119
Aug	3281	3500	3391	202	252	134	120
Sep	3313	3500	3406	216	252	127	120
Oct	3344	3500	3422	229	252	120	121
Nov	3375	3500	3438	219	252	122	121
Dec	3406	3500	3453	219	252	127	120
1987 Jan	3438	3500	3469	217	274	129	112
Feb	3469	3500	3484	220	274	127	113
Mar	3500	3500	3500	203	274	128	113
Apr	3500	3500	3500	220	284	128	109
Mei	3500	3500	3500	220	284	128	109
Jun	3500	3500	3500	217	284	130	109
Jul	3500	3500	3500	220	287	128	108
Aug	3500	3500	3500	220	287	128	108
Sep	3500	3500	3500	221	287	127	108

	Oct	3500	3500	3500	220	296	128	105
	Nov	3500	3500	3500	231	296	122	105
	Dec	3500	3500	3500	240	296	117	105
1988	Jan	3500	4250	3875	239	298	130	115
	Feb	3500	4200	3850	245	298	126	115
	Mar	3500	4250	3875	237	298	131	115
	Apr		4250		234			
	Mei				242			

APPENDIX 14: NOMINAL AND REAL WAGES, TUKANG BATU, MEDAN, 1979 - 1988

	DPU DATA: NOMINAL DAILY WAGES (RUPIAH)	BPS DATA: NOMINAL DAILY WAGES (RUPIAH)	AVERAGE NOMINAL DAILY WAGES (RUPIAH)	CPI FOOD (JAN-JUN 79 = 100)	KFM INDEX SINGLE WORKER (JAN-JUN 79 = 100)	AVERAGE BPS/DPU REAL WAGES (DEF=CPI)	AVERAGE BPS/DPU REAL WAGES (DEF=KFM)
1979 Jan	1300	1111	1206	97	100	100	100
Feb	1300	1111	1206	98	100	99	100
Mar	1300	1296	1298	99	100	105	108
Apr	1350	1370	1360	101	100	108	113
Mei	1400	1370	1385	102	100	109	115
Jun	1450	1370	1410	102	100	111	117
Jul	1500	1370	1435	110	109	105	109
Aug	1500	1370	1433	115	109	101	109
Sep	1500	1370	1435	116	109	100	109
Oct	1500	1370	1435	117	109	99	109
Nov	1500	1370	1435	120	109	96	109
Dec	1500	1370	1435	120	109	97	109
1980 Jan	1500	1583	1542	121	136	102	94
Feb	1500	1583	1542	127	136	98	94
Mar	1500	1583	1542	124	136	100	94
Apr	1500	1583	1542	122	136	102	94
Mei	1500	1583	1542	127	136	98	94
Jun	1500	1650	1575	125	136	101	96
Jul	1500	1683	1592	125	148	103	89
Aug	1500	1683	1592	125	148	102	89
Sep	1500	1683	1592	125	148	103	89
Oct	1625	1683	1654	126	148	106	92
Nov	1750	1683	1717	132	148	104	96
Dec	1875	1750	1813	134	148	109	101
1981 Jan	2000	1750	1875	139	159	108	98
Feb	2250	1750	2000	141	159	114	104
Mar	2500	1750	2125	142	159	120	111
Apr	2500	1750	2125	146	159	118	111
Mei	2500	1750	2125	142	159	120	111
Jun	2500	2000	2250	143	159	127	117
Jul	2500	2000	2250	145	169	125	110
Aug	2542	2000	2271	150	169	122	111
Sep	2583	2000	2292	154	169	120	113
Oct	2625	2000	2313	157	169	119	114
Nov	2667	2000	2333	151	169	124	115
Dec	2708	2000	2354	149	169	128	116
1982 Jan	2750	2000	2375	150	189	128	104
Feb	2792	2000	2396	148	189	130	105
Mar	2833	2000	2417	145	189	134	106
Apr	2875	2000	2438	146	189	135	107
Mei	2917	2000	2458	144	189	137	108
Jun	2958	2000	2479	151	189	132	109
Jul	3000	2000	2500	153	199	131	104
Aug	3000	2000	2500	146	199	138	104
Sep	3000	2000	2500	144	199	139	104
Oct	3000	2000	2500	147	199	137	104
Nov	3000	2000	2500	147	199	137	104
Dec	3000	2000	2500	155	199	130	104
1983 Jan	3000	2500	2750	157	217	141	105

	Feb	3000	3000	3000	150	217	161	115
	Mar	3000	3000	3000	150	217	162	115
	Apr	3000	3000	3000	157	217	154	115
	Mei	3000	3000	3000	164	217	147	115
	Jun	3000	3000	3000	162	217	149	115
	Jul	3000	3000	3000	161	220	150	113
	Aug	3000	3000	3000	159	220	152	113
	Sep	3000	3000	3000	164	220	148	113
	Oct	3000	3000	3000	164	220	147	113
	Nov	3000	3000	3000	165	220	147	113
	Dec	3000	3000	3000	166	220	145	113
1984	Jan	3000	3000	3000	179	229	135	109
	Feb	3000	3000	3000	180	229	134	109
	Mar	3000	3000	3000	174	229	139	109
	Apr	3083	3000	3042	176	229	139	110
	Mei	3167	3000	3083	178	229	140	112
	Jun	3250	3000	3125	175	229	144	113
	Jul	3333	3000	3167	179	241	142	109
	Aug	3417	3000	3208	176	241	147	110
	Sep	3500	3000	3250	175	241	150	112
	Oct	3500	3000	3250	172	241	152	112
	Nov	3500	3000	3250	172	241	153	112
	Dec	3500	3000	3250	178	241	147	112
1985	Jan	3500	3000	3250	176	260	149	104
	Feb	3500	3000	3250	173	260	151	104
	Mar	3500	3000	3250	171	260	153	104
	Apr	3500	3000	3250	179	260	146	104
	Mei	3500	3000	3250	176	260	148	104
	Jun	3500	3000	3250	173	260	147	104
	Jul	3500	3000	3250	178	267	147	101
	Aug	3500	3000	3250	180	267	145	101
	Sep	3500	3000	3250	180	267	145	101
	Oct	3500	3000	3250	177	267	148	101
	Nov	3500	3000	3250	177	267	148	101
	Dec	3500	3000	3250	179	267	147	101
1986	Jan	3500	3000	3250	188	271	139	100
	Feb	3500	3000	3250	187	271	140	100
	Mar	3500	3000	3250	188	271	139	100
	Apr	3625	3000	3313	185	271	144	101
	Mei	3750	3000	3375	192	271	142	103
	Jun	3875	3000	3438	189	271	147	105
	Jul	4000	3000	3500	189	298	149	98
	Aug	4013	3000	3506	197	298	143	98
	Sep	4025	4000	4013	207	298	156	112
	Oct	4038	4000	4019	213	298	152	112
	Nov	4050	4000	4025	217	298	152	112
	Dec	4025	4000	4013	217	298	149	112
1987	Jan	4000	4000	4000	222	326	145	102
	Feb	4000	4000	4000	215	326	148	102
	Mar	4000	4000	4000	216	326	149	102
	Apr	4000	4000	4000	216	342	147	96
	Mei	4000	4000	4000	221	346	144	96
	Jun	4000	4000	4000	220	346	146	96
	Jul	4000	4000	4000	220	350	146	95
	Aug	4000	4000	4000	226	350	143	95
	Sep	4000	4000	4000	216	350	150	95

	Oct	4000	4000	4000	224	351	144	95
	Nov	4000	4000	4000	229	351	141	95
	Dec	4000	4000	4000	235	351	137	95
1938	Jan	4000	4000	4000	238	366	135	91
	Feb	4000	4000	4000	240	366	134	91
	Mar	4000	4000	4000	240	366	135	91
	Apr		4000		248			
	Mei				259			

AGRICULTURAL REAL WAGE TRENDS, EAST AND WEST JAVA, 1983-1988: A COMPARISON OF BPS AND PATANAS DATA

Statistical Paper #16

by

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and

Faisal Kasryno

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(DSP #66)

RESTRICTED

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

0. EXECUTIVE SUMMARY

This paper throws further light on the disturbing recent trends in agricultural real wages in Java suggested by BPS data from the Farmers' Terms of Trade Survey. For this purpose it makes a comparison of these BPS data on real wages in hoeing, planting and weeding in East and West Java since 1983 with similar data collected by the Patanas survey of wages and prices, managed from the Centre for Agro-Economic Research in Bogor. On the whole the comparison induces more rather than less confidence in the reliability of the BPS data as a guide to real wage trends in these two provinces. However, further work needs to be done on the deflator, in particular on the question of the proper weight for rice within it. The BPS finding that agricultural real wages have been falling in recent years depends crucially on the assumption that rice represents a relatively small proportion of wage-earners' spending on food. This assumption needs to be explored further in the light of regional data on consumption patterns, including those generated by other parts of the Patanas survey.

I. INTRODUCTION

Various recent papers from DSP II (e.g. Godfrey 1987; Papanek 1988a,b,c) have described some disturbing trends in agricultural real wages in Java. These studies have all been based on Central Bureau of Statistics (BPS)[1] data from the Farmers' Terms of Trade Survey. If these data are to be believed for Central and East Java, real wages have been falling since the early 1980s, and the fall has accelerated during 1987. Real agricultural wages for West Java seem to have been on a gentle downward trend since the series started in 1976.

The implications of such trends are so important that they need to be subjected to as many comparative checks as possible. This paper reports on the results of one such check - against data from the PATANAS survey of wages and prices, managed from the Center for Agro-Economic Research (CAER), Bogor. This survey has been collecting twice-monthly data on wages of six categories of unskilled labor and consumer prices of fifteen commodities in East Java since 1983 and in West Java, West Sumatra and South Sulawesi since 1984. Since late 1987 the survey has been extended to Central Java, Lampung and South Kalimantan. There are also plans to cover North Sulawesi. At this point in time the availability of the Patanas data enables a BPS/PATANAS comparison to be made of real wages in three activities - hoeing, planting and weeding - in two provinces - East and West Java[2].

II. AGRICULTURAL REAL WAGE TRENDS IN EAST AND WEST JAVA - THE BPS STORY

The BPS agricultural wage data has been taken from the BPS Farmers' Terms of Trade Survey (Survei Nilai Tukar Petani) which

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1 BPS is the acronym for Biro Pusat Statistik translated as the Central Bureau of Statistics.

has been collecting monthly data on wages in agriculture, in East, Central and West Java and D.I. Yogyakarta since 1976, and in twenty other provinces since 1980. The data are used as an element of farmers' costs in the calculations of their terms of trade, published only for the four Javanese provinces. They are considered [by whom] reliable for only three occupations : mencangkul (hoeing), a male occupation; menanam (planting), usually female; and menyiang (weeding), also mainly female. Information is collected from one farmer in each of 261 kecamatan in East Java and 180 kecamatan in West Java. Consumer price data are collected from nearby markets in the same kecamatan.

Real wage trends[3]. in East and West Java (shown in detail in Appendices 1 and 2) are summarized as annual averages in Figures 1 and 2. These figures show that after falling from 1976 to 1979, real wages in all three activities rose steeply in the next few years to reach a peak around 1983. Since then they have fallen again, with a particularly fast rate of decrease in 1987. In West Java, on the other hand, there was no upsurge in real wages at the turn of the decade and no subsequent spectacular fall. Rather, they fell gently through most of the period and were lower for all three activities in 1987 than they had been in 1976.

These pictures tell a depressing story for those concerned with employment policy in Indonesia. They suggest that, in spite of the unprecedented increases in double and triple rice cropping, increased government expenditure in rural areas, educational expansion, internal transport revolution and the economy-wide effects of the oil boom on the demand for labor, Indonesia (or at least Java) is still a labor-surplus economy. The beginnings of a shortage of labor emerged only briefly in East (and in Central) Java and not at all in West Java. If, as they arguably

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3 The index of consumer food prices, collected by the same survey, is used as a deflator in calculating real wages. This

Figure 1
EAST JAVA:AGRICULTURAL REAL WAGE TRENDS
1976–87(DEFLATED BY FOOD PRICE INDEX)

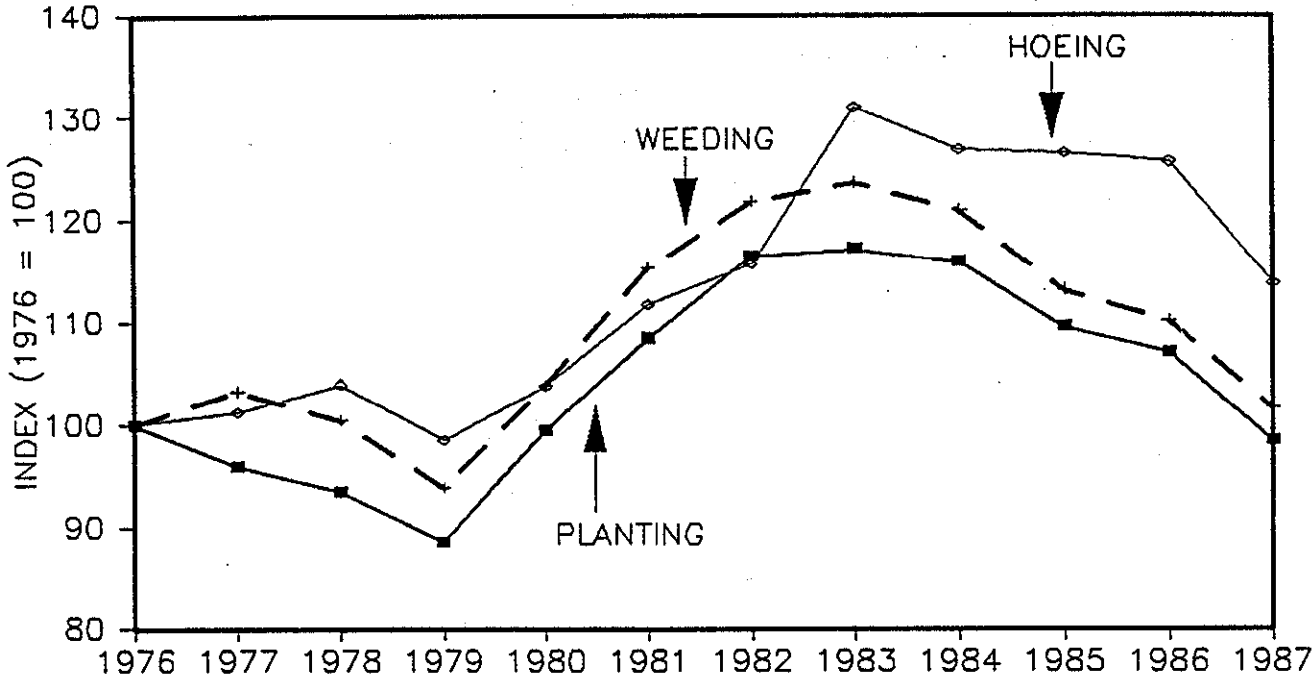
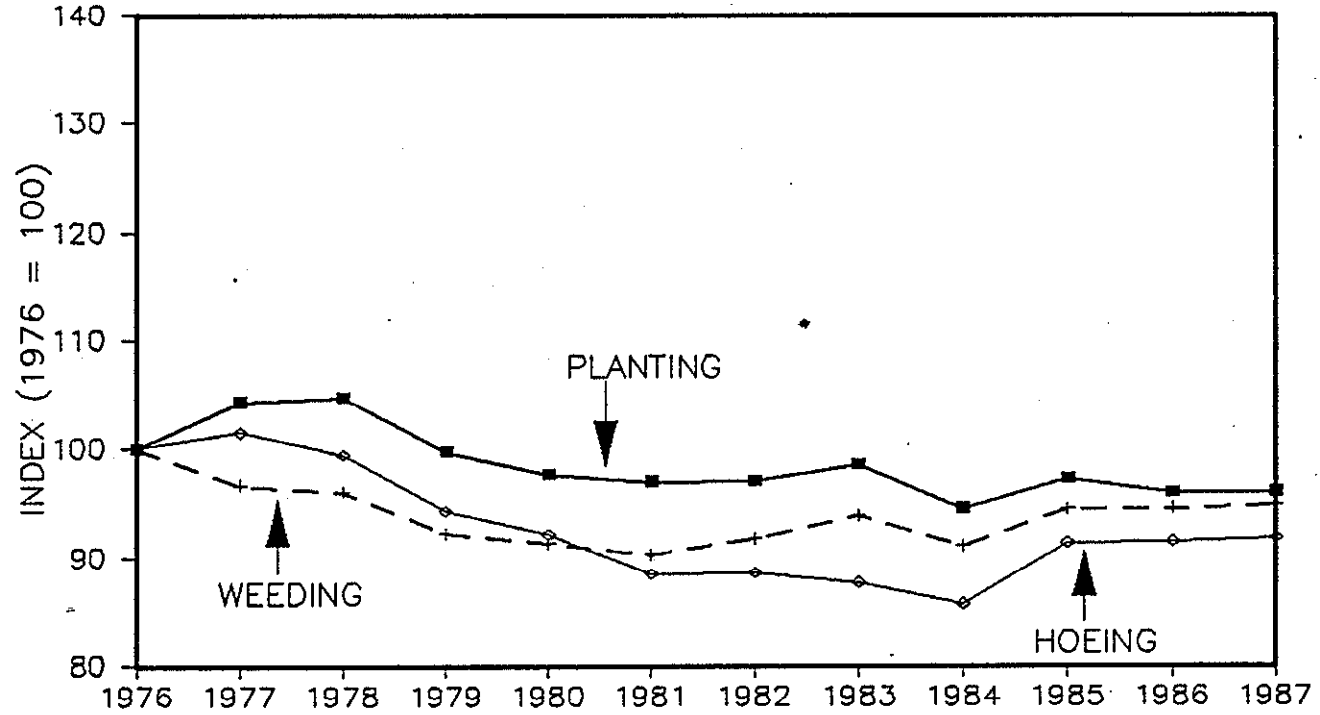


Figure 2
WEST JAVA:AGRICULTURAL REAL WAGE TRENDS
1976–87(DEFLATED BY FOOD PRICE INDEX)



are, these real wages are a reliable guide to the state of the unskilled labor market as a whole, they suggest that many of those with nothing to sell but their labor got a better real price for it before the oil boom was fully under way than they do now.

What can a comparison with the PATANAS data tell us about the validity of this conclusion? This is the question to which we now turn.

III. The BPS/PATANAS COMPARISON FOR EAST JAVA

The PATANAS agricultural wage data differs from the BPS wage data in two ways. First, the PATANAS nominal wage series is deflated by an index of prices collected in the same survey, with weights taken from the BPS nine essential commodities index[4]. The BPS nominal wage series is deflated by the farmers' consumer price index, with prices and weights from the Survei Nilai Tukar Petani. Thus, the deflator used in each case may incorporate some differences. This study has used the deflator which is generated and normally used by the respective survey. Appendices 1 and 2 show the details of trends in real wages in East Java, as measured by the two surveys.

The second difference relates to the definition of wages. BPS adds on the value of food, cigarettes etc. received by workers[5] while PATANAS excludes such payments in kind from the wage figure. Thus, the nominal wage figures shown in Appendix 1 are, on average, 47 per cent higher for BPS than for PATANAS. Since our interest is in trends rather than in absolute values, Figures 3,4 and 5 compare the paths of indices of real wages for the activities covered by the two surveys (April 1983 = 100). The narrowing of differences between the two surveys in the

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4 Following the procedure used in previous analyses of PATANAS data (eg see Swenson et al, 1986)

5

Figure 3

EAST JAVA, REAL WAGES, HOEING
PATANAS & BPS DATA COMPARED, 1983 – 88

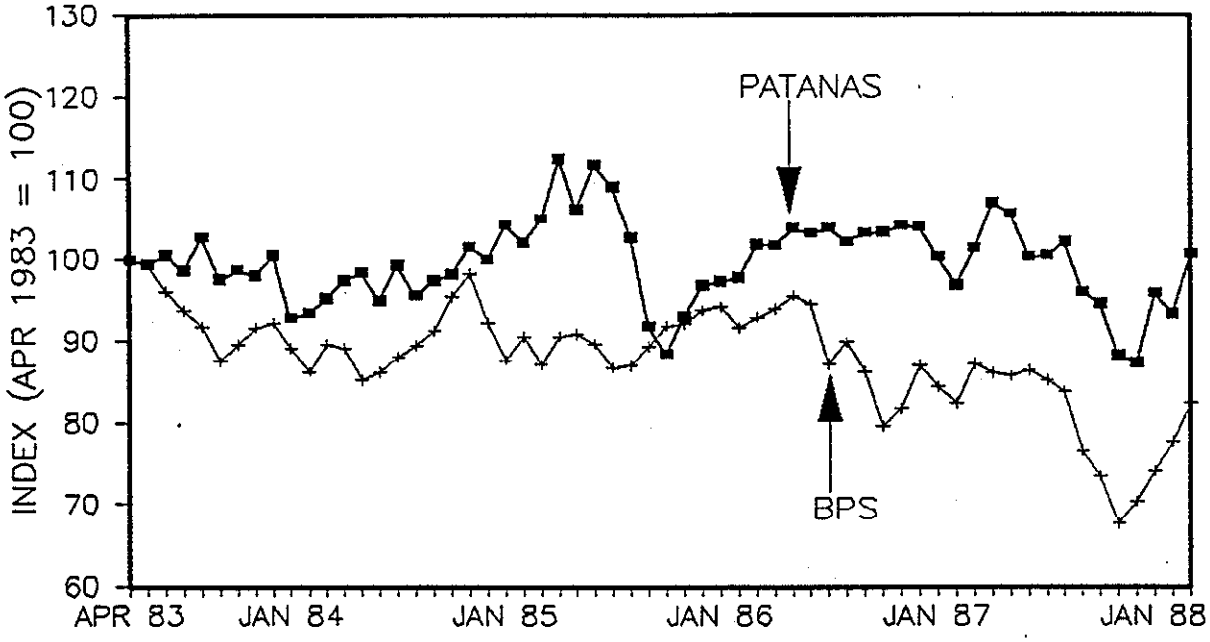


Figure 4

EAST JAVA, REAL WAGES, PLANTING
PATANAS & BPS DATA COMPARED, 1983 – 88

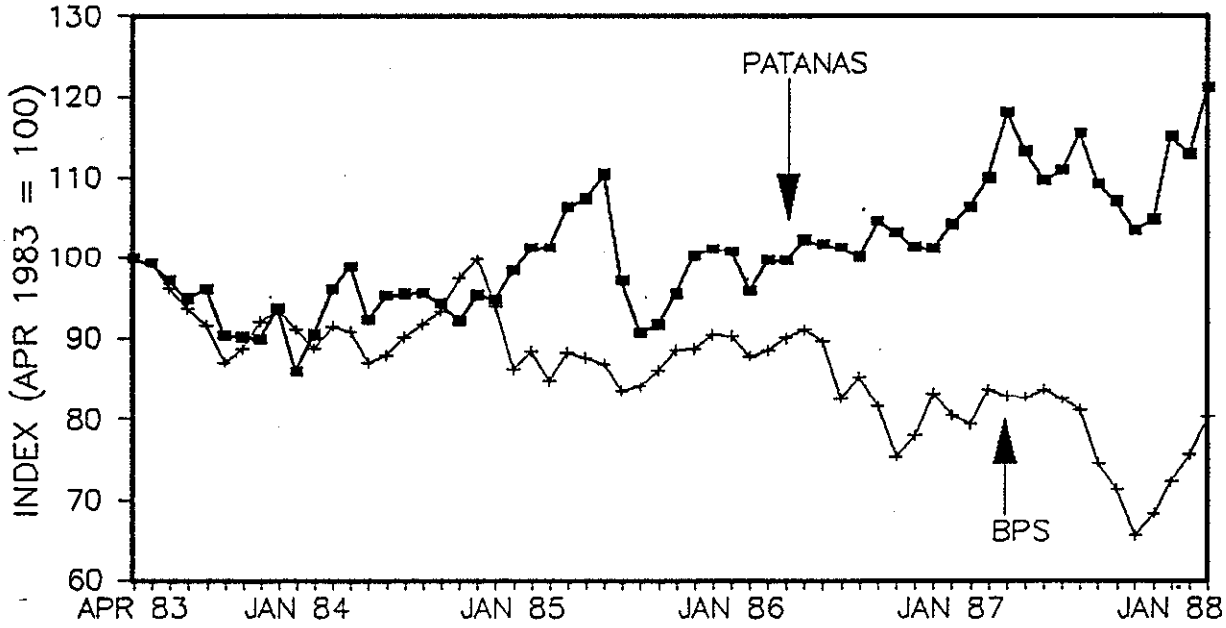


Figure 5
EAST JAVA, REAL WAGES, WEEDING
PATANAS & BPS DATA COMPARED, 1983 – 88

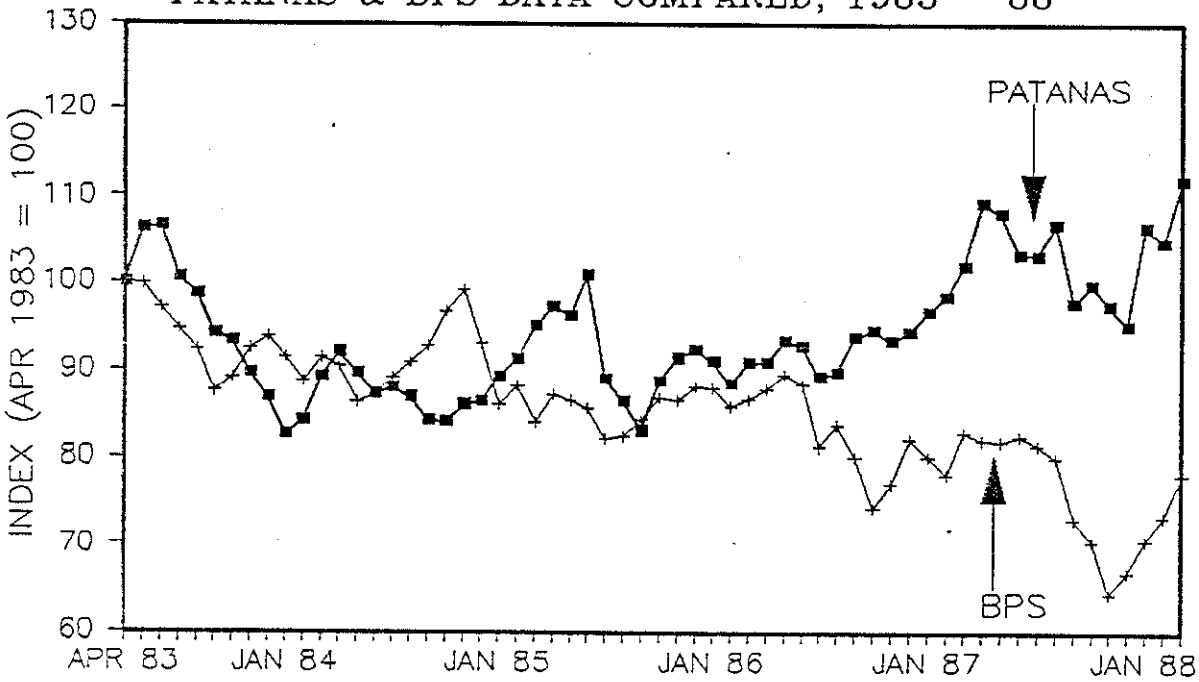
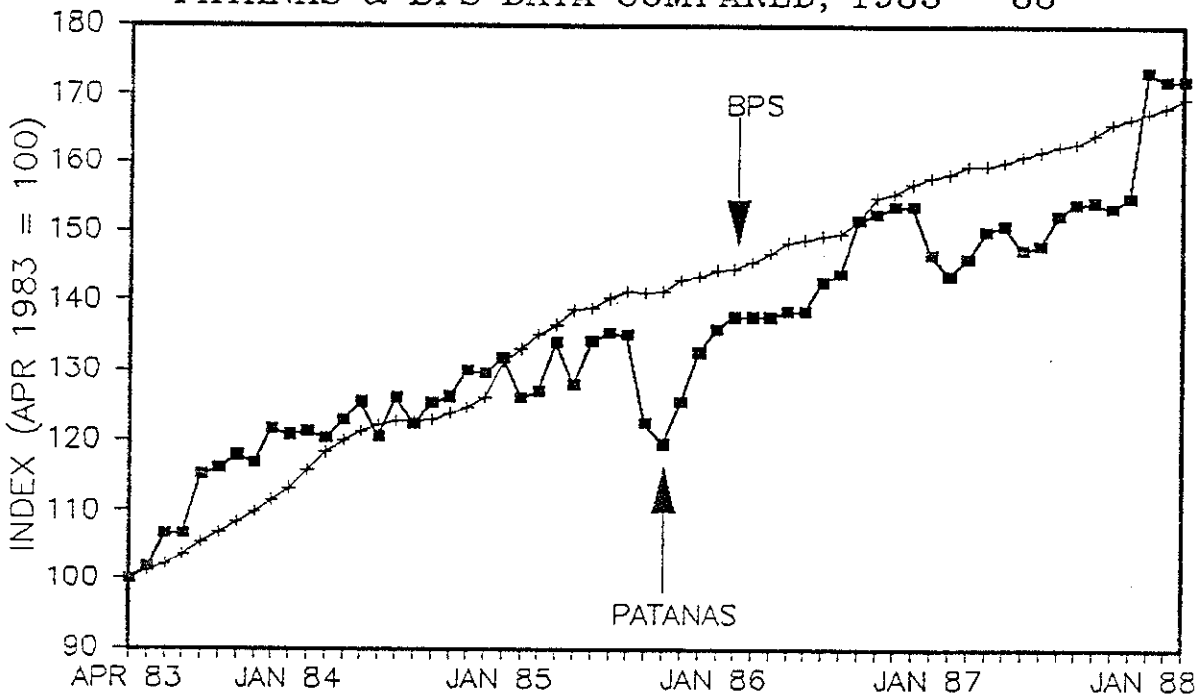


Figure 6
EAST JAVA, NOMINAL WAGES, HOEING
PATANAS & BPS DATA COMPARED, 1983 – 88



nominal wages may reflect the fact that the wages have moved towards not including meals and other perquisites over time.

Only a slight difference in the trends of real wages for hoeing derived from the two surveys as shown in Figure 3. Whereas the PATANAS trend is flat, the BPS trend is slightly downward over the whole period. But the paths of real planting wages diverge quite sharply since late 1984 and those for real weeding wages since early 1986. In both cases the PATANAS series shows rising real wages and the BPS series falling real wages over the periods of divergence.

There are two possible sources of divergence in such real wage series. There may be differences in the levels of nominal wages observed. Or the problem may lie in the price indices that are being used as deflators.

Figures 6, 7 and 8 compare trends in the two series of nominal wages for each of the three activities. As can be seen from Figure 6, the trends in nominal hoeing wages are quite similar. If anything, the BPS figures were rising faster than those from PATANAS over most of the period. However, in the cases of planting and weeding, while trends are similar for most of the period, they begin to diverge towards the end. In effect they imply a narrowing of wage differentials between men (in hoeing) and women (in planting and weeding) during 1987.

There has also been divergence for several years in the trends of the price indices normally used as deflators of the two sets of nominal wage data as Figure 9 shows. Both data sets show high rates of price increase during 1987, but over the 1984 - 1986 period the BPS index (of food prices from the farmers' terms of trade survey) rose at a considerably faster rate than did the PATANAS index (of prices of the nine essential commodities).

This divergence seems to be due not so much to differences in

Figure 7

EAST JAVA, NOMINAL WAGES, PLANTING
PATANAS & BPS DATA COMPARED, 1983 – 88

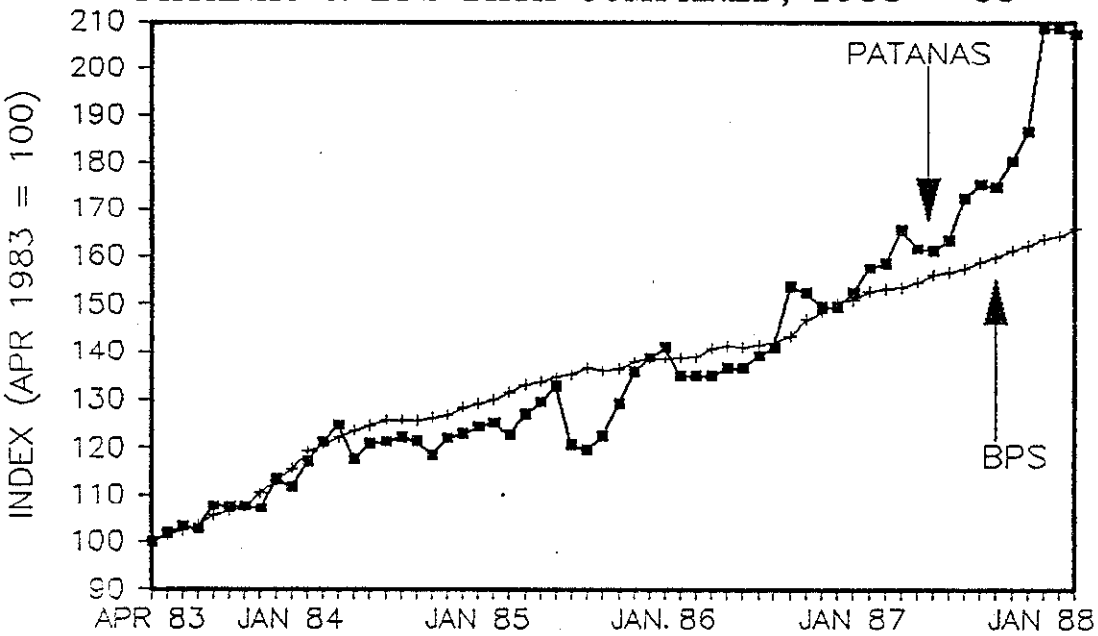


Figure 8

EAST JAVA, NOMINAL WAGES, WEEDING
PATANAS & BPS DATA COMPARED, 1983 – 88

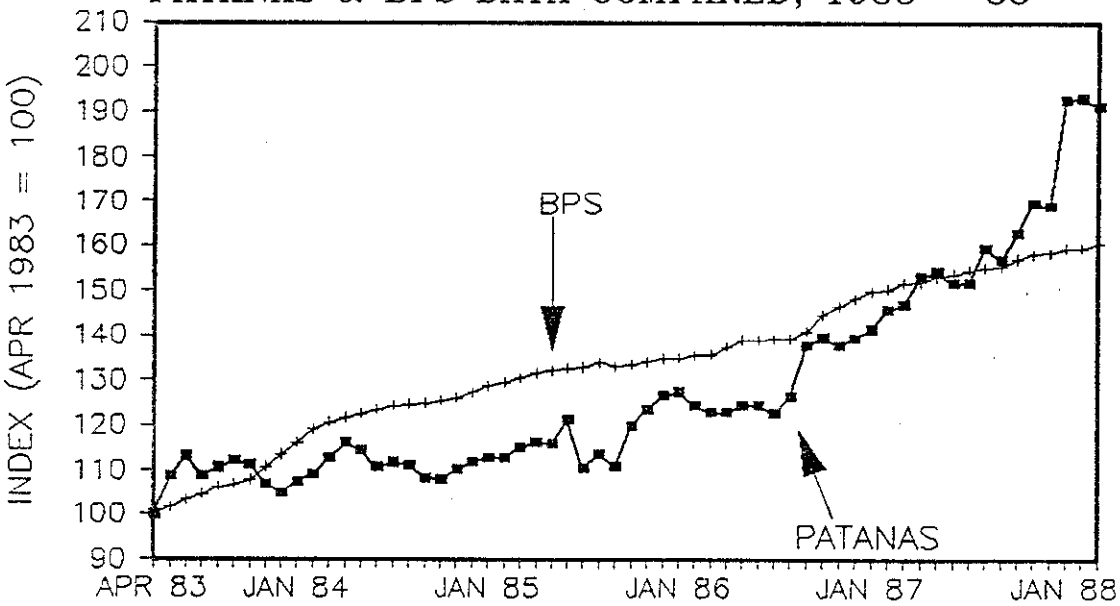


Figure 9

EAST JAVA, CONSUMER PRICE INDICES
PATANAS & BPS DATA COMPARED, 1983 – 88

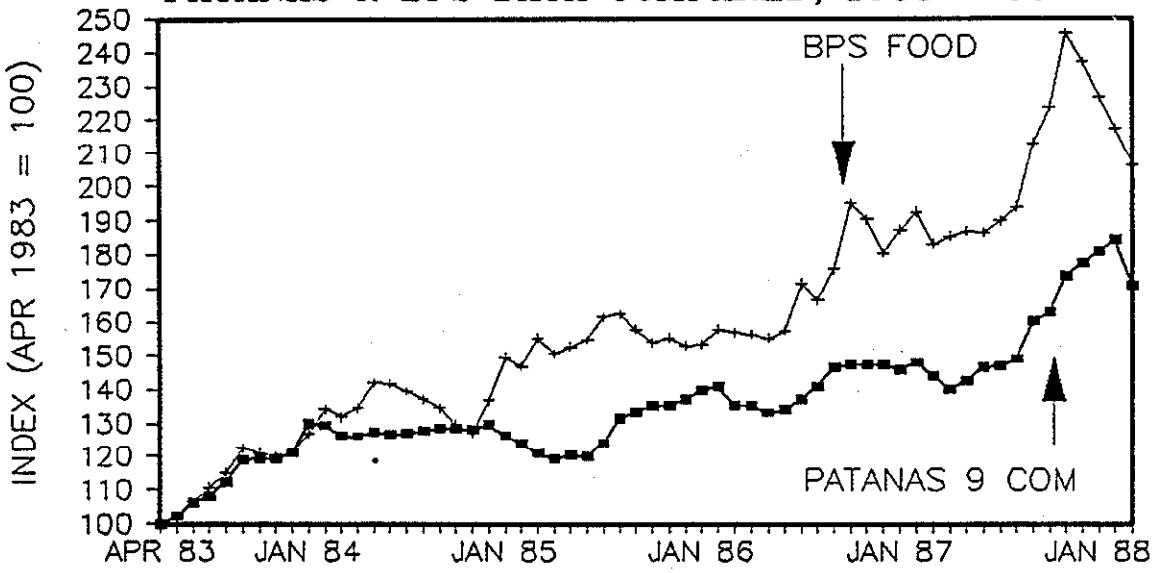
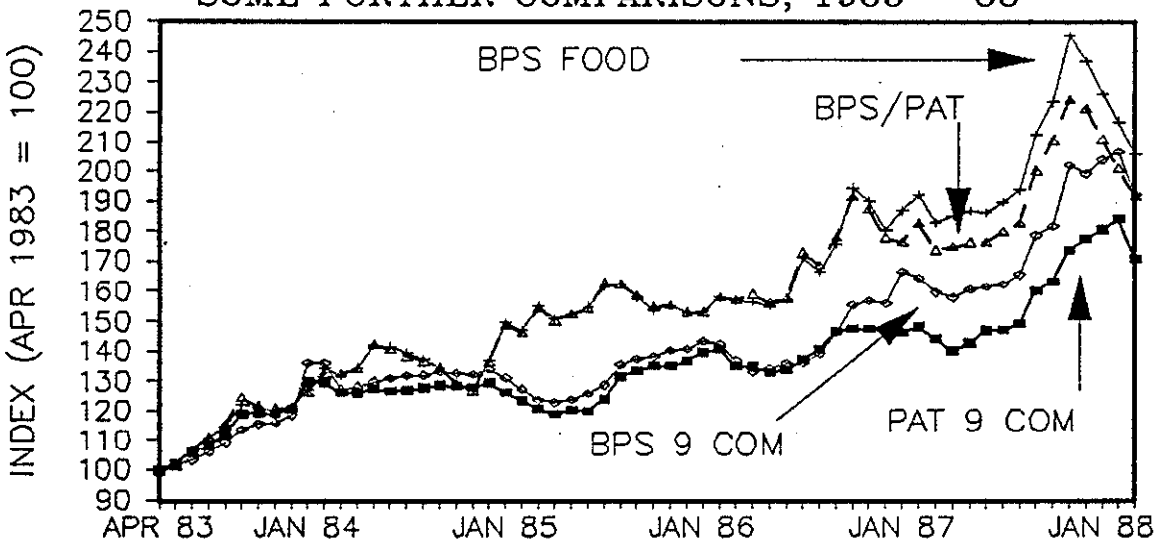


Figure 10

EAST JAVA, CONSUMER PRICE INDICES
SOME FURTHER COMPARISONS, 1983 – 88



differences in the weights used in the two indices as judged from the comparisons of various indices shown in Figure 10. The two nine-commodity indices (one using PATANAS, the other BPS data, but with the same weights) are very close together until late 1986. Substitution, in the BPS index, of the rice prices observed by PATANAS for those observed by BPS (with the result shown in BPS/PAT in Figure 10) does not make any difference to the trend until early 1987.

Another way of illustrating this is explored in Figures 11, 12 and 13. What difference does it make to the BPS picture of trends in real wages in East Java if the price index used for deflating the nominal wage data is varied? As can be seen therein, there is a much larger impact on the position of the real wage curve in each case when the 9-commodity weighting (with more weight to rice and kerosene[6]) is used compared to the substitution of PATANAS rice prices for BPS rice prices.

Finally, the importance of the choice of weighting for rice is illustrated in Figure 14. The impact is explored of gradually increasing the weight of rice in the BPS food price index, from 27% to 100%, on the path of real planting wages. Clearly the heavier the weight of rice in the index the later the onset of the fall in real wages. If nominal wages are deflated by rice prices alone, the picture is one of continued buoyancy in real wages during the mid-eighties, with a substantial fall delayed until 1987.

To summarize on the comparison of PATANAS and BPS data on real agricultural wage trends in East Java, the main sources of divergence are: (a) differences in observations of recent nominal wages for the mainly female activities of planting and weeding; (b) differences in price index weighting. If the same price weights are used in each case, the similarity of the

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6 The weights used in the two indices are as follows. Nine-commodity: milled rice, 46.55%; salty fish, 8.33%; cooking oil, 9.4%; salt, 0.93%; kerosene 12.76%; soap, 4.7%; teteron cloth, 2.09%; batik cloth, 2.29%; sugar, 12.9%. BPS food: rice, 26.8%; nonrice food, 73.1%. See Rosegrant (1988) for

Figure 11
EAST JAVA, REAL WAGES, HOEING
BPS DATA, VARYING DEFLATORS, 1983 – 88

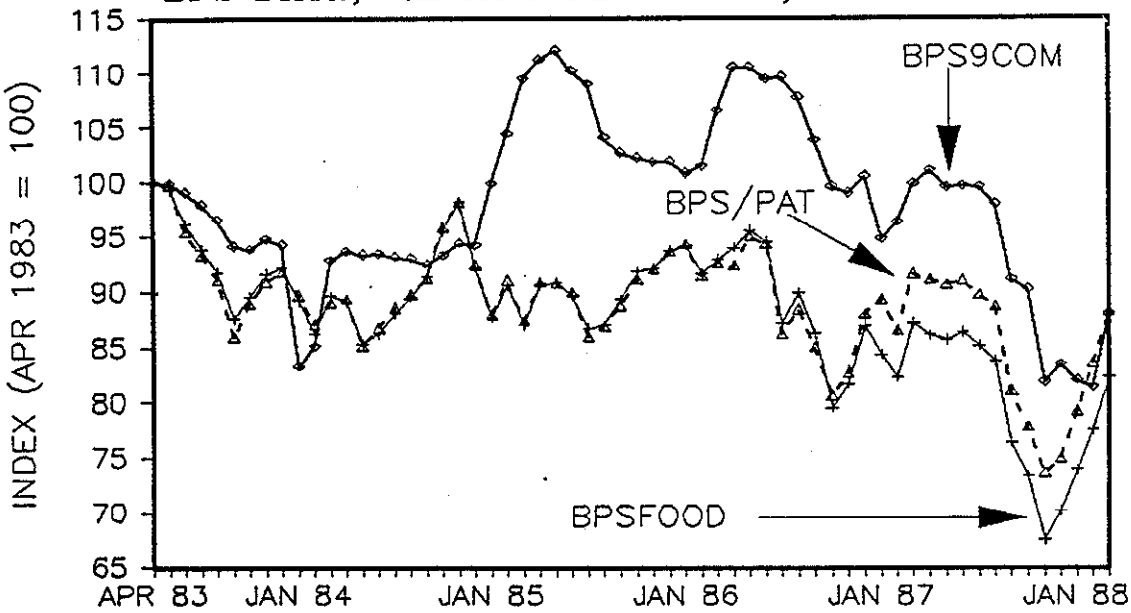


Figure 12
EAST JAVA, REAL WAGES, PLANTING
BPS DATA, VARYING DEFLATORS, 1983 – 88

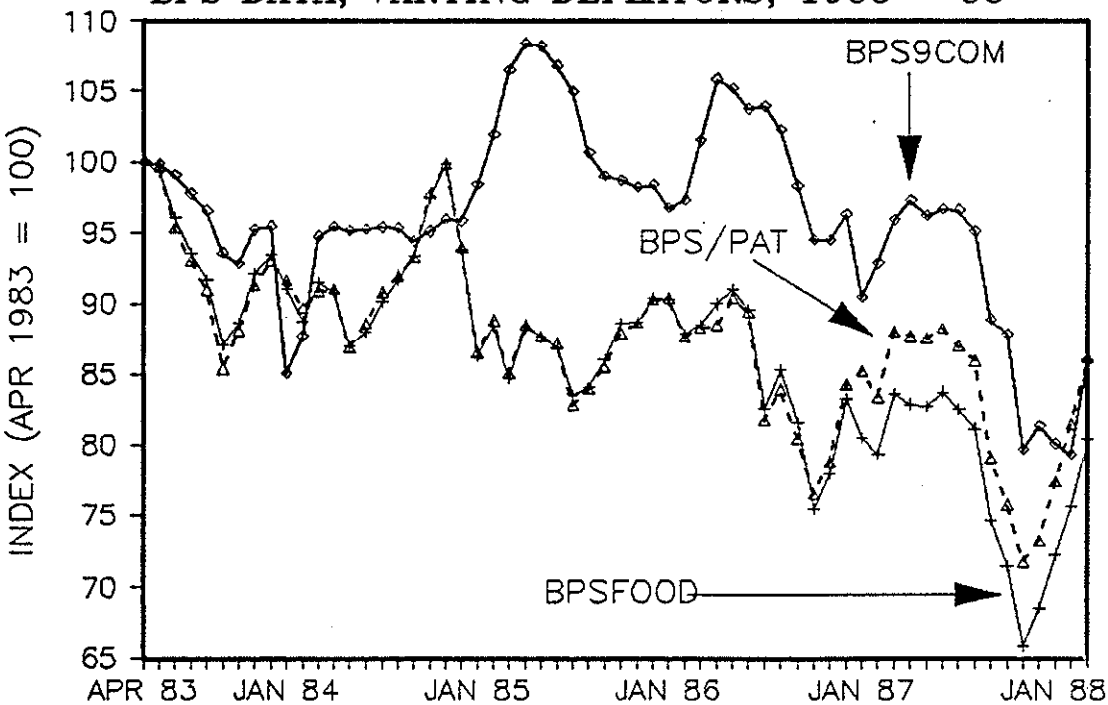


Figure 13

EAST JAVA, REAL WAGES, WEEDING
BPS DATA, VARYING DEFLATORS, 1983 – 88

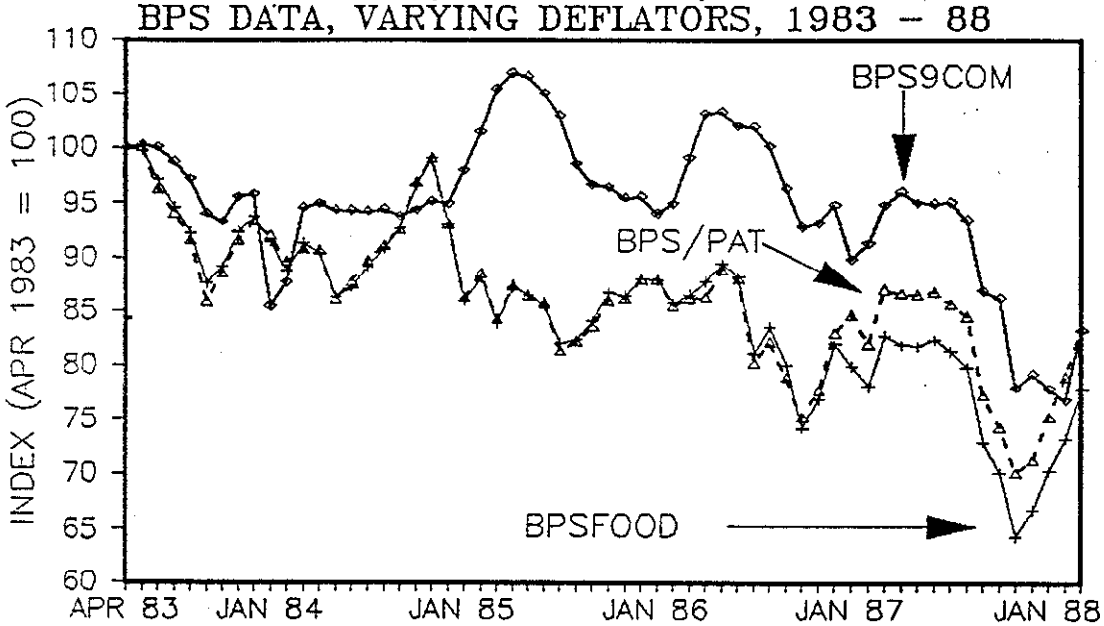
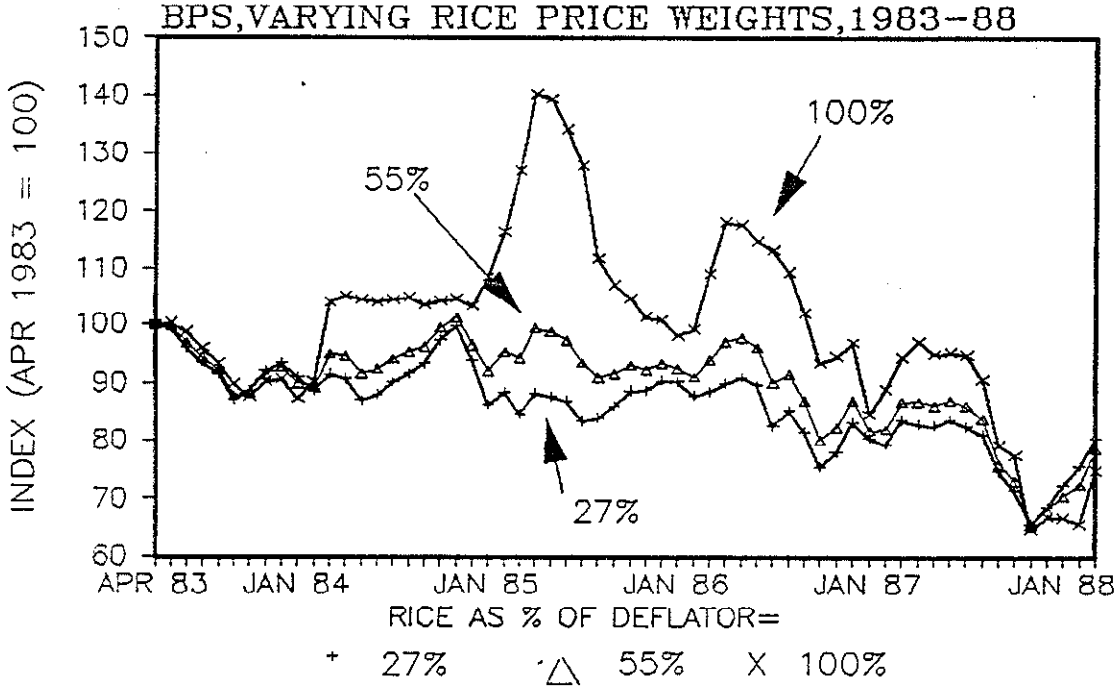


Figure 14

EAST JAVA, REAL WAGES, PLANTING
BPS,VARYING RICE PRICE WEIGHTS,1983–88



results from the two data sources over most of the period (the whole period in the case of hoeing wages) is more striking than the differences.

IV. THE BPS/PATANAS COMPARISON FOR WEST JAVA

The comparison of BPS and PATANAS real wage data is more problematic in the case of West Java. This is partly because of the smaller size of the PATANAS sample (comprising only 14 villages). There are also more gaps in the data series (including one lasting for six months and covering the whole sample) and more apparent noise and fluctuations among the signals. For this reason, while Appendices 3 and 4 show the detailed information on which the comparison is based, the PATANAS real wage data are presented in Figures 15 and 16 in the form of a centered three-month moving average[7].

The results show a relatively close correspondence in trends in real wages as measured by the two surveys over the March 1984 - February 1988 period. In the case of hoeing, the PATANAS series shows a sharper increase between 1984 and 1985 but is otherwise quite similar to the BPS series. In the case of planting the timing of peaks and troughs is sometimes different but the overall trend looks comparable.

This similarity in trends extends to both nominal wages and prices. Figures 17 and 18 show that the trajectories of nominal wages observed by PATANAS for both hoeing and planting lie below those observed by BPS. And Figure 19 shows that even the PATANAS nine-commodity price index and the BPS food price index are fairly close together even though they have very different weightings.

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7 Only hoeing and planting are covered because data on weeding wages [illegible]

Figure 15
WEST JAVA, REAL WAGES, HOEING
PATANAS & BPS DATA COMPARED, 1984–1988

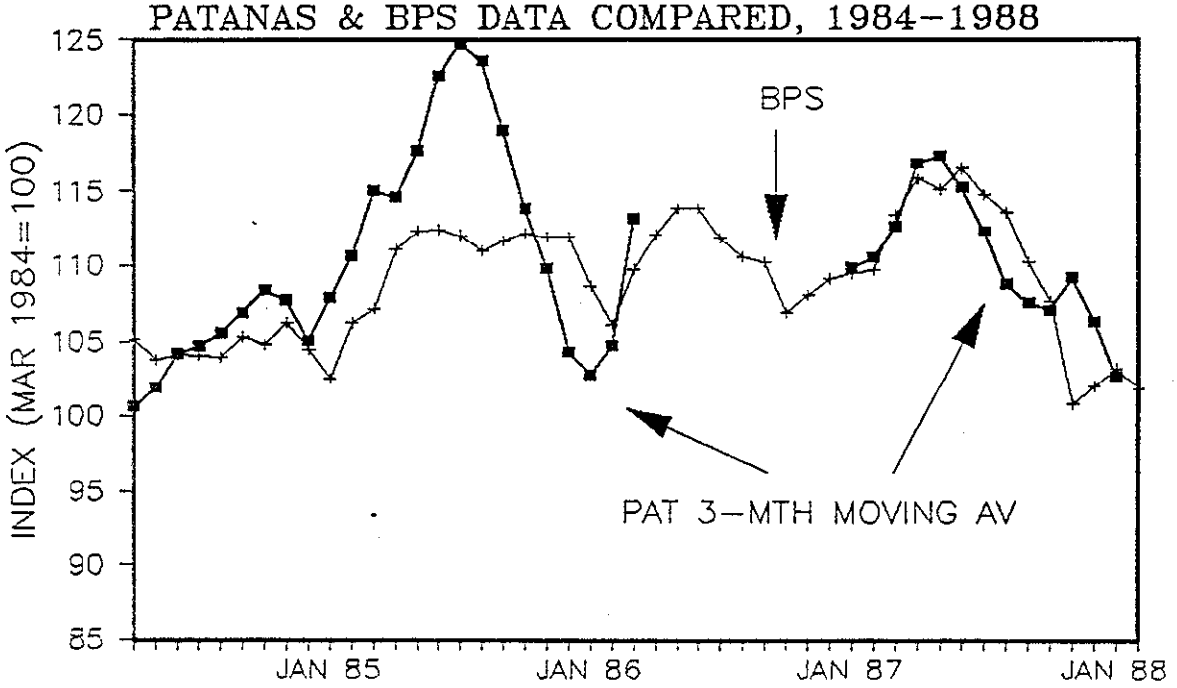


Figure 16
WEST JAVA, REAL WAGES, PLANTING
PATANAS & BPS DATA COMPARED, 1984–1988

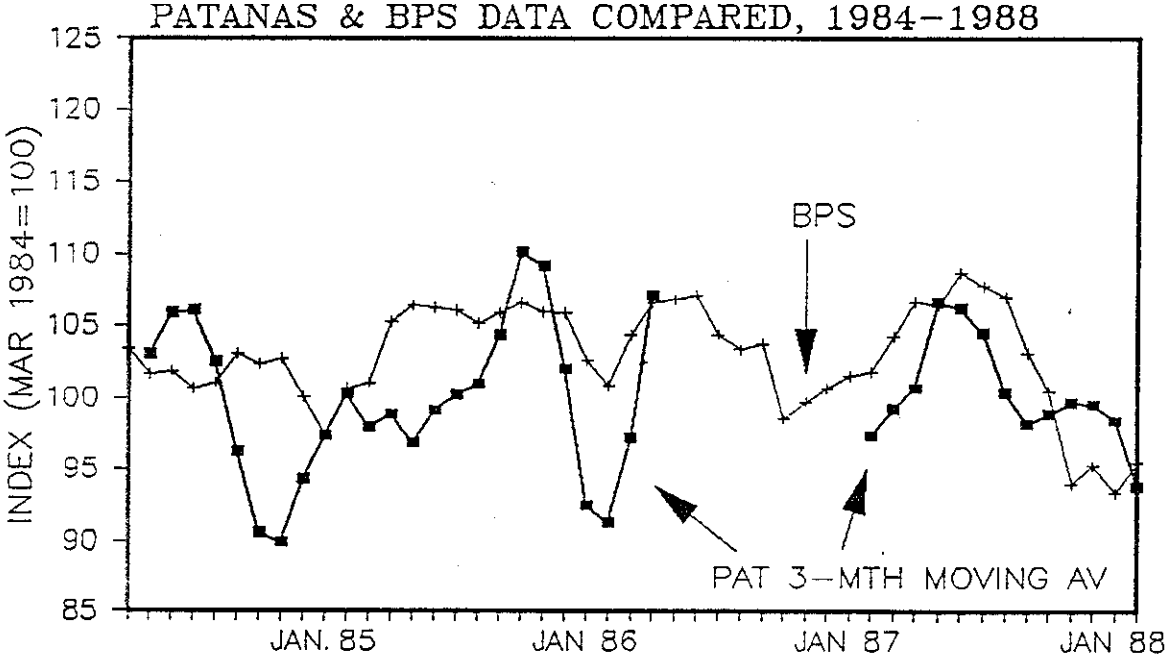


Figure 17
WEST JAVA, NOMINAL WAGES, HOEING
PATANAS & BPS DATA COMPARED, 1984–88

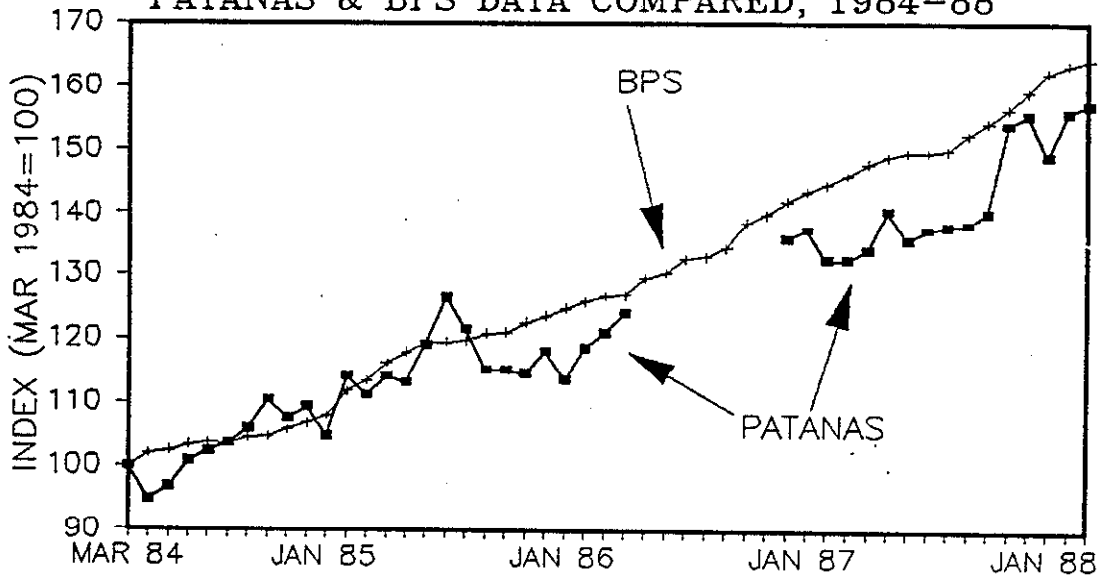


Figure 18
WEST JAVA, NOMINAL WAGES, PLANTING
PATANAS & BPS DATA COMPARED, 1984–88

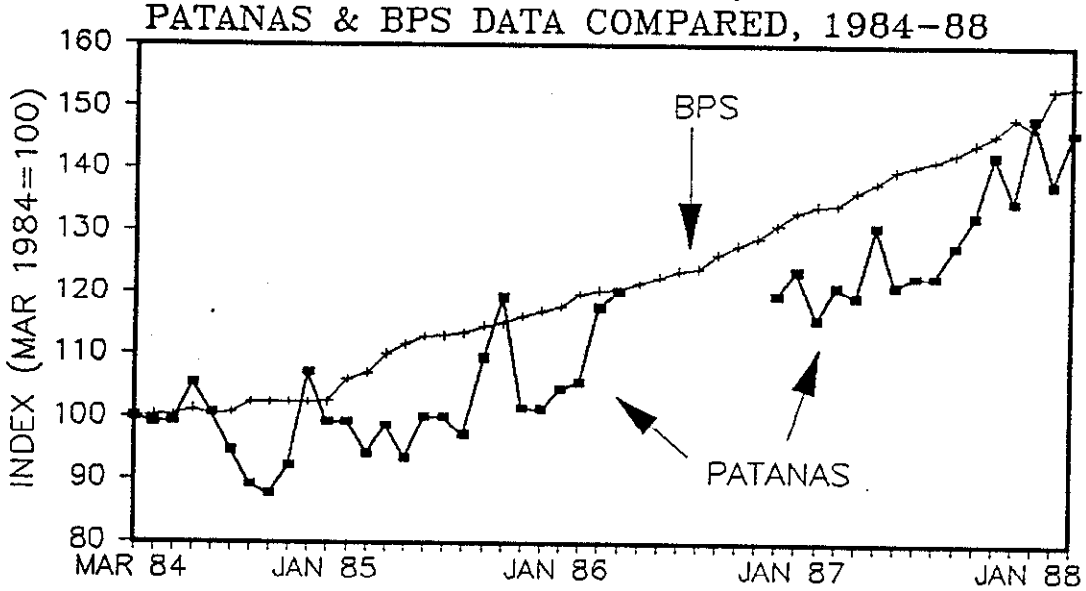


Figure 19

WEST JAVA, CONSUMER PRICE INDICES
PATANAS & BPS DATA COMPARED, 1984–88

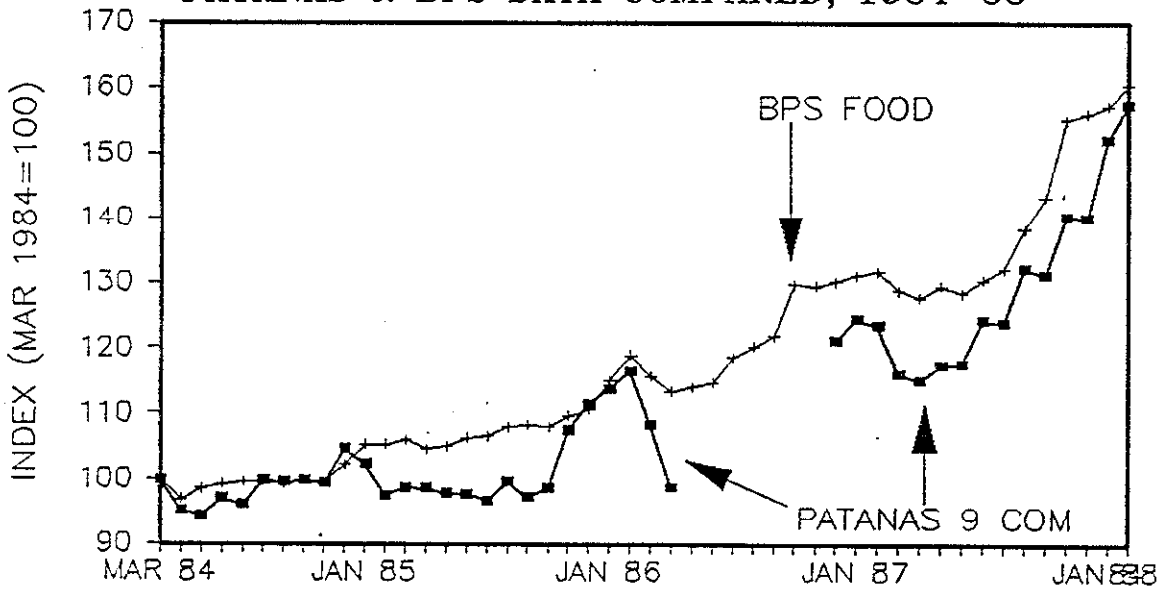
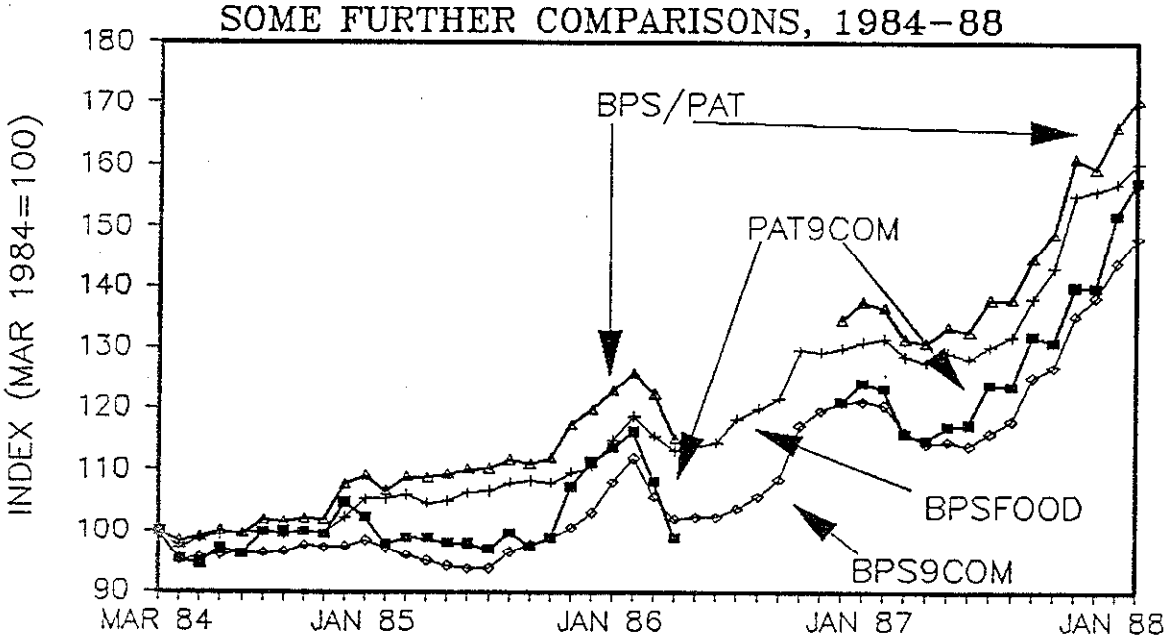


Figure 20

WEST JAVA, CONSUMER PRICE INDICES
SOME FURTHER COMPARISONS, 1984–88



The similarity of the price observations of the two surveys is underlined by Figure 20, which again suggests that differences in weighting[8] are the more important cause of divergences. The nine-commodity index using BPS prices (BPS9COM in Figure 20) is closer to the nine-commodity index using PATANAS prices (PAT9COM) than to the food price index using BPS prices (BPSFOOD). The substitution of PATANAS rice prices in the BPS food price index (resulting in BPS/PAT) does not appear to make much difference.

As shown in Figure 21, the greater impact on the path of real hoeing wages (as observed by BPS) comes from changing the deflator to give greater weight to rice (from BPSFOOD to BPS9COM) rather than from changing the rice price (from BPSFOOD to BPS/PAT). As illustrated in Figure 22, the easiest way of improving the BPS picture of real wage trends in recent years is to merely increase the weight of rice within the BPSFOOD deflator.

In short, the correspondence between the two stories about agricultural real wages is more striking in West than in East Java. And once again the central importance of price index weighting is evident.

V. CONCLUSIONS

The comparison of the BPS data with the PATANAS data would appear to induce more rather than less confidence in the reliability of the data from the BPS farmers' terms of trade survey as a guide to real wage trends in East and West Java, at least over the periods covered by both surveys. A puzzle remains about the divergence between the two pictures of recent trends in nominal planting and weeding wages in East Java. But that may be more of a puzzle for PATANAS than for BPS. Why should wage differentials between men and women, which have

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8 The weight of rice in the BPS food price index (35%) is heavier in West than in East Java but s

Figure 21

WEST JAVA, REAL WAGES, HOEING
BPS DATA, VARYING DEFLATORS, 1984–88

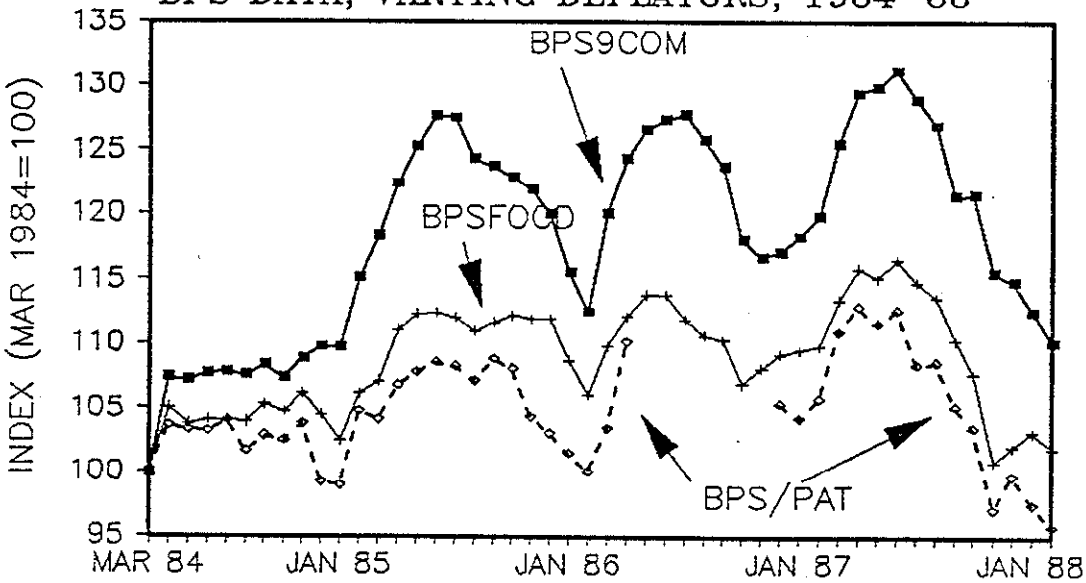
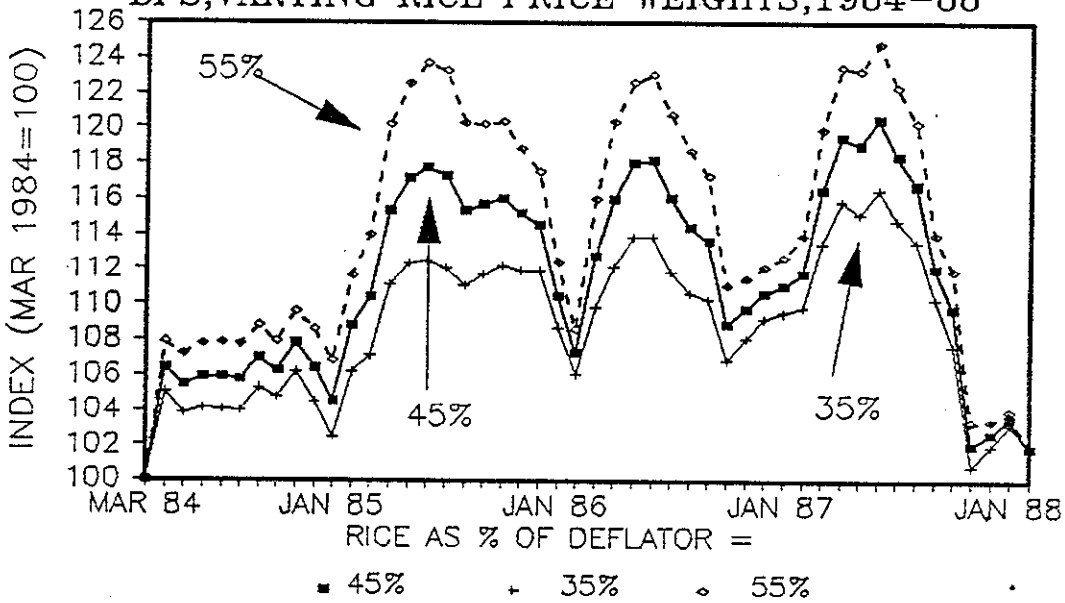


Figure 22

WEST JAVA, REAL WAGES, HOEING
BPS,VARYING RICE PRICE WEIGHTS,1984–88



tended to remain fairly stable, begin to narrow during 1987, as the PATANAS data suggest that they do?

The main area for further work is with the deflator. The most critical question is the determination of the proper weight for rice within the deflator. The BPS finding that agricultural real wages have been falling in recent years depends crucially on the assumption that rice represents a relatively small proportion of wage-earners' spending on food. This assumption needs to be explored further in the light of regional data on consumption patterns, including those generated by other parts of the PATANAS survey.

APPENDIX 1:
EAST JAVA: AGRICULTURAL WAGE RATES - BPS & PATANAS COMPARED

	NOMINAL WAGES PLANTING\MENANAM				NOMINAL WAGES GOEING\MENCANGKUL				NOMINAL WAGES WEEDING/MENYIANG			
	PATANAS		BPS		PATANAS		BPS		PATANAS		BPS	
	Rp	Index	Rp	Index	Rp	Index	Rp	Index	Rp	Index	Rp	Index
APR 83	319.5	100	487	100	553.2	100	737	100	341.7	100	530	100
MAY 83	325.2	102	493	101	563.4	102	746	101	372.2	109	539	102
JUN 83	329.8	103	498	102	590.7	107	754	102	387.0	113	547	103
JUL 83	328.0	103	503	103	590.8	107	764	104	371.9	109	554	105
AUG 83	344.4	108	513	105	637.7	115	777	105	378.2	111	563	106
SEP 83	343.8	108	518	106	642.4	116	788	107	383.2	112	566	107
OCT 83	343.9	108	523	107	652.1	118	799	108	380.8	111	572	108
NOV 83	342.5	107	538	110	646.4	117	810	110	365.2	107	587	111
DEC 83	362.3	113	551	113	672.8	122	822	112	358.8	105	602	114
JAN 84	357.4	112	563	116	668.1	121	835	113	367.4	108	616	116
FEB 84	374.6	117	580	119	670.5	121	853	116	372.9	109	631	119
MAR 84	387.7	121	588	121	665.8	120	871	118	385.3	113	639	121
APR 84	398.7	125	595	122	679.9	123	883	120	397.0	116	645	122
MAY 84	376.1	118	602	124	694.5	126	893	121	391.1	114	650	123
JUN 84	386.1	121	607	125	666.7	121	900	122	378.5	111	654	123
JUL 84	387.6	121	612	126	697.9	126	904	123	382.2	112	659	124
AUG 84	390.6	122	613	126	676.9	122	904	123	379.9	111	661	125
SEP 84	388.1	121	612	126	693.9	125	906	123	370.1	108	662	125
OCT 84	378.7	119	615	126	698.6	126	913	124	369.5	108	665	125
NOV 84	390.3	122	618	127	719.7	130	919	125	376.6	110	667	126
DEC 84	392.9	123	625	128	717.4	130	930	126	382.4	112	675	127
JAN 85	397.6	124	628	129	729.7	132	966	131	385.8	113	682	129
FEB 85	400.4	125	633	130	698.3	126	980	133	385.8	113	686	129
MAR 85	392.0	123	641	132	703.1	127	996	135	393.1	115	691	130
APR 85	405.6	127	648	133	741.8	134	1006	137	396.6	116	696	131
MAY 85	413.8	130	651	134	708.5	128	1021	139	396.2	116	699	132
JUN 85	424.2	133	655	135	742.9	134	1023	139	414.2	121	702	132
JUL 85	385.5	121	658	135	749.0	135	1033	140	377.5	110	703	133
AUG 85	381.8	120	665	137	747.8	135	1041	141	388.5	114	709	134
SEP 85	391.3	122	662	136	678.1	123	1039	141	378.6	111	704	133
OCT 85	412.7	129	663	136	661.4	120	1040	141	409.7	120	706	133
NOV 85	433.8	136	671	138	695.5	126	1053	143	422.3	124	710	134
DEC 85	443.5	139	674	138	734.1	133	1056	143	432.5	127	713	135
JAN 86	450.8	141	674	139	752.3	136	1064	144	435.0	127	714	135
FEB 86	431.4	135	675	139	761.4	138	1065	145	425.0	124	717	135
MAR 86	431.4	135	676	139	761.4	138	1073	146	420.0	123	719	136
APR 86	431.4	135	686	141	761.4	138	1082	147	420.0	123	727	137
MAY 86	436.2	137	688	141	765.9	138	1093	148	425.0	124	736	139
JUN 86	436.2	137	687	141	765.9	138	1096	149	425.0	124	736	139
JUL 86	444.7	139	690	142	788.9	143	1100	149	418.9	123	737	139
AUG 86	450.9	141	692	142	795.7	144	1102	150	431.6	126	738	139
SEP 86	491.4	154	699	144	839.2	152	1117	152	470.6	138	747	141
OCT 86	487.4	153	716	147	844.0	153	1141	155	476.5	139	766	145
NOV 86	478.2	150	722	148	850.0	154	1145	155	470.6	138	776	146
DEC 86	478.2	150	732	150	850.0	154	1156	157	476.0	139	785	148
JAN 87	487.4	153	734	151	811.4	147	1163	158	483.2	141	794	150
FEB 87	504.1	158	744	153	793.9	144	1167	158	498.5	146	796	150
MAR 87	506.5	159	746	153	808.3	146	1175	159	501.7	147	803	152
APR 87	528.9	166	748	154	829.7	150	1175	160	523.1	153	804	152

MAY 87	516.5	162	753	155	834.5	151	1179	160	526.8	154	810	153
JUN 87	515.2	161	760	156	815.4	147	1186	161	518.1	152	814	154
JUL 87	522.2	163	763	157	818.4	148	1191	162	518.6	152	819	154
AUG 87	551.0	172	767	158	843.0	152	1196	162	544.5	159	821	155
SEP 87	560.3	175	774	159	852.3	154	1199	163	535.6	157	823	155
OCT 87	558.6	175	778	160	853.6	154	1209	164	555.9	163	832	157
NOV 87	576.0	180	786	161	848.8	153	1221	166	579.2	170	837	158
DEC 87	595.9	187	790	162	857.3	155	1226	166	577.0	169	838	158
JAN 88	666.0	208	797	164	959.1	173	1234	167	658.0	193	844	159
FEB 88	666.0	208	800	164	952.3	172	1240	168	659.6	193	844	159
MAR 88	662.7	207	807	166	952.3	172	1249	170	653.3	191	851	160

APPENDIX 2:
EAST JAVA: AGRICULTURAL WAGE RATES - BPS & PATANAS COMPARED

	REAL WAGES				REAL WAGES				REAL WAGES			
DEFLATORS=	PLANTING\MENANAM				HOEING\MENCANGKUL				WEEDING/MENYIANG			
PAT9COM	PATANAS		BPS		PATANAS		BPS		PATANAS		BPS	
BPSFOOD	Rp	Index	Rp	Index	Rp	Index	Rp	Index	Rp	Index	Rp	Index
APR 83	319	100	487	100	553	100	737	100	342	100	530	100
MAY 83	317	99	483	99	550	99	732	99	363	106	529	100
JUN 83	310	97	468	96	556	101	708	96	364	107	514	97
JUL 83	303	95	455	94	546	99	691	94	344	101	501	95
AUG 83	307	96	446	92	568	103	676	92	337	99	489	92
SEP 83	289	90	424	87	540	98	645	88	322	94	464	87
OCT 83	288	90	432	89	546	99	660	90	319	93	472	89
NOV 83	287	90	448	92	542	98	675	92	306	90	490	92
DEC 83	299	94	455	93	556	100	679	92	296	87	497	94
JAN 84	275	86	443	91	514	93	657	89	282	83	485	91
FEB 84	289	90	432	89	517	94	635	86	288	84	470	89
MAR 84	307	96	445	91	527	95	660	90	305	89	484	91
APR 84	316	99	442	91	539	97	656	89	315	92	479	90
MAY 84	295	92	424	87	544	98	628	85	307	90	457	86
JUN 84	304	95	428	88	525	95	635	86	298	87	462	87
JUL 84	305	95	439	90	549	99	648	88	301	88	472	89
AUG 84	305	96	446	92	529	96	659	89	297	87	481	91
SEP 84	302	94	455	93	539	97	673	91	288	84	492	93
OCT 84	295	92	474	97	543	98	704	95	287	84	512	97
NOV 84	305	95	486	100	562	102	723	98	294	86	525	99
DEC 84	303	95	457	94	553	100	679	92	295	86	493	93
JAN 85	314	98	420	86	577	104	645	88	305	89	456	86
FEB 85	324	101	430	88	565	102	667	91	312	91	467	88
MAR 85	324	101	413	85	581	105	641	87	325	95	445	84
APR 85	340	106	430	88	622	112	667	91	332	97	462	87
MAY 85	343	107	427	88	588	106	669	91	329	96	458	86
JUN 85	353	110	423	87	618	112	660	90	345	101	453	86
JUL 85	310	97	407	84	603	109	639	87	304	89	435	82
AUG 85	290	91	409	84	568	103	641	87	295	86	436	82
SEP 85	293	92	419	86	508	92	658	89	284	83	446	84
OCT 85	305	96	431	89	489	88	676	92	303	89	459	87
NOV 85	321	100	432	89	514	93	678	92	312	91	458	86
DEC 85	323	101	440	90	535	97	690	94	315	92	466	88
JAN 86	322	101	440	90	538	97	694	94	311	91	466	88
FEB 86	306	96	428	88	541	98	675	92	302	88	454	86
MAR 86	319	100	431	89	563	102	684	93	310	91	458	86
APR 86	319	100	438	90	563	102	692	94	310	91	465	88
MAY 86	327	102	443	91	575	104	704	96	319	93	474	89
JUN 86	325	102	436	90	571	103	696	94	317	93	467	88
JUL 86	324	101	402	83	574	104	642	87	305	89	430	81
AUG 86	320	100	415	85	565	102	662	90	306	90	443	84
SEP 86	334	105	397	82	571	103	635	86	320	94	424	80
OCT 86	330	103	367	75	571	103	586	79	323	94	393	74
NOV 86	324	101	380	78	576	104	602	82	319	93	408	77
DEC 86	324	101	406	83	575	104	640	87	322	94	435	82
JAN 87	333	104	392	81	555	100	621	84	330	97	424	80
FEB 87	340	106	386	79	536	97	606	82	336	98	414	78
MAR 87	351	110	407	84	561	101	642	87	348	102	439	83

MAY 87	362	113	403	83	585	106	631	86	369	108	434	82
JUN 87	351	110	408	84	555	100	636	86	353	103	437	82
JUL 87	355	111	402	83	556	100	627	85	352	103	431	81
AUG 87	369	116	395	81	565	102	617	84	365	107	423	80
SEP 87	349	109	364	75	531	96	563	76	334	98	387	73
OCT 87	342	107	348	71	523	95	541	73	341	100	372	70
NOV 87	331	104	320	66	488	88	497	67	333	97	341	64
DEC 87	335	105	334	69	482	87	518	70	325	95	354	67
JAN 88	368	115	352	72	530	96	545	74	364	106	373	70
FEB 88	361	113	368	76	516	93	571	77	357	105	389	73
MAR 88	387	121	392	80	557	101	606	82	382	112	413	78

APPENDIX 3:
WEST JAVA: AGRICULTURAL WAGE RATES - BPS & PATANAS COMPARED

	NOMINAL WAGES				NOMINAL WAGES				NOMINAL WAGES			
	PLANTING\MENANAM				HOEING\MENCANGKUL				WEEDING/MENYIANG			
	PATANAS		BPS		PATANAS		BPS		PATANAS		BPS	
	Rp	Index	Rp	Index	Rp	Index	Rp	Index	Rp	Index	Rp	Index
MAR 84	556	100	577	100	850	100	889	100			565	
APR 84	552	99	578	100	807	95	907	102			566	
MAY 84	553	99	578	100	823	97	911	102			570	
JUN 84	586	105	583	101	857	101	920	103			577	
JUL 84	560	101	579	100	871	102	923	104			581	
AUG 84	526	95	581	101	881	104	922	104			582	
SEP 84	496	89	590	102	901	106	930	105			588	
OCT 84	488	88	590	102	939	110	932	105			593	
NOV 84	513	92	590	102	915	108	942	106			594	
DEC 84	596	107	590	102	929	109	951	107			600	
JAN 85	552	99	591	102	892	105	960	108			604	
FEB 85	552	99	611	106	971	114	994	112			622	
MAR 85	524	94	617	107	946	111	1009	113			628	
APR 85	549	99	635	110	971	114	1034	116			636	
MAY 85	520	93	644	112	963	113	1049	118			645	
JUN 85	557	100	651	113	1013	119	1063	120			647	
JUL 85	557	100	652	113	1075	127	1063	119			649	
AUG 85	540	97	654	113	1033	122	1065	120			650	
SEP 85	609	110	661	115	979	115	1075	121			656	
OCT 85	663	119	663	115	979	115	1077	121			659	
NOV 85	564	102	670	116	975	115	1090	123			663	
DEC 85	564	101	675	117	1005	118	1100	124			670	
JAN 86	582	105	679	118	967	114	1110	125			688	
FEB 86	588	106	691	120	1009	119	1120	126			699	
MAR 86	655	118	695	121	1029	121	1128	127			702	
APR 86	669	120	696	121	1055	124	1129	127			703	
MAY 86		0	701	122		0	1153	130			712	
JUN 86		0	707	123		0	1159	130			714	
JUL 86		0	713	124		0	1179	133			721	
AUG 86		0	716	124		0	1182	133			724	
SEP 86		0	729	126		0	1194	134			738	
OCT 86		0	737	128		0	1233	139			752	
NOV 86		0	744	129		0	1244	140			759	
DEC 86	665	120	755	131	1154	136	1262	142	835	100	775	100
JAN 87	688	124	767	133	1167	137	1276	143	825	99	788	102
FEB 87	644	116	773	134	1125	132	1286	145	893	107	794	102
MAR 87	674	121	774	134	1125	132	1299	146	885	106	808	104
APR 87	664	119	786	136	1139	134	1316	148	898	108	814	105
MAY 87	727	131	794	138	1194	140	1325	149	898	108	822	106
JUN 87	675	121	805	140	1153	136	1330	150	961	115	824	106
JUL 87	683	123	810	141	1167	137	1331	150	955	114	824	106
AUG 87	683	123	815	141	1171	138	1334	150	960	115	824	106
SEP 87	710	128	822	142	1175	138	1355	152	935	112	828	107
OCT 87	737	132	830	144	1192	140	1371	154	975	117	833	107
NOV 87	791	142	840	146	1308	154	1391	156	1020	122	842	109
DEC 87	750	135	856	148	1321	155	1415	159	985	118	862	111
JAN 88	825	148	846	147	1267	149	1442	162	995	119	889	115
FEB 88	765	138	882	153	1325	156	1453	163	1015	122	894	115

APPENDIX 4:
WEST JAVA: AGRICULTURAL WAGE RATES - BPS & PATANAS COMPARED

	REAL WAGES				REAL WAGES				REAL WAGES			
DEFLATORS=	PLANTING\MENANAM				HOEING\MENCANGKUL				WEEDING/MENYIANG			
PAT9COM	PATANAS		BPS		PATANAS		BPS		PATANAS		BPS	
BPSFOOD	Rp	Index	Rp	Index	Rp	Index	Rp	Index	Rp	Index	Rp	Index
MAR 84	556	100	577	100	850	100	889	100				
APR 84	579	104	596	103	847	100	935	105				
MAY 84	584	105	586	102	870	102	923	104				
JUN 84	603	108	587	102	882	104	926	104				
JUL 84	582	105	580	101	905	107	926	104				
AUG 84	526	95	583	101	882	104	925	104				
SEP 84	497	89	594	103	903	106	937	105				
OCT 84	488	88	590	102	940	111	932	105				
NOV 84	515	93	592	103	920	108	945	106				
DEC 84	569	102	577	100	887	104	929	104				
JAN 85	539	97	561	97	871	102	912	103				
FEB 85	565	102	580	101	993	117	944	106				
MAR 85	530	95	583	101	957	113	953	107				
APR 85	555	100	607	105	983	116	988	111				
MAY 85	530	95	613	106	982	116	999	112				
JUN 85	568	102	613	106	1034	122	1000	112				
JUL 85	574	103	611	106	1109	131	997	112				
AUG 85	542	97	606	105	1037	122	987	111				
SEP 85	625	112	610	106	1005	118	993	112				
OCT 85	671	121	615	107	991	117	998	112				
NOV 85	526	95	611	106	907	107	995	112				
DEC 85	506	91	610	106	902	106	995	112				
JAN 86	511	92	592	103	850	100	967	109				
FEB 86	505	91	581	101	868	102	943	106				
MAR 86	605	109	602	104	951	112	977	110				
APR 86	677	122	615	107	1067	126	997	112				
MAY 86	ERR	ERR	616	107	ERR	ERR	1012	114				
JUN 86	ERR	ERR	618	107	ERR	ERR	1012	114				
JUL 86	ERR	ERR	602	104	ERR	ERR	995	112				
AUG 86	ERR	ERR	596	103	ERR	ERR	984	111				
SEP 86	ERR	ERR	598	104	ERR	ERR	981	110				
OCT 86	ERR	ERR	568	99	ERR	ERR	950	107				
NOV 86	ERR	ERR	575	100	ERR	ERR	961	108				
DEC 86	549	99	581	101	953	112	971	109	835	100	775	100
JAN 87	554	100	585	102	938	110	974	109	804	96	782	101
FEB 87	522	94	587	102	911	107	977	110	877	105	784	101
MAR 87	581	104	601	104	970	114	1009	113	924	111	817	105
APR 87	578	104	615	107	991	117	1030	116	946	113	829	107
MAY 87	620	112	614	106	1018	120	1024	115	928	111	826	107
JUN 87	574	103	627	109	981	115	1036	117	990	119	834	108
JUL 87	550	99	622	108	940	111	1021	115	932	112	821	106
AUG 87	551	99	617	107	945	111	1010	114	939	112	811	105
SEP 87	537	97	595	103	889	105	981	110	857	103	779	101
OCT 87	562	101	580	101	908	107	957	108	900	108	756	98
NOV 87	565	102	542	94	933	110	897	101	882	106	706	91
DEC 87	535	96	549	95	943	111	907	102	852	102	719	93
JAN 88	542	98	538	93	833	98	918	103	793	95	735	95
FEB 88	486	87	550	95	842	99	906	102	781	94	725	93

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Design for a Quick Quarterly Survey of Manufacturing Earnings

Statistical Paper #23

By

Chris Manning

August 1989

(DSP #92)

Table of Contents

Annex IV : Kuesioner versi BPS: Survei pendapatan karyawan sektor industri

Annex V : Penjelasan/petunjuk pengisian kuesioner pendapatan buruh, versi BPS

Note 1 :

Overall Report on DSP Consultancy at BPS, July 1 - 14, 1989

1. Overall the consultancy has been very successful in terms of the original objectives to design and pretest a questionnaire as a starting point for providing one alternative survey which might eventually replace the Survei Upah Buruh. Both Dr. Alex Korns and myself, and Mr. Saudin and Mr. Manaf are broadly in agreement regarding (i) the form of the questionnaire, (ii) the basic measure of wages (weekly earnings), which should be used, (iii) the procedures which might be adopted for a pilot study to test both the questionnaire and procedures of data collection and reporting, and (iv) the general form which a new survey might take within a wider framework of a revamped wage data collection effort for non-agricultural wage statistics.

2. The key recommendations coming out of the consultancy are summarized in the following appended documents

   (1) Dr. Korns' note entitled Proposal for a New Survey of Average Weekly Earnings for Production Workers (July 12, 1989).

   (2) A draft questionnaire entitled Survey Pendapatan Buruh Sektor Industri consisting of nine sections (A - I) and including a detailed set of instructions for enumeration.

   (3) A general description of the aims of the questionnaire and explanation of each of its major sections summarized in my note Survei Pendapatan Buruh Sektor Industri: Beberapa Penjelasan Atas Struktur Kwesioner dan Pertanyaan yang Dicantumkan Dalam Draft Kwesioner (July 14, 1989).

(4) A summary of the major findings of the field survey of 10 enterprises and several recommendations based on this for the pilot study in my note entitled: A Labour Earnings Survey in Manufacturning : Note on the Results of a Presurvey of Establishments in Jakarta, July 4 - 10, 1989.

3. Activities undertaken during the consultancy were as follows

(i) Preparation of a draft questionnaire based on earlier discussions with Dr. Korns and principles set out in Dr. Korns' note to Mr. Sugito of June 21, 1989 and my reply to that note on June 27, 1989.

(ii) Pretesting of the draft questionnaire in the field.

(iii) Revision of the questionnaire.

(iv) Preparation of notes on the questionnaire and field survey for a seminar at BPS attended by BPS, Depnaker and BAPPENAS staff.

(v) Revision of the questionnaire and notes based on comments made in the seminar, especially by Dr. Sayuti Hasibuan from BAPPENAS.

4. Throughout the very short consultancy I worked closely with Dr. Korns and the staff of the Wages Sub Division at BPS. The latter were extremely helpful and cooperative and I was able to learn much from their considerable experience in the collection and processing of wage data.

5. Owing to the time constraint, I was not able to complete a general note on (i) how the Earnings Survey might fit in with a broader, revised data collection effort in the area of wages at BPS and (ii) broad principles which might be followed in designing a sample for the Earnings Survey. I have agreed with Dr. Korns to write this note as soon as possible and to send it to him next week.

Note 2 :

Role of a L & M Manufacturing Earnings Survey in Overall Wage Data Collection Efforts at BPS

(July 7, 1989)

1. In this note it is argued that a L & M Manufacturing Earnings Survey is probably the most immediately appropriate survey which might be undertaken as a partial replacement of the Survei Upah. However, I suggest also that a least one other regular wages survey and possibly some periodic occupational wages surveys would also need to be introduced to fully replace reporting on key aspects of the labour presently covered by the Survei Upah.

2. There are three key aspects of wage change and structure which are likely to be of immediate concern to policy makers:

   (i) Short-term wage rate/earnings fluctuations: These provide an indicator of immediate labour market imbalance, and an early warning indicator for policy makers concerned with employment and income developments.

   (ii) Regional wage differentials: These provide an indicator of the degree of spatial inequality and how this changes over time; they are likely to be of particular significance in Indonesia because of great interregional diversity and also because interregional inequalities are a key focus of central government development programs.

   (iii) Occupational wage differentials: These are important for indicating both general and industry-specific im-

balance in the supply of certain categories of skilled and professional manpower. They may be important for educational policy and also are considered an important indicator of changing patterns of income distribution with development.

Some other aspects of wage structure such as inter-industry and inter-firm differentials by size, ownership category, etc.) are also of interest. But these are mainly useful in providing a picture of how the labour markets operate, and are of more interest to academics and structural reformers than to those concerned with immediate and medium term policy issues.

3. The present Survei Upah attempts to provide information on each of the three aspects of the labour market outlined above and also covers a wide range of industries. As Alex Korns suggests in his paper Wage Data at BPS (1988), chiefly because of the multipurpose nature of the Survei Upah (i) there are very considerable delays in recording and processing data and (ii) the data are generally of a low quality. There is an overwhelming case in favour of replacing the present Survei Upah with several focussed wage data collection efforts to provide information on the three topics mentioned above. Such an approach is likely to provide data of higher quality and of much greater value to policy makers. It is also likely to involve substantially less cost to BPS and (in terms of time required to fill in the present Survei Upah questionnaire) to enterprises included in the Survei Upah sample.[1]

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[1] Some 2,000 enterprises fill in the Survei Upah questionnaire 4 times each year, with average time required to fill in the data probably ranging from around 4-20 man-hours of clerical/lower managerial staff time per quarter. Additional, often considerable, BPS time is also devoted to editing the data.

4. The proposed L & M Manufacturing Earnings Survey would fulfil the principal role of providing data on short-term wage fluctuations. It would also give some indication of labour market developments in several key L & M manufacturing regions, but could not be expected to provide a comprehensive regional coverage of wage developments. There are two principal reasons why it could not do this:

   (i) At least in the foreseable future (perhaps the next five years) it is most unlikely that fast quarterly reporting of survey data could be achieved for all or even most provinces of Indonesia (on a regular basis from the same sample).

   (ii) Limiting the earnings survey to L & M manufacturing industries largely excludes around half of all Indonesia's 27 provinces, bearing in mind that L & M manufacturing is relatively insignificant in these regions (see my Note on Sampling for an L & M Manufacturing Earnings Survey).

5. The choice of L & M manufacturing for the quarterly earnings survey can be justified on the following grounds:

   (i) The manufacturing sector is expected to play a central role in develoment strategy inthe immediate future, and monitoring of employment and earnings changes in this sector would provide a very useful indicator of development performance.

   (ii) The L & M subsector is appropriate for such a survey because of the availability of a ready sampling frame and the relatively large sample of employees which could be covered at low cost. An alternative is the small scale manufacturing sector which would probably be more appropriate in terms of examining wages at the lower end of the market. But there would be problems

in designing a sample frame and costs would be considerably higher for an equivalent sample of workers. In addition there are likely to be much greater delays in reporting of quarterly data, thus defeating one of the central objectives of providing an early warning indicator of labour market developments.

(iii) The L & M sample has the additional advantage of covering many of the key new export activities (wearing apparel, plywood, machine goods) which are mainly in the L & M sector (see the Sensus Ekonomi tables). Provided that the L & M manufacturing sample includes some of the large, low wage and labour intensive and agro-processing industries, it should, moreover, be able to monitor wage and exployment trends at the lower end of the market.

6. As noted, the L & M Earnings Survey would not provide a complete regional coverage of wage developments. This is not a major shortcoming in tems of an early warning indicator since the Indonesian labour market is characterized by big levels in interregional labour mobility (see various pieces by myself, Dr. Graeme Hugo and others). But a more complete coverage or regional wages could be institured throughout Indonesia through an occupationa wage survey of several highly homogeneous service trade activities. Good examples of these would be shop assistants, restaurant waiters/waitresses, and possibly hotel assistants and fixed wage kuli pasar. Such a survey could be conducted once or twice annually in all provinces and major urban centres in Indonesia. This would provide a powerful indicator of income trends in urban Indonesia. Although the feasibility of such a study would need to be tested, it is quite possible that it could be fully implemented at relatively small cost in three years time.

7. Ideally rural wages should also be monitored more comprehensively throughout Indonesia. The most obvious sector is rice, both because of its wide regional spread and the importance of wage labour in this sector. To be a reliable indicator of rice wages the sample would clearly have to be larger than that covered in the farmers' terms of trade series. Such a survey might also be introduced gradually, perhaps with the design of a pilot on one Java province over the next three years with the aim of having fully fledged survey up and running in around 5 years. Such a survey would be quite complex for a number of reasons:

(i) it would depend on a sample of individual farmers

(ii) it would need to be implemented on a quarterly basis (though not more frequently than this) to capture seasonal variations

(iii) the design of the questionnaire is not altogether simple given in-kind payments (meals) and varying institutional arrangements governing rice sector wages.

I, nevertheless, believe such a survey would be an invaluable complement to a L & M Earning Survey and a Service Sector Occupation Survey. All three surveys woulde probably not cost much more than the Survei Upah but could provide Indonesia with a far more policy relevant, high quality set of wage data. Increasingly, this will be needed by planners, administrators and researchers in the future.

Note 3 :

Sampling for an L & M Manufacturing Earnings Survey

(August 22, 1989)

In this very brief note I suggest several guidelines which I feel should be considered in the design of the earnings survey. The following points are considered:

(i) regional coverage
(ii) industry coverage
(iii) size distribution of firms.

My general recommendation is that the regional coverage should be restricted to the <u>six A category provinces</u> (West, Central and East Java, Jakarta, N. Sumatra and S. Sulawesi), the survey should focus on <u>selected industries</u> within these regions and should include a balance of large and medium scale establishments. A basic assumption is that the survey should aim to cover a maximum of approximately 500 establishments to guarantee a relatively high degree of data reliability and speed of reporting.

A. Regional Change

1. A strong concentration of the worker and firm sample in selected regions is unavoidable in any L & M manufacturing survey, given the high proportion of establishments located in Java and, outside Java, in North Sumatra. In 1986 the share of L & M firms and workers in the A group of provinces was as follows:

	Firms		Employees	
	N	%	N(1000)	%
Jakarta	1798	14	232	14
W. Java	3134	24	393	23
C. Java	2168	17	270	16
E. Java	3038	24	413	25
N. Sumatra	687	5	89	5
S. Sulawesi	158	1	18	1
Sub Total	10983	85	1415	84
Other provinces	1919	15	269	16
All Indonesia	12878	100	1684	100

Even if the earnings survey did attempt to cover many more provinces (as with the current Survei Upah), the overall average and trends would largely reflect trends in earnings in the 4 major Java provinces and North Sumatra. Limiting the sample coverage only to these provinces (plus S. Sulawesi) will enable much more careful monitoring of data collection and document flow. Provision of data of high quality and rapid reporting are two principle objectives of the earnings survey.[2]

2. Restricting coverage to a number of selected industries will also contribute to data quality and help limit the number of inevitable industry-specific definitional and reporting problems (i.e. definition of production workers, industry-specific wage components, etc.). Two types of industries might be considered for inclusion in the sample:

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[2] Although S. Sulawesi's share of total L & M employment is very small, it is recommended that this province be included to (i) provide data from two outer island provinces (ii) ensure coverage of the major economic centre in Eastern Indonesia.

(i) Major industries in terms of employment nationally and concentrated in one or more of the six provinces. These would include:

(1) Weaving (W, C, E Java)
(2) Wearing apparel (Jakarta, W Java)
(3) Kretek cigarettes (C and E Java) and tobacco processing (E Java)
(4) Sugar (C and E Java)
(5) Tea (C Java, N Sumatra)
(6) Vegetable oil (N Sumatra)
(7) Plastics (Jakarta, E Java)
(8) Tyres and rubber products (W Java and N Sumatra)
(9) Printing (Jakarta)
(10) Paper (E Java)
(11) Vehicle assembly and transport equipment (Jakarta and W Java)
(12) Cement/fertiliser (W Java, E Java)

In most of these industries firm size is well above average for the L & M sector as a whole. Altogether these three- and five-digit industries in the 5 major provinces probably account for about 40-50% of all L & M manufacturing employment in Indonesia in 1987.

(ii) Several industries are represented in all six provinces (and widely throughout Indonesia) but are relatively small in terms of average firm size and total employment. These are principally food processing industries and would include krupuk, noodles, bread and rice milling. These industries, which tend to employ relatively labour intensive techniques and are mostly Indonesian-owned, should provide a picture of wage trends at the lower end of the lobor market.

B. Size Distribution of Firms

3. The procedure adopted by Survei Upah has been to include all firms above a certain size category in the establishment sample and a variable fraction of all remaining firms in various regions (the criteria for this appears to have been ad hoc). A similar procedure might be adopted in the earnings survey. But to ensure that smaller establishments are well represented, a fraction of establishments might be selected based on the number of firms (not workers) within a given firm size categories within a particular industry. For example, a hypothetical case of an industry with significantly different firm sizes might be as follows:

Size Category (No. of Employees)	Population				Sample		
	No. of Firms	% of Firms	No. of Workers	% of Workers	% of Firms* Pop.	No. of Firms	No. of Workers
20-99	100	60	6000	20	20	20	1000
100-499	40	30	10000	33	50	20	5000
500+	10	10	14000	47	100	10	14000
	150	100	30000	100	170	50	20000

* In each size category

The above table distinguishes three firm sizes, and the hypothetical sample covers a census of all very large establishments, and a 50% and 20% fractional for the smaller size categories. This industry might be thought of as broadly representative of weaving and spinning, kretek, tobacco, sugar. A different procedure might need to be adopted for industries with relatively small average size of establishment such as the food processing industries. Also in these industries a larger sampling fraction might be needed in North Sumatra and probably complete coverage in South Sulawesi. Two sets of data maight be tabulated (i) average

earnings of production workers weighted by firms size (ii) average earnings unweighted by firm size. The former would be the main data published but the latter might also be published for the total index for all industries and regions to catch the possible sharper impact of labour market developments on small firms.

C. Other Issues

4. Regarding Alex Korns' suggestion of possible exclusive sampling in some industries (see memo to Pak Sugito June 21, 1989): I don't feel this will be necessary given that the large majority of non-private domestic firms (state enterprises, joint ventures, etc.) will be covered in the large firm category. Although ownership appears to strongly influence wage levels, it may be only one of a wide range of factors affecting wage trends. It is the latter which the earnings seeks to cover. A rotational sample is also probably not practical and provided the questionnaire is simple should not be required.

5. One final point relates to the sample for the pilot. I feel it is essential that this covers a region outside JABOTABEK to ensure that the questionnaire is appropriate for major industries not represented in this region (kretek, tobacco, sugar). The most appropriate region for the pilot is East Java because of its highly diversified manufacturing sector. I suggest that if JABOTABEK has to be included for practical reasons, some survey work should at least be conducted in East Java (the inclusion of more than one province in the pilot also provides an opportunity to check on possible region-specific reporting and data-flow problems).

6. A first step to design a sample would be tabulate a size distribution of firms by selected industries and regions to be used for working out some principles for sample design. This preliminary note might help in focussing such an exercise.

Note 4 :

Proposal for a New Survey of Average Weekly Earnings for Production Workers in Indonesian Manufacturing

By Alex Korns

Statement delivered at BPS, July 12, 1989

In view of the many difficulties with the Survei Upah Buruh of which you are aware, Dr. Manning and I are exploring a new approach to the collection of quarterly wage data for Indonesia.

Let me begin with some background. Four principles have guided our search:

First, we look for ways to get a big result for a small expense. So we focus on a few wage data -- "targets of opportunity," you might say -- that fit two criteria:

They can be collected easily and cheaply.

They fill a pressing national need.

Second, we believe wage surveys need to focus very narrowly on clear objectives. Let's not try to design a survey that meets such diverse objectives as early warning, structural analysis and minimum wage enforcement. That is like trying to design a plane that can at one and the same time fly fast, go high, and carry a heavy load.

Third, we need to reduce the burden on respondents, biar saudara-saudara responden tidak direpotkan. A major reason for late reporting in the Survei Upah Buruh is that filling out the form takes many, many hours, so respondents put off this unwanted task. In our visits to large and medium factories, we found that respondents took a professional interest in our questions about their payroll, and appreciated the fact that we asked them how easy or difficult each question was to answer.

Fourth, Indonesia particularly needs a wage survey that will be useful for "early warning" of labor market trends, that will tell us whether things are getting better or worse. The national unemployment rate, which provides early warning of labor market changes in industrial countries, changes very little in Indonesia from quarter to quarter and therefore does not tell us whether the overall situation is getting better or worse. "Early warning" is especially needed for labor in large and medium manufacturing, the focus of many hopes for growth.

For early warning, a survey must report within 2-3 months, so that we here could be discussing what happened back in May.

Characteristics of an early warning indicator. -- Dr. Manning and I have considered many candidate indicators. Ideally, an early warning indicator should have two characteristics:

First, it must be highly sensitive to changes in business conditions. That is, modest changes in conditions should lead to sharp, clearly observable changes in the indicator. By the same token, the indicator should be one that can go down or up -- not one that is always level or always going up. An indicator that is always level or always going up at the same rate is not very interesting.

Second, an early warning indicator should be robust, that is, free of "noise," or statistical error. If there is too much error, the indicator will give false signals. A simple indicator that comes directly from the books of the establishments is the best guarantee of this. The more steps required to estimate the measure, the more data elements that need to be added or multiplied or divided, the more risk of error.

The BLS Experience. -- In searching for a suitable early warning indicator for Indonesia, we have drawn some lessons from the US experience. In the US, the oldest and most broadly-based wage survey is a national survey of earnings. The survey is taken every month by mail at 300,000 establishments. The survey questionnaire is extremely simple. For manufacturing establishments, it asks only 6 questions. Of these, only 4 are critical. They are:

(i) The total number of production workers

(ii) The total value of their earnings for a single pay period in the reference month

(iii) Their total man-hours of work and paid leave for the pay period.

(iv) Their total overtime man-hours for the pay period.

The BLS survey is used as the basis for 4 monthly indicators for manufacturing that are highly cyclical sensitive:

(i) Production workers in manufacturing

(ii) Average weekly earnings in manufacturing

(iii) Average hourly earnings in manufacturing

(iv) Average overtime hours per worker per week in manufacturing.

These measures are released once a month for a large number of regions and industry groups, and are widely used by analysts of current business conditions in the US.

Problems with a quarterly occupational wage rate survey

As I have said, the oldest and most broadly based wage survey in the US is an earnings survey for all production workers. It is not an occupational wage survey. In fact, BLS does not even have a regular occupational wage survey. BLS does collect them from time to time for specific industries in small geographic areas. Each survey must be designed ad hoc, with a complex, costly pre-survey to determine what are the appropriate occupations to distinguish on the survey form.

The early warning indicator that we propose is not an occupation wage rate. Although it may be useful for other purposes like structural analysis, an occupational wage rate is of little use for early warning. Daily occupational wage rates, excluding overtime, appear to show rather steady rates of increase in Indonesia, and do not clearly fluctuate with labor market conditions. In other words, the time series looks more like a straight line than like a cyclical wavy line. To monitor labor market fluctuations, we need an indicator that clearly fluctuates.

In the US, occupational wage surveys are never used as early warning indicators. They are used for many other purposes, such as helping establishments to compare their costs or workers to compare their wages with others. These purposes do not require that the data be collected every month or quarter, or even every year.

A weakness of the Survey Upah Buruh is that it allows establishments to define occupations as they choose. One weaving establishment may show 10 types of operators, whereas the next establishment just shows "General worker." It is very difficult to tabulate such data. Unfortunately, a proper occupational wage survey would require an expensive and time-consuming pre-survey of each industry group, to determine a common set of occupational classifications for each industry group.

In sum, occupational wage data are useful for some purposes, but an occupational wage survey should be focussed on one industry at a time, and there is no need to conduct it quarterly.

Proposed indicators

Let's stand back for a moment and ask what kind of wage data Indonesia most urgently needs? We believe that Indonesia needs a survey that will quickly and clearly show whether the manufacturing labor market is becomming tighter or looser in a few major sectors -- perhaps as many as 15 major industry groups.

To meet the need, we propose an earnings survey for production workers, similar to the BLS survey. On the basis of field vistis to about 10 establishments, we have developed a short questionnaire that requires most establishments to answer only about 15 questions each month. The number is larger than the US total, 6, because payroll systems in Indonesia are not as uniform as they are in the US. Following Pak Sugito's advice, we have studied how establishments keep their own payroll accounts. Most establishments can probably fill out the form in about 30 minutes. Our proposal is summarized in table 1.

1. The first BLS measure, total production workers, can be obtained from most Indonesian establishments in a minute. Therefore, a survey can be designed to provide an index of the number

of production workers at a fixed panel of establishments. Such an index would be a useful indicator of changes in the labor market. A measure for all manufacturing establishments is not so easy to construct, because it would require identifying new establishments as they come into production, which is very difficult.

2. The second BLS measure, average weekly earnings, is the quotient of total earnings for the pay period divided by the number of production workers. Total earnings for the pay period can be obtained from most Indonesian establishments in a few minutes, and from the remaining establishments in at most 15 minutes. Therefore, average weekly earnings at a fixed panel of establishments can easily be estimated. For reasons that I will state later, this measure can be expected to be robust and very cyclically sensitive.

3. The third BLS measure, average hourly earnings, is not feasible for Indonesia. Average hourly earnings are the quotient of total earnings for the pay period and the number of paid man-hours which is the sum of normal hours plus overtime hours. Unfortunately, the latter measure is difficult to collect. Many firms do not routinely add up hours of lembur and would be forced to refer to records for individual workers to calculate overtime hours. This would be time consuming.

However, an alternative measure, average daily earnings, may be feasible. Dr. Manning will discuss this possibility further.

4. The fourth BLS measure, average number of overtime hours per worker per week, is not feasible for the reasons just stated. An alternative measure, average rupiah value of weekly lembur per worker, is easily obtainable from the books of all Indonesian manufacturing establishments. This measure will perform just as well as a cyclical indicator.

Significance of average weekly earnings. -- As I have said, average weekly earnings promises to be the most robust and cyclically sensitive measure of changes in labor market conditions. The measure will be robust because it will be based on a wage total taken directly from the books of the establishment, divided by an adjustment factor for pay periods longer than one week.

The adjustment factor will depend only on the number of normal working days in the pay period, which the establishment can provide in a minute.

The measure of average weekly earnings is affected by 5 components (shown in table 2), which are all more or less sensitive to changes in the demand for manufacturing labor. For time-rate workers, it is affected by changes in wage rates excluding overtime, in overtime hours, and in short workweeks due to slack demand. For borongan workers, it is affected by changes in the volume of piece work, and in piece rates.

Of the 5 components, least cyclical fluctuation is shown by daily wage rates excluding overtime. This happens to be the measure shown by the Survei Upah Buruh, and, as previously mentioned, it appears to keep going up at a fairly steady rate almost all the time. Unlike the Survei Upah Buruh measure, the proposed measure of average weekly earnings will probably fluctuate a lot, although its longterm trend will be upward. It will sometimes go down. Although it will go up more often than down, its rate of increase will probably fluctuate sharply. This will be useful for signaling. When the indicator shows that the industrial labor market is booming, the government can take steps to facilitate the boom and eliminate bottlenecks. When the indicator shows that the industrial labor market is sagging, the government can take steps to stimulate demand.

Proposed reporting format. -- Ultimately, results of a national survey along the proposed lines could be published in the Indikator Economi every 3 months. The proposed reporting format might look like that shown in table 3, showing only 3 basic indicators for each industry and province. For industries that have strong fluctuations in casual employment, we might want to show separate data for permanent and casual workers. The overall sample should be kept relatively small - 300 to 500 establishments in 6 major provinces - to facilitate rapid reporting.

The shuttle form

I will close with a few words about a major technical innovation that we are proposing for the survey and about the design of a pilot study.

A major technical innovation that we have proposed is the use of a "shuttle form": The single piece of paper that contains columns for many periods (in the US for 12 months). In the US the shuttle form is mailed by the establishment to BLS each month and is then sent back to the establishment by BLS in the same month. In Indonesia, we recommend that the form contain columns for four quarters. The mantri statistik would carry the form to the establishment each quarter, carry it back to his office, store it, then carry it back to the establishment the following month.

In principle, the shuttle form has three major advantages for collecting monthly or quarterly data.

(i) It saves the establishment time by eliminating the need to repeat basic information about the identity of the establishment.

(ii) It helps the establishment to check the consistency of its own responses by making it easy to observe the change from the previous reporting period.

(iii) It helps BPS to check the consistency of responses by making it easy for the mantri to notice and querry inconsistent answers.

In our interviews, establishments and BPS mantris have both expressed enthusiasm on the idea of a shuttle schedule. Further experimentation will no doubt be needed to adapt the idea to Indonesian conditions.

The pilot

We propose that a pilot be conducted for 6 months to a year in a single province. Concentration in a single province will enable us to focus our efforts intensively, especially as regards training. We need a long pilot for three reasons.

First, to modify procedures as we go along until we determine the optimum set of procedures for the survey. Therefore we will need time to study the problems that arise, modify our procedures or questions, and study results of the modification.

Second, since the major purpose of the survey is to produce time series, a trial period is needed to provide time series for a few establishments. If the time series appear erratic, it may mean that firms are responding inconsistently from one month to the next.

Third, the key to the success of the survey is fast reporting by establishments, ideally, within a week or two. Unfortunately, establishments have a habit of responding very late to other BPS questionnaires. BPS field staff has similarly fallen into the habit of sending documents to the central office with considerable lag. To establish a new pattern of cooperation between establishments, BPS field staff, and the central office, considerable educational work may be required.

Conclusion

In sum, we propose a design for a survey of wage data that establishments can easily provide and that will quickly signal ups and downs in the industrial labor market in Indonesia. We recommend that BPS embark on a "rolling" pilot to experiment, by trial and error, with the optimum set of procedures for conducting such a survey and for rapidly reporting its results.

Table 1

COMPARISON OF BLS & PROPOSED BPS INDICATORS

BLS INDICATOR	PROPOSED BPS EQUIVALENT
1. Total production workers	Total production workers at a fixed panel of establishments
2. Average weekly earnings of production workers	Average weekly earnings of production workers
3. Average hourly earnings of production workers	Average daily earnings of production workers
4. Average weekly overtime hours per production worker	Average weekly overtime earnings per production worker

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Table 2

COMPONENTS OF AVERAGE WEEKLY EARNINGS

FOR DAILY RATE WORKERS

[(DAILY WAGE RATE) X (ORDINARY DAYS WORKED)] + OVERTIME

FOR PIECE RATE WORKERS

(PIECE RATE) X (NUMBER OF PIECES COMPLETED)

Table 3

SAMPLE REPORTING FORMAT FOR "INDIKATOR EKONOMI"

		Industry I			Industry II		
		Index of Produc. Workers (1)	Average Weekly Earnings (2)	Average Weekly Lembur (3)	Index of Produc. Workers (4)	Average Weekly Earnings (5)	Average Weekly Lembur (6)
1990	January						
	April						
	July						
	October						
1991	January						
	April						
	July						
	October						

Note 5 :

A Labour Earnings Survey in Manufacturing: Note on the Results of a Presurvey of Establishments in Jakarta, July 4 - July 10, 1989

I. GENERAL

1. Presurvey Coverage (see Annex Table 1)

- 10 establishments:-
  Firm size : range from 60 -1500 employees

- Industries Covered: motor vehicles, tyres, plastics, wearing apparel, spinning-weaving, pharmaceuticals, ship construction/repair

- Firm status : PMA (1), PMDN (6), PT (1), BUMN (2).

2. Firm Cooperation

- Generally no problem: all establishments were quite open and showed payroll and absenteeism sheets. A general feeling among most establishments was that the Survey Upah questionnaire is too long and difficult to fill in. Frequently firms do not distinguish specific occupations on their pay sheets and enumeration of wages by section is extremely time consuming. Several mentioned this as a major factor in causing delays in reporting, sometimes as long as 6 - 12 months. All firms welcomed the idea of a significantly shorter, easier questionnaire.

- Some firms were worried about the confidentiality of information supplied and one suggested that the enterprise's name not be included in the questionnaire.

- One thing that did surprise us was how statistically minded the firms were. They wanted precise questions and whenever tried to give the precise answers.

II. SPECIAL DATA ISSUES/PROBLEMS

1. Variable Pay Period Reporting

- This was welcomed by most establishments who tend to pay on a weekly or bi-monthly basis and are required to aggregate the data for the monthly pay period report in Survei Upah. Such an effort can be extremely time consuming.

- Initially this method of reporting data was a little confusing but refinements to the questionnaire and instructions significantly reduced uncertainty. Explanation will nevertheless be required on the part of the mantri the first time the questionnaire is filled in by the firm in order to avoid any confusion.

- Overall, this variable pay period time reference is likely to be a major factor in reducing enterprose enumeration time, and is a crucial factor in ensuring rapid reporting required for data published on a quarterly basis.

- The diversity in wage payment systems for production workers excluding mandor was great, even in this small sample: 2 firms paid on a weekly basis, 2 fortnightly, 2 bi-monthly, 2 weekly and monthly and 2 on a monthly basis only. Clearly reporting of monthly earnings only by the firm would leave open the possibility of considerable variation in procedures used by firms to convert weekly or fortnightly data to a monthly basis.

2. The Shuttle System

- This was also welcomed by most firms which quickly understood the benefits of such a system for data checking and reliability. Since success with a shuttle system in the case of an earnings survey might eventually yield considerable benefits to BPS system with other quarterly surveys (for example Survei Triwulanan Industri), it is recommended that it be tested during the proposed pilot on labour earnings.

- The shuttle system is not crucial, however, to the execution of the proposed survey. If it is found not to be practical (or if it might significantly reduce the reliability of the survey), the use of the shuttle system should be reconsidered, modified or dropped. It will be interesting to see what difficulties emerge in the application of a shuttle system in the Indonesian context. The main concerns are that it may tempt respondents or mantris to give false answers, and that paper flow may be difficult to control.

3. Permanent/Casual Workers (karyawan tetap/tidak tetap)

- This distinction (which is made in the Survei Upah Buruh) was confusing to firms, and as a consequence the separation of workers into two categories was sometimes arbitrary. Piece workers (karyawan borongan), a major group in several key industries, were sometimes enumerated as tetap and sometimes as tidak tetap.

- Each firm reported a range of employee statuses for production workers; contract, daily (regular and casual), piece and monthly. The most commonly reported status group were regular daily and piece workers (harian tetap,

borongan). These status groups tend, however, to be specific to certain industries and firm types (as my own dissertation research also found).

- The best way to assist firm enumeration is to request wage data according to payment periods for each of the major status groups. The resulting questionnaire is bulkier, but firms find it easy to identify each group of employees and fill in the relevant column. Reliability is also likely to be higher with such a procedure.

4. Production Workers

- There was some confusion in several firms as to the precise definition of production workers. We started with the BLS (and International Standard) classification including some supervisory staff (mandor, pengawas), mechanics (montir) and production administration staff.

- As the field survey progressed it became increasingly clear that this definition had several shortcomings for speed of reporting and for interpretation

  (i) most mandor/pengawas and montir were paid on a monthly basis in smaller scale (medium) enterprises whereas the rest of production workerws were paid weekly or fortnightly. It would be more time consuming for firms report separate data for a small number of monthly workers.

  (ii) inclusion of mandor, supervisors and montir raises the skill heterogereity within and among firms. Their exclusion, on the other hand, gives a better measure of relatively unskilled or semiskilled labouur earnings which is likely to be subject to short-term labour market developments.

- Our decision was therefore to adopt a definition of production workers which excluded all mandor/pengawas and montir.

5. Worker Characteristics

- Most firms could quite easily estimate the approximate proportion of workers by age, education and experience. Most could not, however, provide exact figures without referring to worker records, which in several cases might double reporting time.

- From the sample enterprises, it was clear that the question assisted interpretation of outlier cases in terms of average earnings. The three firms with high earnings either reported a high proportion of relatively skilled workers with SMA education or above (pharmaceuticals, ship building/repair), or more than ten years of service in the enterprise (spinning and weaving, a former PMA firm).

- This raises the question of whether (in a survey covering a limited range of industries) it is possible to exclude certain categories of highly skilled workers from the definition of production workers in specific industries. Inclusion of these workers has a dramatic affect on average earnings in some cases. In the pharmaceutical firm covered, for example, analysts who are classified as production workers received a monthly wage of Rp. 300 - 400,000 month, probably around 2 - 3 times higher than average wages in pharmaceuticals and 5 - 7 times average earnings of production workers in manufacturing.

6. Work Hours and Days

- Work hours were difficult to report since these data (especially lembur hours) are kept only on individual record cards and are not included in the firm paysheets where

most of the data on wages is supplied. For this reason we dropped all questions on actual hours worked at an early stage (although a question on normal working hours in a week is still asked).

- Data on work-days and days paid were easier to obtain than hours/man-hours but provided several difficulties

  (i) we first asked about paid and unpaid days and man-days but the firms found the question on unpaid days difficult to answer.

  (ii) the final questionnaire (after several revisions) drops any mention of unpaid days and concentrates on a distinction between a) paid days (worked or <u>not</u> worked) at normal rates of pay and b) paid days at overtime rates (Sundays/Holidays). This distintion facilitates calculation of one potentially useful indicator related to intensity/duration of work: <u>average</u> daily earnings <u>at normal rates of pay</u> which could be applied as a <u>proxy</u> for average wage rates.

- There are, nevertheless, two problems with this measure which should be based on calculation of actual total man-days paid (excluding absenteeism)

  (i) total man-days at normal rates of pay can be calculated quickly only if firms have <u>tabulated</u> data on absenteeism. Some firms interviewed could provide this information from tabulations easily, but several only had the data on individual workers cards.

  (ii) since some firms work 5 and others 6 days during a normal working week (although they generally work the same number of normal hours), the above measure will tend to <u>overstate</u> daily (normal) earnings in

those firms working 5 days (which, incidentally, are often higher wage foreign firms).

- Our final decision was to:-

  (i) Include the questions which distinguishes between days paid at normal and overtime rates for enterprise as a whole both for checking purposes and as a possible crude indicator of earnings per normal working day.

  (ii) Exclude the questions on total man-days paid from the questionnaire for both of the reasons noted above.

- Thus the key indicator of fluctuations in earnings derived from this survey would be average weekly earnings, the case for which Alex Korns has argued persuasively in his paper Proposal for a New Survey of Average Weekly Earnings for Production Workers in Indonesian Manufacturing (July 12, 1989).

7. Regular Wages and Wage Components

- It was clear from the presurvey that all firms pay a variety of premi and tunjangan, and several offer benefits in kind (mainly a meal and transport - penjembutan). Despite attempts by the Department of Manpower and labour union to encourage a single wage withour other emoluments (for the purpose of reviewing compliance with minimum wages), it was also clear that firms do this for a very good economic reason. They attempt to influence labour productivity through minimizing turnover and absenteeism, and encouraging work effort (the latter either through production incentives or in-kind payments which influence health and physical wellbeing). One experienced Indonesian personnel manager went as far as to suggest that (unlike in Japan)

Indonesian workers lack commitment to enterprise goals even if they are given generous seniority increments and incentive payments for high performance.

- Since the variation in these payments is great between firms, one major challenge of the earnings survey would be to ensure that all firms report their monetary value in the question on wages. In most cases this was not a problem, since almost all firms included the variety of cash payments offered on a regular basis in their payroll sheets. A problem does arise with payments in kind, however. Transport and meals were provided to wrokers in some firms (and in the case of transport, often to some production employees only). Clear guidelines need to be provided on how to give a monetary value to such payments in the Petunjuk Pengisian. There should be no problem, provided that this is done and the mantri are sensitive to possible understatement owing to exclusion of the monetary value of these items in certain firms.

- The questionnaire has 2 questions which aim at gaining as full a coverage of the various tunjangan, premi etc.

  (i) A general checklist of all items which contribute to the total (regular) wage of production workers - this question will remind firms of all items to be included.

  (ii) A specific line item asking for information on the value of all regular (only weekly, bi-monthly, monthly) wage components outside the basic wage.

- One final point regarding valuation of payments in kind. The pilot should aim to gain an indication of (i) whether these are being reported consistently and (ii) how difficult it is for firms to provide the data. If responses are inconsistent or if it is taking a small number of

firms a long time to calculate the data, then consideration might be made to drop valuation of all in-kind payments from the estimation of wages/earnings. The bias would probably result in a slight understatement of total wage payments in larger, high wage firms. Cross-sectional data analysis would be weakened slightly but time series data is unlikely to affected. Even if these in-kind payments were excluded, however, it may be still be useful for checking purposes to retain a checklist showing which firms provide them.

8. Overtime Payments

- All the firms surveyed had little difficulty in providing aggregate data on overtime payments to production workers. Since data on overtime hours could not be provided easily, this would become the most sensitive indicator of short-term labor market fluuctuations.

- Since overtime earnings will be partly influenced by the number of worked public holidays within any given pay period, some attempt should be made document the influence of this variable on overtime earnings per worker from quarter to quarter. The pilot would provide an opportunity to examine this issue further.

9. Seasonal Variations

- In several of the firms interviewed there were quite substantial seasonal variations in employment (and probably also average earnings) over the past year mainly related to variations in production orders. This was especially true of wearing apparel and automobile assembly but may well be common in a range of industries.

- The question on reasons for quarterly variations in the total pay package will therefor be useful as a checking device for individual firms and possibly also for particular industries.

- There are substantial seasonal variations in employment and wages related to weather (ie. bricks) and the agricultureal cycle in several key industries covered in the Survei Upah (none of these industries were included in our presurvey). Since in some agro-industries such as sugar processing large numbers of low paid contract workers are often hired in peak periods of labor demand, seasonal demand for labour may be inversely related to average earnings. Bearing in mind that there are no data on the intensity of work in the survey, the possibility of fluctuations in average labour earnings providing the wrong signal with regard to labor market developments could be taken care of in one of two ways:-

  (i) publishing separate data on total employment change, or changes in employment of casual piece/contract workers from quarter to quarter. Their wage rates could also be shown separately in certain industries.

  (ii) excluding certain categories of highly seasonal casual contract workers from the definition of production workers in certain specific industries where such variations are large.

The case for excluding some categories of workers in some industries would be strengthened if (as appears to be the case in sugar) that many of these workers are performing agricultural tasks (planting/harvesting) but nevertheless are included in the sugar company's payroll. Again this is an issue to be examined in the pilot.

Note 6 :

Survei Pendapapatan Buruh Sektor Industri: Beberapa Penjelasan atas Struktur Kuesioner dan Pertanyaan yang Dicantumkan dalam Draft Kuesioner

(July 11, 1989)

I. UMUM

1. - Diusahakan sesingkat mungkin agar tidak menjadi beban untuk perusahaan dan dapat dilaporkan dalam waktu maksimum satu minggu.
   - Diharapkan dapat diisi perusaahan dalam waktu paling lama setengah jam.
2. - Disusun agar dapat dilaksanakan dengan sistem shuttle, yaitu pengisian untuk setiap kwartal dicatat pada kuesioner yang sama dan kuesioner yang telah diisi pada kwartal pertama, kedua dsb. diajukan pada perusahaan pada kwartal berikutnya.
   - Sistem shuttle (disesuaikan dengan kondisi Indonesia) diharapkan dapat meningkatkan reliabilitas pengisian, membantu perbaikan angka-angka yang menyimpang di lapangan dan mempercepat proses pelaporan.

II. SUSUNAN KUESIONER

1. Kuesioner disusun ke dalam sembilan bagian pokok:
   A. Identitas Perusahaan
   B. Hari dan Jam Kerja Perusahaan
   C. Ciri Utama Karyawan
   D. Tingkat Upah Terendah dan Tertinggi
   E. Komponen-komponen upah
   F. Jumlah Karyawan Menurut Status dan Sistem Pembayaran
   G. Data Upah (Pendapatan) dan Hari Kerja Aktual
   H. Sebab-Sebab Adanya Variasi Dalam Total Upah
   I. Kesulitan Dalam Pengisian

2. Bagian A - E hanya diisi sekali setiap tahun, sedangkan bagian F - H diisi setiap kwartal pada kolom untuk bulan laporan yang bersangkutan.

3. Data pokok mengenai upah/pendapatan diisi pada bagian G, sedangkan bagian lainnya terutama dimasukkan sebagai keterangan pelengkap untuk menjamin reliabilitas dan melengkapi analisis.

III. KONSEP DAN DEFINISI POKOK

1. Konsep dasar untuk penghasilan dalam kuesioner ini ialah pendapatan buruh (*labor earnings*).[3] Konsep ini mempunyai beberapa kelebihan untuk suatu survei yang hendak dilaksanakan secara berkala, dan hasilnya hendak dilaporkan dan diproses dengan cepat dari suatu sampel yang mencakup berbagai industri dan daerah. Kelebihan ini ialah:

   (i) mudah dilaporkan perusahaan;

   (ii) mencerminkan perubahan dalam tingkat upah dan sekaligus perubahaan dalam intensitas penggunaan tenaga kerja. Hal ini penting untuk negara berkembang seperti Indonesia di mana penyesuaian dalam pasar tenaga kerja sering terjadi dengan perubahan dalam intensitas penggunaan tenaga (jam dan hari bekerja) daripada dalam tingkat upah;

   (iii) menghindari berbagai masalah klasifikasi jenis pekerjaan yang sering timbul dalam survei upah berdasarkan jenis pekerjaan di berbagai industri.

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[3] Sepengetahuan penulis, suatu istilah yang baku untuk labor earnings belum ada dalam Bahasa Indonesia. Ia dapat pula disebut Penerimaan Buruh.

2. Karyawan yang menjadi fokus dalam survei dan kuesioner ialah karyawan produksi di bawah tingkat mandor dan montir. Batasan ini mempunyai kelebihan dari segi prinsip maupun praktis.

   (i) Dari segi prinsip, ia mencakup sebagian besar tenaga yang langsung terlibat proses produksi yang kebanyakan terdiri dari tenaga tidak terampil atau setengah terampil. Ini berarti mencakup tenaga yang relatip sama (homogen) dan tidak mempunyai tingkat keterampilan yang tinggi.

   (ii) Dari segi praktis, banyak perusahaan mencantumkan tenaga produksi di bawah tingkat mandor pada daftar gaji/upah yang sama, dan karyawan ini sering mempunyai status harian atau borongan, sedangkan mandor/sering sering mempunyai status sebagai karyawan bulanan.

3. Batasan Periode Pembayaran. Dasar perhitungan upah/pendapatan ialah pada satu periode pembayaran (seminggu, setiap dua minggu, dua kali sebulan dan sebulan). Periode yang variabel ini diterapkan (ketimbang dilaporkan upah untuk satu bulan penuh) karena nampaknya jauh lebih mudah dilaksanakan oleh perusahaan yang mempunyai periode pembayaran upah kurang dari satu bulan. (Dalam analisa, tinggal dikonversikan pendapatan per hari atau per minggu bekerja). Prosedur ini dapat pula meningkatkan reliabilitas data.

IV. PERTANYAAN-PERTANYAAN SECARA TERPERINCI

Bagian A: Identifikasi Perusahaan -- Kebanyakan pertanyaan pada Bagian A merupakan pertanyaan standar. Tahun mulai produksi (4c) dicantumkan untuk memungkinkan analisa pengaruh lamanya berdiri perusahaan terhadap tingkat upah dan pendapatan. Demikianpun Status Usaha (4f), mengingat bahwa variabel ini sering dikaitkan dengan tingkat upah. Pertanyaan mengenai produksi yang diex-

por (4e) dimasukkan karena fluktuasi dalam kesempaten kerja dan pendapatan buruh mungkin agak besar dalam perusahaan yang mengarahkan produksinya terutama untuk diexspor; mengingat pertumbuhan exspor menafaktur yang begitu pesat dalam dua tahun terakhir, kegiatan ini dapat merupakan leading sector dalam pengaruh terhadap pasaran tenaga kerja.

Bagian B: Hari dan Jam Kerja -- Hari kerja terutama dimasukkan untuk pengecekan terhadap jumlah hari kerja yang dilaporkan pada Bagian F. Jam kerja (di luar lembur) merupakan data dasar untuk perhitungan pendapatan per jam kerja di luar hari dan jam lembur, berdasarkan hari kerja dan upah yang dilaporkan pada Bagian F. Perhitungan ini berguna apabila ingin dilakukan perbandingan tingkat upah dengan sektor lain (misalnya dengan sektor pertanian) ataupun negara lain.

Bagian C: Ciri Karyawan Produksi -- Data ini dicantumkan terutama untuk pengecekan terhadap tingkat pendapatan karyawan produksi yang agaknya menyimpang (outliers - relatip tinggi atau relatip rendah) dalam pelaporan pada Bagian F. Karena perusahaan sering tidak mentabulasikan atau menginventarisasi data ini, pertanyaanya disajikan dalam bentuk perkiraan saja dengan harapan perusahaan dapat melaporkannya tanpa harus banyak pengecekan terhadap data yang hanya terdapat pada karty pegawai/karyawan.

Bagian D: Upah Terrendah dan Tertinggi -- Pertanyaan ini dicantumkan terutama untuk mengetahui range dalam upah guna ceking hasil rata-rata pendapatan buruh. Pertanyaan mengenai upah terendah dimaksudkan untuk memperoleh keterangan mengenai upah dasar setelah distandardisasi untuk pengaruh tingkat ketrampilan dan masa kerja (serta pengalaman kerja). Walaupun perusahaan tidak dapat menjawab pertanyaan ini dengan

mudah (dan, bila membayar di bawah upah minimum, mungkin tidak akan melaporkannya dengan tepat), jawaban pada pertanyaan ini dapat dipakai untuk mencek hasil pelaporan pendapatan rata-rata yang dilaporkan pada Bagian G. Ini merupakan satu-satunya pertanyaan yang hendak memperoleh keterangan mengenai tingkat upah secara langsung dalam kwesioner ini.

Bagian E: Komponen Upah -- Bagian ini terutama dimaksudkan untuk mengingat perusahaan akan komponen-komponen upah yang perlu dimasukkan dalam perhitungan seluruh pendapatan buruh produksi. Hal ini penting karena komponen upah sangat bervariasi dari satu perusahaan ke perusahaan lainnya.

Bagian F: Jumlah Karyawan -- Tabel ini disusun untuk inventarisasi semua sistem yang ada guna pengisian Bagian G, mengingat bahwa berbagai perusahaan dapat mempunyai status karyawan serta periode pembayaran upah yang berbeda-beda untuk karyawan produksi (dan kadangkala beberapa status/sistem dalam satu perusahaan). Tabelnya diperinci menurut setiap bulan laporan karena jumlah karyawan (terutama karyawan harian lepas, kontrak dan borongan) sering berfluktuasi dari bulan ke bulan.

Catatan: Semula dibedakan antara karyawan tetap/tidak tetap tetapi nampaknya definisi mengenai karyawan tetap/tidak tetap berbeda-beda dari satu perusahaan ke perusahaan lainnya.

Bagian G: Hari Kerja, Jumlah Karyawan dan Pendapatan Buruh

- Pertanyaan-pertanyaan pada bagian ini disusun untuk memperoleh dua ukuran pokok mengenai pendapatan karyawan:-

(i) Rata-rata pendapatan buruh per minggu pada hari kerja tanpa lembur, yang merupahan indikator untuk tingkat upah.

(ii) Rata-rata pendapatan buruh per hari/minggu dari pekerjaan lembur, yang dapat merupakan proxy untuk variasi dalam intensitas penggunaan tenaga.

- Dalam bagian ini tidak ditanyakan jam bekerja karena pertanyaan ini makan terlalu banyak waktu untuk diisi, terutama jam lembur yang sering tidak dicantumkan pada daftar gaji/upah dan harus diambil dari kartu karyawan satu per satu. Ini berarti rata-rata pembayaran lembur merupakan ukuran pokok untuk variasi musiman/non-musiman dalam penghasilan buruh.

- Juga tidak dibedakan antara upah/pendapatan buruh wanita dan pria karena informasi tersebut makan banyak waktu untuk diisi oleh perusahaan yang biasanya tidak membedakan karyawan menurut jenis kelamin pada daftar gaji/upah.

- Rata-rata pendapatan buruh per minggu akan merupakan ukuran yang paling dapat diandalkan untuk perhitungan upah dan pendapatan buruh. Perlu diingat bahwa dalam perhitungan pendapatan mingguan untuk karyawan dengan periode pembayaran lebih dari seminggu, pembagi yang paling tepat ialah minggu dan bukan hari bekerja, karena adanya variasi dalam hari kerja biasa antara perusahaan (ada perusahaan yang hanya bekerja 5 hari biasa, ada yang bekerja 6 hari).

ınya Variasi Dalam Upah

terutama dimaksudkan untuk menelusuri
:or yang menyebabkan perbedaan dalam
umlah upah dari satu kwartal ke kwartal
eterangan tersebut dapat mengecek adanya
alam pelaporan jumlah upah karena salah

oner ini tidak ditanyakan jamlah hari-
ı-days) guna menghitung rata-rata
per hari-orang. Hal ini terutama
kenyataan bahwa banyak perusahaan
esulitan dalam melaporkan jumlah hari
ıyar untuk setiap karyawan. Ukuran ter-
ı dapat diperoleh apabila perusahaan
.bulasi data mengenai absensi setiap
Data mengenai absensi buruh biasanya
ı kartu karyawan tetapi tidak ditabulasi
ıerusahaan. Kemungkinan besar pelaporan
.mbat apabila data absensi dekehendaki.

n Pengisian -- Pertanyaan ini dicantum-
ntuk survei pilot agar dapat diketahui
g diperlukan untuk pengisian dan (ii)
lam pengisian yang mempengaruhi
abilitas data. Diharapkan keterangan

administrasi tersendiri tidak dianggap sebagai perusahaan. Sedangkan usaha usaha lainnya yang tidak berbentuk perusahaan, diperlakukan sebagai perusa pengurus dan mempekerjakan orang lain sebagaimana perusahaan mempekerjakan b Bila dua perusahaan atau lebih yang diusahakan oleh satu orang atau badan d dapat dipisahkan satu dari lainnya maka perusahaan perusahaan itu perusahaan(enterprise).

Pert. (1). Tuliskan nama perusahaan sebagaimana yang tercantum pada akta pe

(2). Tuliskan nomor telepon perusahaan.

(3). Tuliskan alamat perusahaan selengkap lengkapnya.

(4a). Tuliskan produk utama perusahaan, yaitu produk yang paling besar keseluruhan output/keluaran.

(4b). Tuliskan jumlah karyawan seluruhnya yang bekerja pada perusahaa Januari tahun ini.

Karyawan perusahaan adalah semua orang yang bekerja untuk perusa **langsung** oleh perusahaan tempat ia bekerja, baik yang aktif b sementara sedang cuti, cuti sakit, ijin perusahaan, sedang meng buruh tetap, lepas, kontrak,maupun borongan.

Termasuk karyawan perusahaan:

1. Manejer
2. Eksekutif dan administrasi
3. Karyawan produksi
4. Karyawan Lainnya

Tidak termasuk karyawan :

Pensiunan, pekerja keluarga yang tidak dibayar, karyawan yang selama periode pembayaran dan tidak dibayar.

Pert. (4c). Tuliskan tahun perusahaan ini mulai berproduksi secara komersial

Pert. (4d). Tuliskan persentase nilai produksi yang diekspor tahun lalu dala 17%, 48%, 77%.

Produk yang diekspor ialah produk yang diketahui oleh pe luar negeri.

Pert. (4e). Tuliskan jumlah plug/shift setiap hari pada bulan Januari tahun

Pert. (4f). Lingkari salah satu status nomor permodalan perusahaan ini.

B. KETERANGAN UMUM PERUSAHAAN.

BAGIAN INI DIISI **HANYA UNTUK KARYAWAN PRODUKSI DIBAWAH TINGKAT MANDOR/MEKA**
JIKA ADA PERUBAHAN TULISKAN PADA BAGIAN F

Karyawan produksi hanya meliputi semua karyawan yang terlibat secara langsu dan berada di bawah tingkat mandor/mekanik.

- assembling
- handling
- receiving
- processing
- fabricating
- pesuruh di bagian produksi

ıksi :

- eksekutif
- trucking
- maintenance
- keuangan
- keamananan
- kafetaria
- instalasi
- pemasaran
- urusan pegawai
- pembelanjaan/penjualan
- kredit

aitan dengan proses produksi.
hari kerja biasa tanpa lembur per minggu.
asa ialah hari hari yang ada kegiatan kerja biasa. Minggu yang dipakai
arena shift/plug, dimasukkan sebagai hari kerja biasa.
jam kerja biasa tanpa jam kerja lembur atau istirahat per minggu.
t upah terendah dalam rupiah dan periode pembayarannya untuk karyawan

terendah ialah upah pokok dan tunjangan tunjangan tetap yang
ara teratur setiap periode pembayaran terendah yang diterima seorang
erusahaan ini.
t upah tertinggi dalam rupiah dan periode pembayarannya untuk karyawan

tase dari ciri ciri utama karyawan produksi pada baris yang sesuai.

ntase karyawan yang telah mempunyai masa kerja kurang dari 2 tahun dan
awan yang telah mempunyai masa kerja lebih dari 10 tahun.
awan ialah jumlah waktu karyawan bekerja terus menerus di perusahaan ini.
V " pada kotak yang sesuai.

RAN.

NYA UNTUK KARYAWAN PRODUKSI DI BAWAH TINGKAT MANDOR/MEKANIK
RIL, JULI, ATAU OKTOBER JIKA ADA PERUBAHAN TULISKAN PADA BAGIAN F

dilakukan secara mingguan, dua mingguan, tengah bulanan, atau bulanan.
g dari satu bulanan, pilihlah **waktu pembayaran yang mencakup tanggal 10**
g bersangkutan. Contoh sistem pembayaran yang dilakukan adalah MINGGUAN:
ober 1989.
ama mencakup hari hari kerja tanggal 2 samapai 7, minggu ke dua mencakup
Sistem pembayaran yang dilaporkan adalah pembayaran minggu ke dua karena
an tersebut.
ada hari Minggu dan bukan hari kerja biasa, maka periode pembayaran yang
yaran untuk tanggal 4 - 9.

Pert. (1d). Jumlah hari kerja lembur pada hari libur/Minggu dalam periode

Pert. (2a). Salin dari jumlah/rekap di bagian C untuk status karyawan yan

Pert. (2b). Cukup jelas.

Pert. (3). **Upah/gaji(berupa uang atau barang)** ialah suatu suatu penerimaa pengusaha kepada karyawan untuk suatu pekerjaan/jasa yang te dinyatakan dalam bentuk uang.

Pertanyaan (3) meliputi semua upah/gaji yang dibayarkan sec periode pembayaran yang tertera dalam perincian (1b), termasuk

Upah/gaji tidak termasuk pembayaran

- Bonus, kecuali dibayar secara reguler setiap periode pembaya
- Tunjangan lebaran/perkawinan/khitanan
- Uang penggantian biaya sakit
- Tunjangan perumahan/ perumahan dinas
- Tunjangan pakaian kerja

Pert. (3a). Tuliskan jumlah upah/gaji pokok sebelum dipotong dengan pemba iuran wajib, dan potongan wajib lainnya seperti potongan karen

Pert. (3b). Tuliskan jumlah upah/gaji lainnya yang dibayarkan secara regul termasuk :

- uang transport
- uang makan
- uang hadir
- tunjangan jabatan

Pert. (3c). Tuliskan nilai upah dalam bentuk natura,**termasuk**pelayanan maka dinilai dalam bentuk uang. Upah natura**tidak termasuk**pakaian ke asrama. Cara mengkonversikannya adalah sebagai berikut:

(1) Makan : Nilai makanan yang dibagikan kepada karyawan deng dikalikan dengan jumlah karyawan produksi yang m pembayaran yang bersangkutan.

(2) Jemputan/Transport karyawan produksi. Rata-rata uang transport per hari per karyawan karyawan produksi yang menerima pelayanan ant pembayaran yang bersangkutan.

Pert. (3d). Tuliskan Upah Lembur yaitu seluruh upah lembur yang dibayarkan Bila sistem pembayaran mingguan, dengan periode pembayaran tan 11 yang jatuh pada hari Minggu digunakan untuk lembur, maka dilaporkan dalam pengeluaran lembur periode tanggal 5 s/d 10

Pert. (3e). Cukup jelas.

Pert. (4). Bila sistem pembayaran kurang dari satu bulan dan ada premi/up bulanan, isikan jumlah pembayaran premi bulanan tersebut pada

'AH.
isi bila total upah pada bagian D pertanyaan 3e bulan laporan sekarang naik
lebihi 20% dibandingkan dengan bulan laporan sebelumnya.

NGISIAN DAFTAR
r pertanyaan dan jenis kesulitan yang dialami dalam pengisian daftar ini.

FTAR

2.	WEARING APPAREL (PMDN)		*	Harian (tetap & lepas) Borongan Harian lepas	Dua mingguan - -	Gaji pokok, m Upah minimum per satuan +
3.	PLASTICS (PMDN)	179	156	Bulanan Harian tetap	Bulanan Mingguan	Gaji pokok, u jabatan
4.	WAVING (PMDN)	750	600	Harian Borongan	Mingguan	Gaji pokok, u (natura) prem Upah minimum harga + trans
5.	SPINNING WEAVING (PMDN-Former PMA)	1500	± 1100	Harian tetap	Bulanan	Gaji pokok, u keluarga (lak uang transpor
6.	PHAMACEUTICALS (PMA)	256	96	Kontrak bulanan Harian	Bulanan	Gaji pokok, m premi shift,
7.	WEARING APPAREL (PMDN)	421	400	Harian tetap Borongan	Tengah bulanan Tengah bulanan	Upah minimum, (bulanan) + t
8.	TYRES (PT)	60	45	Harian	Mingguan	Upah pokok, t makan, tunjan
9.	BATIK (BUMN)	63	22	Kontrak (2 th) Borongan (kontrak)	Bulanan Mingguan	Upah per potc (bulanan) Upah per potc (bulanan)
10.	SHIP CONSTRUCTION/ REPAIR (BUMN)	644	300	Bulanan	Bulanan	Upah pokok, t kehadiran, tu makan siang

*) Estimate firm bankrupt and taken over by new enterprise

'ISTIK SURVEI PENDAPATAN BURUH SEKTOR INDUSTRI

angan statistik dan kerahasiaan data yang dikumpulkan dalam survei ini dijamin oleh Undang-Undang No. 7 tahun 1960 tentang Statistik.

aan :	2. Nomor Telepon :	**DIISI PETUGAS**
		Kode Propinsi ☐☐
	(b) Jml seluruh karyawan pada 10 Januari :	Kode Kabupaten/ Kotamadya ☐☐
(d) Persentasi produkse yg diexpor tahun yg lalu (angka perkiraan saja) :	(e) Jumlah shift sehari :	
2. PMA 3. Negara (BUMN, Persero, dsb.) 4. Lainnya (sebutkan) :		Kode ISIC ☐☐☐☐☐

anpa lembur) : 1. Hari kerja seminggu : ..... 2. Jam kerja seminggu : .....

IKSI DIBAWAH TINGKAT MANDOR/MONTIR

li bawah tingkat mandor (ISILAH PERKIRAAN SAJA, MISALNYA 20%, 40% DSB.)
dari seluruh karyawan **berusia < 25 tahun** .....
dari seluruh karyawan **berpendidikan SLA +** .....
dari seluruh karyawan **telah bekerja < 2 tahun** .....
dari seluruh karyawan **telah bekerja > 10 tahun** .....

D. TINGKAT UPAH TERRENDAH/TERTINGGI YG DIBAYAR PD KARYAWAN PRODUKSI DIBAWAH MANDOR/MONTIR PD BULAN JANUARI (termasuk tunjangan tetap)
1. Tingkat upah terendah yg dibayar pada karyawan produksi yang baru Rp. ..... per .....
2. Tingkat upah tertinggi yg dibayar pada karyawan produksi Rp. ..... per .....
(SEBUTKAN SATUAN WAKTU)

ATUR/TETAP SETIAP WAN PRODUKSI DIBAWAH

r ☐

tasi/target ☐

☐

F. JUMLAH KARYAWAN PRODUKSI DI BAWAH TINGKAT MANDOR MENURUT STATUS KARYAWAN DAN SISTEM PEMBAYARAN MENURUT DAFTAR UPAH YG MENCAKUP TGL.10 PADA BULAN LAPORAN YANG BERSANGKUTAN

		JAN.	APRIL	JULI	OKT.
Harian lepas/kontrak	**Mingguan**				
	2 mingguan				
	2 x sebulan				
	Bulanan				
Borongan	**Mingguan**				
	2 mingguan				
	2 x sebulan				
	Bulanan				

ISI PADA KOLOM 1 - 4 PADA BAGIAN G

d. Jumlah hari bekerja pada hari libur/Minggu dibayar dgn tarip lembur								
2. **JUMLAH KARYAWAN YG MASUK DLM DAFTAR UPAH PADA PERIODE TSB.** a. Karyawan produksi (Rekap. dari F, Pria + Wanita)								
b. Karyawan produksi wanita								
3. **TOTAL UPAH YG DIBAYAR KPD KARYAWAN PRODUKSI PD PERIODE TSB.** a. Upah/gaji pokok **(Rp.000)**								
b. Upah lainnya yg dibayar tetap dlm bentuk rupiah 3) **(Rp.000)**								
c. Nilai upah yg diberi secara teratur natura 4) **(Rp.000)**								
d. Upah lembur **(Rp.000)**								
e. Jumlah (a + b + c + d) **(Rp.000)**								
4. **(KHUSUS UNTUK PERIODE PEMBAYARAN KURANG DARI SATU BULAN) UPAH/PREMI YANG DIBAYAR PADA AKHIR SETIAP BULAN (Rp.000)**								

H. APABILA TOTAL UPAH/GAJI PADA G3.e NAIK ATAU TURUN SECARA MENYOLOK DIBANDING BULAN LAPORAN SEBELUMNYA, APA SEBABNYA
Petunjuk: Bila alasan di bawah ini mempengaruhi variasi tersebut, isikan centing/cek (√).

ALASAN ADA VARIASI DALAM UPAH	Jan.	April	Juli	Sept.
1. Karena variasi dlm produksi musiman/cuaca				
2. Karena variasi dlm produksi non-musiman/order				
3. Banyak hari libur (resmi)				
4. Perusahaan berhenti sementara				
5. Karyawan keluar (sukarela)				
6. Banyak karyawan absen				
7. Upah umum naik				
8. Lainnya				

I. KETERANGAN MENGENA
1. Berapa jam dip
2. Apakah perusah
pada pertanyaa

No. Pertanyaan

(i) .....

(ii) .....

(iii) .....

(iv) .....

1) Isi M=Mingguan; 2M=Dua Mingguan; ½B=2 x sebulan; B=Bulanan.
2) Tidak termasuk hari libur bekerja yg dibayar dg tarip lembur.

4) Tidak termasuk
5) Termasuk nilai

PENJELASAN/PETUNJUK PENGISIAN
KUESIONER PENDAPATAN BURUH

ang Paling besar Sumbangannya Pada Nilai Seluruh
Tahun Tersebut.

wan yang dibayar pada masa pembayaran yang
lan tersebut.

- karyawan sambilan
- karyawan yang sedang cuti dan dibayar

yawan yang sedang mogok selama periode pembayaran
yar.

uksi pada lokasi yang sekarang ini .

tal produksi yang di ekspor tahun yang lalu hanya
an saja (misalnya 25%, 40%, 75% dsb).

Jumlah hari kerja biasa tanpa pembayaran lembur.

rlukan data perkiraan saja kecuali bila
ngan mudah dari daftar karyawan/gaji.

ryawan dibawah tingkat mandor/montir yang dibayar
pada/bulan pencacahan yang bersangkutan.

m proses produksi

ir	- repair	- assembling	- processing
	- packing	- receiving	- handling

g/storage	- pembukuan bagian produksi
agian keuangan	- urusan pegawai
	- shipping
	- maintenance
	- instalasi

nan
ya yang tidak berkaitan dengan proses produksi

Harian tetap - Termasuk karyawan harian tetap yang bekerja pada perusahaan tersebut atau karyawan harian yang sedang menjalankan masa percobaan untuk diangkat menjadi karyawan tetap. Status harian biasa diartikan harian tetap kecuali setiap waktu karyawan dapat dihentikan tanpa pembayaran pesangon bulanan. Bila hal ini berlaku, karyawan tersebut harian lepas.

Sistem Pembayaran Upah : Periode bekerja yg menjadi dasar utk perhitungan gaji/upah karyawan.

BAGIAN C : HARI BEKERJA, JUMLAH KARYAWAN DAN UPAH

Perincian 1a : Yaitu sistem pembayaran mingguan/2 mingguan/tengah bulanan/bulanan.

Perincian 1b : Meliputi setiap hari dr awal periode sampai akhir periode pembayaran termasuk hari Minggu apabila periode tersebut mulai atau berakhir pada hari Minggu.

Bila sistem pembayaran kurang dari dari sebulan tanggal 10 pada bulan pencacahan data menjadi patokan untuk menentukan periode pembayaran.

Contoh : a. Sistem pembayaran mingguan tanggal 10 jatuh pada hari Rabu :
Periode pembayaran ialah Senin tanggal 8 s/d Minggu tanggal 14.

b. Sistem pembayaran mingguan tanggal 10 jatuh pada hari Minggu :
Periode pembayaran ialah Senin tanggal 4 s/d Minggu tanggal 10.

Perincian 1c : Jumlah hari yang dibayar selama periode pembayaran diluar hari libur/Minggu bilamana karyawan bekerja pada hari tersebut.

Jumlah hari yang dibayar diluar hari lembur termasuk :
(i) hari biasa bekerja dan dibayar
(ii) hari tidak bekerja (hari libur perusahaan tutup) tetapi karyawan masih dibayar.

Jumlah hari yang dibayar diluar hari lembur tidak termasuk :
(i) hari libur/Minggu bekerja yang seluruhnya dibayar dengan tarip lembur
(ii) hari perusahaan tutup dan karyawan tidak dibayar

Perincian 2a : Jumlah karyawan dicatat pada BAGIAN E.

Perincian 2b : Jumlah karyawan produksi wanita dibawah tingkat mandor/montir (termasuk karyawan borongan/harian lepas harian tetap dan bulanan).

Perincian 3 : **UPAH/GAJI YANG DIBAYAR** : Meliputi semua upah/gaji yang dibayar secara tetap/reguler pada periode pembayaran.

Upah/gaji tidak termasuk pembayaran :
- Bonus kecuali dibayar secara reguler setiap periode pembayaran
- Tunjangan lebaran/perkawinan/khitanan
- Uang penggantian biaya pengobatan dokter yang dibayar pada orang sakit
- Tunjangan perumahan
- Tunjangan pakaian kerja

Perincian 3a : Isikan jumlah upah/gaji dasar/yang dibayar selama periode pembayaran

nilai transport selama periode pembayaran.

Perincian 3d : Lembur termasuk seluruh upah/gaji lembur yg dibayar selama periode pembayaran.

Perincian 3e : Penjumlahan dari semua komponen upah/gaji yang diisi pada 4a - 4d.

Pengisian pada bagian ini akan sangat menunjang p
pertanyaan yang relatif mudah difahami perusahaan

BIRO PUSAT STATISTIK

PENDAPATAN KARYAWAN SEKTOR INDUSTRI

keterangan statistik dan kerahasiaan data yang dikumpulkan dalam survei ini dijamin oleh Undang-Undang No. 7 tahun 1960 tentang Statistik

.....
.....
.....
.....
.....
.....

4. (c) Tahun mulai produksi : .....
(d) Persentase nilai produksi yang diekspor tahun yang lalu (angka perkiraan saja) : .....
(e) Jumlah shift/plug sehari : .....
(f) Status modal : 1. PMDN 3. Negara (BUMN, Persero, dsb.)
2. PMA 4. Lainnya (sebutkan) .....

DIISI PETUGAS

Kode Propinsi [ ][ ] Kode Kabupaten/Kotamadya [ ][ ]

Kode ISIC [ ][ ][ ][ ][ ]

UARI DAN KARYAWAN PRODUKSI DIBAWAH TINGKAT MANDOR/MEKANIK)

gan tetap (Sebutkan per satuan waktunya)
i baru Rp .....per.....
si Rp .....per.....

AJA, MISALNYA 24%, 47% DSB)
25 tahun ..... %
atas SLTA ..... %
ang dari 2 tahun ..... %
ih dari 10 tahun ..... %

4. KOMPONEN UPAH YANG DIBAYARKAN SECARA TERATUR/TETAP SETIAP MINGGU/DUA MINGGU/TENGAH BULAN/BULAN TERHADAP SEBAGIAN BESAR/SELURUH KARYAWAN PRODUKSI DIBAWAH MANDOR/MEKANIK.
Isikan tanda V pada kotak yang sesuai, bila ada.

DALAM BENTUK UANG

1. Gaji pokok ☐ 2. Tunjangan keluarga ☐ 3. Tunjangan makan ☐ 4. Premi hadir ☐
5. Tunjangan lain ☐ 6. Tunjangan transpor ☐ 7. Premi prestasi/target ☐ 8. Premi lain ☐

DALAM BENTUK NATURA

1. Makan ☐ 2. Angkutan ☐ 3. Natura lainnya ☐

ANIK MENURUT DAFTAR UPAH YANG MENCAKUP TANGGAL 10 PADA BULAN LAPORAN YANG BERSANGKUTAN

d. Jumlah hari kerja lembur pada hari libur/minggu.								
2.JUMLAH KARYAWAN YANG MASUK DALAM DAFTAR GAJI/UPAH a. Karyawan produksi (rekap dari C, pria + wanita)								
b. Karyawan produksi wanita.								
3.JUMLAH UPAH YANG DIBAYAR KEPADA KARYAWAN PRODUKSI PADA PERIODE TERSEBUT PADA PERINCIAN 1.b a. Upah/gaji pokok (Rp 000)								
b. Upah lainnya yang dibayar secara teratur dalam bentuk uang 2) (Rp 000)								
c. Nilai upah yang diberikan secara teratur dalam bentuk natura 3) (Rp 000)								
d. Upah lembur (Rp 000)								
e. Jumlah (a + b + c + d) (Rp 000)								
4.KHUSUS UNTUK SISTEM PEMBAYARAN KURANG DARI SATU BULAN, UPAH/PREMI YANG DIBAYARKAN SEKALI SETIAP BULAN (Rp 000)								

E. KETERANGAN PERUBAHAN UPAH

ISIKAN TANDA V PADA KOLOM & BARIS YANG SESUAI, BILA TOTAL UPAH GAJI PADA D3.e NAIK/TURUN MENCOLOK DIBANDING BULAN LAPORAN SEBELUMNYA, SEBAB KENAIKAN/PENURUNAN TOTAL UPAH/GAJI	JANUARI	APRIL	JULI	OKTOBER
a. Kegiatan produksi musiman/terpengaruh iklim/cuaca	.....	.....	.....	.....
b. Kegiatan produksi terpengaruh order/non musiman	.....	.....	.....	.....
c. Banyak hari libur resmi yang tak bekerja	.....	.....	.....	.....
d. Perusahaan berhenti sementara	.....	.....	.....	.....
e. Karyawan keluar secara sukarela atau ada PHK	.....	.....	.....	.....
f. Karyawan mogok kerja dan tidak dibayar	.....	.....	.....	.....
g. Upah umum atau upah per satuan naik atau turun	.....	.....	.....	.....
h. lainnya(sebutkan).....	.....	.....	.....	.....

F. KETERANGAN KESULITAN PENGISIAN

KESULITAN YANG DIALAMI PERUSAHAAN	
Pertanyaan bagian, nomor.	
a.	.....
b.	.....
c.	.....
d.	.....
e.	.....
f.	.....

Catatan

1). Diisi M = Mingguan 2M = Dua mingguan
1/2 B = Tengah bulana B = Bulanan

2). Tidak termasuk THR, Bonus / insentif tahunan / kwartalan

3). Termasuk nilai transpor dan makan yang diberikan tiap hari

G. LEGALISASI PENGISIAN DAFTAR.

Daftar ini diterima oleh perusahaan pada tanggal ..... diisi selama ..... jam
Dikembalikan kepada petugas tgl .....

Pejabat perusahaan pemberi keterangan

Bubuhi cap perusahaan,jabatan.....

Notes on Wage Surveys

Statistical Paper # 39

by
Chris Manning
April 27 - May 13, 1992

(DSP # 149)

Table of Contents

List of Tables

Note 1 :

Introduction

I. Objectives of the Consultancy

A. Survei Upah Buruh (New Employees Wages Survey)

1. Briefly restate the rationale and objectives of the survey in the context of the framework worked out during my earlier consultancy in June 1989.

2. Comment on the results of the pilot surveys.

3. Review the data collection process during the first round in 1992, and provide some recommendations specifically with regard to improvements in the speed of reporting and processing of the data.

4. Make some suggestions regarding the tabulation and presentation of results.

B. Surveys of Wages Structure

1. Briefly state the various objectives of wage surveys and principal users (refer to Martin Godfrey's report for ILO/DEPNAKER).

2. Summarize some of the principal needs of key users in Indonesia (BAPPENAS, DEPNAKER).

3. Indicate the feasibility of meeting the above-mentioned demands in terms of:-
   a. The capacity of specific kinds of wage surveys to answer certain policy related questions.
   b. Administrative and other possible constraints within BPS to meeting the user's needs.

4. Outline the possible surveys which might be undertaken by BPS to collect data to meet the needs of key users. These would be reviewed within the general framework of current BPS data collection efforts on manpower, wage and income/basic needs issues (SAKERNAS, construction industry cost data [including wages], Index of Worker Living Standards).

II. Major Findings

A. Survei Upah Buruh

1. Major problems with the survey have been delays in the reporting of data and data quality.

2. The speed of data reporting can be improved substantially provided that BPS takes steps immediately to make staff at the lower levels of administration aware of the importance of time deadlines, and provides more information on the objectives and content of the survey. To facilitate speed of reporting, special emphasis needs to be given to the work patterns and productivity of mantri statistik. Supplementary efforts would also involve letters of explanation/leaflets sent to firms explaining the importance of rapid reporting of data and follow-up communication to indicate BPS appreciation of firm participation in the survey.

3. Data quality can be substantially improved through clearer explanations added to the questionnaire and training given to key officers at the regional level. Since the questionnaires for 1992 have already been printed, a supplementary sheet of clarification of several problems associated with data reporting should be sent to regional offices immediately. Simpler validation tables should also be sent to regional offices to help reduce response errors and speed up processing time.

4. Tabulation for the survey in 1992 should proceed on a preliminary basis and produce a short report on the quarterly findings of the survey. Tabulation should proceed according to the planned schedule and feed-back should be obtained from key persons on the findings of the survey.

B. Wage Structure

1. It is recommended that BPS plan two specific kinds of annual survey of wage structure: a survey of unskilled/semi-skilled wages in service industries and a survey of wages of occupational wage rates for technical, professional and managerial personnel in large scale establishments.

2. These surveys should be pre-surveyed and piloted in 1992-1993 with the objective of beginning surveys of wage structure in 1994. Cooperation with specialist research organizations in the area of employment and wages could assist planning of these surveys.

III. Notes Produced During The Consultancy

The following notes were produced during the consultancy and are enclosed with this overall report:

1. A general note on the objectives, pilot studies and first round execution of the Survei Upah Buruh.

2. A note on the findings of field trips conducted during the consultancy.

3. A note on tabulation of the survey results.

4. A note on priorities for surveys of wage structure.

Note 2 :

The New (Production) Employees Wage Survey (Survei Upah Buruh)

In this note I will summarize the main objectives and background to the new Survei Upah Buruh and some of the problems which have been encountered in the first round of the new survey in 1992. The main aims of the note are to update documentation on the new survey, including the major findings of several pilot studies, and to highlight several difficulties in its execution and how these might be overcome. Several of the main recommendations are based on the findings of field trips conducted during the consultancy which are discussed in a separate note.

I. Rationale and Objectives

The survey grew out of a dissatisfaction from key users and within BPS with the industry/occupation based wage survey (with the same name) which was conducted in Indonesia from 1979/80-1991. [1] A new questionnaire was designed in 1989, piloted in 1990/1991 and sent out on a national scale for the first round of the 1992 survey in February. The approach, coverage and concepts used in the new survey (henceforth referred to as SUB - Survei Upah Buruh) should be interpreted in the context of the problems associated with its predecessor. Primarily, these relate to the considerable time lapse between data collection and publication of the survey results, and the quality of the data. A brief description of these problems are included in Appendix I.

The main objectives of the new survey were set out in my report **Design for a Quick Quarterly Survey of Manufacturing Earnings** (DSP, Statistical Paper 23, 1989). These were that the SUBB should provide a robust measure of wage change which would be of use to policy makers and planners, with specific reference to the wages of unskilled and semi-skilled workers. To achieve this the SUB should aim to provide accurate data to users on a quarterly basis with **a lag of no greater than three months between the time of data collection and publication.**

The main characteristics of the proposed SUB were as follows:

[1] The survey was first undertaken by the Department of Manpower and then taken over by the Central Bureau of Statistics in 1981.

1. The questionnaire would be substantially shortened and simplified to include data on **the earnings of production workers** only.

2. Data collection would be executed on a **shuttle basis**.

3. The **sample of enterprises would be much smaller** and more focussed than for the old survey. It was proposed that it be limited to key manufacturing industries in the six provinces in Indonesia - Jakarta, West, Central and East Java, North Sumatra and South Sulawesi - which account for 85% of all employment in manufacturing. It was recommended that the total sample size be limited to approximately 500 establishments.

Visits to a small number of establishments in the Jakarta region indicated that the most easily reported data on wages was **average earnings of production workers**. To minimize both the firm's reporting time and potential 'noise' which this measure of wages might contain, it was recommended that:

(i) the data be reported according to the **pay period** - weekly, 2-weekly and monthly - used in personnel records.

(ii) a basic distinction be made between wages paid at **normal rates** of pay and wages paid at **overtime rates**. Overtime earnings fluctuate more than wages paid at normal rates and are a good indicator of short term fluctuations in labour demand.

(iii) given variations in normal days worked each week between firms, and the difficulty of collecting data on actual hours and days worked, **average weekly earnings** would be the most robust measure of wage levels and change. Although the **absolute level** weekly earnings is not widely used in Indonesia as a measure of wages, the **index** of weekly earnings would be of considerable value to users.

(iv) collection of data on the number of days in which workers were paid at normal rates during the pay period would provide a proximate measure of daily earnings of production workers. It would only be a proximate measure because absenteeism rates vary between firms and are particularly high in certain traditional industries such as tobacco and kretek cigarettes.

II. The Essence of the Trade-Off Between the Old and the New Survei Upah Buruh

Essentially, it was proposed that the old survey which collected a considerable amount of data of questionable quality and covering a large, national sample, be substituted with a new SUB, which emphasized data accuracy and speed of reporting and processing. In order to achieve **rapid reporting of high quality data**, SUB has sacrificed considerable detail on labour earnings, most importantly a breakdown of earnings by **occupation and gender** of production workers.

The main justification for this decision was that the new survey would provide an indicator of non-agricultural labour market trends which would be published within a time frame which was of value to policy makers and private enterprise for the monitoring of labour market trends. It was proposed, further, that the index of labour earnings produced by the survey should be published in the Indicator Ekonomi and would represent Indonesia's leading (and first) indicator of non-agricultural wage change.

It was argued that more detailed wage data on occupation should be collected separately in specially designed surveys which would be conducted in accordance with user needs. Once the SUB was up and running, BPS should turn attention to the demand for, scope and methodology of such surveys.

III. The Pilot Surveys of SUB

The pilot test of SUB was conducted in three stages: first, through a one-short survey in early 1990 in West Java, Central Java and North Sumatra; second, through a closely monitored survey of 30 establishments in Bandung in four consecutive months in 1990, and third, through a survey in 1991 of 79 and 105 firms in manufacturing in Jakarta and East Java also covering 4 rounds of data collection over an 8 month period. A distinctive characteristic of the presurveys was that a **bonus** was provided to the mantri statistik for return of completed questionnaires to the kabupaten office within 4 days. [2] In each of the pilot studies, regional level BPS staff and selected mantri statistik were given coaching on the new questionnaire. The major lessons derived from the pilot surveys were as follows [3]:

[2] It appears that the payment of bonuses was only partially executed in the second phase of the pilot study.

[3] These were summarized in two reports prepared by the Manpower Section of BPS in 1991 and 1992.

A. Speed of reporting.

1. With the exception of the East Java sample, the pilot surveys indicated that it was possible for the mantri to return the majority of completed questionnaires to the regional office within the required 4 days. In comparison to reporting time in the SUBL and other BPS enterprise surveys, **this represents a major step forward.** In the case of DKI Jakarta, close to 70% of all questionnaires were returned within 4 days, although it was of concern that nearly 20% of questionnaires took 7 days or more to complete. In the case of East Java the results were much less favourable: only one-third of all questionnaires were returned within 4 days and only slightly over half within one week. The very much greater delay in East Java than in previous pilots seems to have been connected with the addition of a question for man-hours (which was not in the first pilot and is not in the new survey). However, it is unclear why DKI did not experience a similar delay.

2. The **major factor** contributing to more rapid completion of the questionnaires was the **greatly simplified and shorter questionnaire,** and the organization of wage data according to pay periods used in firm's records. In the SUBL the questionnaires had to be left with the firm to be collected at a later date by the mantri, primarily because of amount of data which the firm was required to provide. In the pilot of SUB, it was found that data could be collected through **direct interviews** with the personnel manager in a significant number of cases, although the mantri still found that they needed to leave questionnaires in some firms, especially larger establishments. Direct interviews were **much preferred** by the mantri as a method of data collection because they reduced collection costs and ensured quicker payment of data collection allowances which are set according to the number of questionnaires completed.

   Firms reported that the time required to fill in questionnaires was in most cases 1-2 hours, and in the closely monitored Bandung study this time was reduced significantly from a mode of 2 hours in the first round to 1 hour in the fourth round.

   In general, firms responded very positively to the shorter questionnaire. Although there were a number of difficult cases which needed special attention, this suggests that **the major constraints to rapid reporting of data have been overcome at the firm level.**

Provided that the organization of the SUBB within the Statistics Bureau can be adapted to rapid reporting of data, the pilot suggests that targets of publishing the results of the survey within three months of data collection are achievable.

3. Based on subsequent interviews with the staff in North Jakarta statistics office, a number of **specific factors** were suggested as contributing to the **greatly improved speed of reporting**. These were the prior training of staff, the inclusion of relatively more accessible firms in the pilot, more intensive supervision of the pilot by the head of the kabupaten office and an absence of special circumstances such as major holiday periods (lebaran) coinciding with the schedule of data collection. The provision of bonuses for return of the questionnaires on time also probably contributed to more rapid reporting of data, although this factor was not considered decisive.

4. One factor which contributed to delays in reporting in the 1991 East Java Pilot was the revision of the question on number of paid days in the pay period. Firms were asked to report **the actual number of person-days worked** in the pay period, taking account of absenteeism. Since records of these data are usually contained in separate firm records, the requirement to include such data increased reporting time.

5. The **shuttle system of reporting proved difficult to administer** mainly because firms and statistical offices did not have sufficiently organized filing systems for saving the questionnaires completed in previous quarters.

B. Technical Problems Associated with the Questionnaire.

Three main problems were reported associated with the questionnaire and concepts/definitions included in it.

1. Questions on [a] the percentage of production exported and [b] the main product of the firm, could not always be answered by the personnel department. In some cases, this contributed to delays in reporting.

2. The category of production workers below the level of mandor (foreman) and excluding mekanik/montir, did not always fit with the recording systems adopted by firms. There was also some confusion as to whether to include warehouse/storage personnel as production workers.

3. **Estimation of days worked (or paid) seems to remain a major problem**, if the survey is to be used to measure daily earnings. The Bandung pilot adopted a definition of days worked rather than paid days as recommended in the initial design of the questionnaire. As noted above, the definition was changed to paid person-days in the third pilot. As will be suggested below, much of the 'noise' in the reported results on daily earnings in the pilots can be directly attributed to this problem.

C. Results of the Pilot

The results were tabulated and presented in the reports on each of the pilot surveys. Although the results are broadly much more consistent than for the SUBL, there are clearly some major problems which need to be addressed.

1. Changes in wages over the four rounds were broadly as expected, although in some sectors both earnings with and without overtime payments fell. While this is quite likely to happen in the case of earnings **with overtime**, it is unusual for earnings **without overtime**. In some cases, the fall was explained by the addition of new personnel who were paid at a lower rate than the average of all production workers.

   However, in the case of daily rates, a second explanation almost certainly relates to problems of calculating daily earnings from the questionnaire. This was especially true for employees paid on a **monthly** basis. Their wage incomes automatically fluctuated according to the number of days paid or worked, if wages were calculated on a daily basis. This is because (unless a pay rise occurred in the intervening period) **monthly earnings are fixed irrespective of the number of days worked**. In the calculation of daily earnings, the numerator (monthly wages) remains the same from month to month, whereas the denominator (total person-days) is likely to change according to the number of working days in the month (which are likely to be related to the length of the month).

   Overtime payments fluctuated much more than normal wages from month to month, depending on the amount of overtime days offered to workers. These fluctuations were very much larger in months with many holidays, or preceding major holiday periods such a lebaran when more overtime is often offered. **These fluctuations are to be expected.** It is important to bear in mind that because of these fluctuations, **total labour earnings can fall for one or more months** (and for an

extended period in a recession), **while normal earnings may continue to increase.** The value of including overtime payment is that these provide a calculation of earnings which approximate actual labour incomes in a particular pay period.

2. A second major explanation for large wage differentials between industries and sharp changes over time is sampling error, especially given that wage levels are always likely to exhibit large variations. This was particularly true of the first pilot (total of 30 firms), but also true of the second for the data broken down by industry within manufacturing.

3. Finally it is worth commenting on the fact that weekly earnings for workers paid monthly were often a multiple of 2 or 3 of those for workers paid weekly. This might be true in reality since it is generally the more established firms which pay on a monthly basis and these tend to pay higher wages to their employees. [4]]

IV. First Round Of The SUB (January-March 1992)

The first round of the new survey began in 1992 with distribution of a sightly revised questionnaire based on the pilot studies. Data were not collected using a shuttle system. They were to be collected for the first pay period in March (or for the month of March for monthly employees) with the hope that questionnaires would be completed in 4 days and returned to BPS for data editing and processing no later than the end of April 1992. Both the mantri and the enterprises appreciated the much shorter and less complicated questionnaire. Nevertheless several specific problems have surfaced. These relate to the sample size and regional coverage of the survey, the speed of reporting and data quality. [5]]

A. Sampling

It was decided by BPS that the proposed smaller sample of 500 establishments was too small, and that the survey should retain its national coverage. To achieve this, BPS selected a total sample of 2000 establishments, including 1670 in manufacturing (10% of all large and 10% of all medium establishments in each 3

[4]This is partly because of higher starting rates. But it is also partly because there tends to be less turnover in such firms and longer serving employees receive increases based on years of service.

[5]The latter two issues are discussed in my report on the execution of the first round of the SUB in Jakarta and Bandung based on field trips to regional offices and establishments in each of these areas.

3 digit industry group), 295 starred (berbintang) hotels and all mining establishments. [6]] In cases where there was only one three digit establishment in a particular province, this establishment was automatically included in the sample.

This much larger and regionally diverse sample than originally proposed has important implications for the speed of reporting, data quality and, related to the above, the format of the publication of the survey results.

1. BPS is likely to face much greater problems in achieving one of the key objectives of the survey, namely dramatically improving the speed of reporting and processing data. Narrower regional coverage would have enabled BPS (and the staff of the Manpower Section in particular) to concentrate their efforts on improving data reporting mechanisms in several key provinces.

2. A second consequence, which will impact on the speed of data processing in particular, is that BPS is likely also to encounter much greater problems of variable data quality and data editing. Efforts to ensure that the new questions and concepts are understood, and that consistency checking is undertaken correctly at the provincial and kabupaten level, are much more difficult on a national scale.

3. Sampling error, as in the old Survei Upah Buruh, will be much greater in provinces with a small number of establishments in all manufacturing or in particular industries. Non-sampling error is also likely to influence the average wages reported for particular provinces where absolute number of enterprises covered in the sample is small. **Careful thought will need to be given to the format of the published results in order that large and implausible variations in wages between industries and regions, related to both sampling and non-sampling errors, do not emerge in the final publication of the survey data.** This was one of the main problems which reduced user confidence in the reliability of data published in the old Survei Upah Buruh. In order to convince users of the usefulness of the new survey, it is of utmost importance that similar

[6]The 10% of large and medium establishments in manufacturing were selected on a cut-off bases - establishments were ranked according to size in each group, and the 10% largest establishments within each of the BPS large and medium categories were selected for each 3 digit industry group. Thus the minimum number of employees in large establishments in some industries was around 1000 and in medium establishments around 60-70.

problems do not emerge in the publication of the findings from the new survey. [7]]

B. Speed of Data Collection

By the end of April 1992 no questionnaires had been returned to BPS. By May 19, only about 25% had been returned. It became clear that special steps would be need to be taken in order to achieve publication within the given time frame of a maximum of one quarter from the end March. The main conclusions were that:

1. the importance of the speed of reporting for the success of SUB was not sufficiently appreciated by regional offices, mantri statitistik or enterprises.

2. the organization of data collection within the statistics bureau needed to tailored to the new system of rapid reporting, in particular with regard to the work loads an motivation of the mantri statistik.

C. Data Quality.

Although the questionnaire has been improved based on experience of the pilot surveys, it seems likely that the quality of data produced from the first round of the SUB is likely to be quite low and will require substantial editing by BPS. One major factor contributing to this was the failure to provide training on the content of the new questionnaire to regional staff and the mantri statistik. A second was several technical problems related to the layout of the questionnaire, and definitions and instructions contained in the questionnaire. Most of these problems could be acted on in order to improve data quality in the second round. Careful editing procedures will also need to be instituted to solve data quality problems arising in the first round.

[7]Specific suggestions for data tabulation and publication are included in a separate note.

Note 3 :

Report on Field Trips in Jakarta and Bandung

During the consultancy, I made trips together with the staff of the Bagian Tenaga Kerja and Dr. Alex Korns to the Provincial Statistical Offices in Jakarta and Bandung, the Walikota Office in North Jakarta and the Kabupaten/Kotamadya Office in Bandung. At all the offices we had discussions with the staff responsible for administering the first round of the new Survei Upah (SUBB) for 1992 and also met with quite a large number of Mantri Statistik responsible for the data collection. In addition, we visited one firm in Jakarta and five in Bandung to gain information on problems which the firms faced in filling out the new questionnaire and factors contributing to delays in data collection.

The **major aim** of the visits was to examine reasons for the **delays** in return of questionnaires from the first round of SUBB 1992. As we have argued elsewhere, a critical element in the success of the greatly simplified questionnaire is **speed of reporting** so that the data can be published on a quarterly basis. To be of value as an instrument for monitoring wage trends, the data must be able to be published with a **maximum lag of 3 months** from the end of the month of data collection.

Secondary objectives were to check on quality of data reported and to obtain inputs for design of surveys on wage structure.

Major Findings and Issues

1. The two major problems associated with the SUBB are the **delays in administration of the survey and reporting** and the **quality of data.**

2. **The execution of the SUBB under the planned new time schedule is achievable** provided that close attention is given to a range of problems associated with the preparation for and execution of the survey.

3. All firms that were interviewed welcomed the shorter questionnaire and, with some minor exceptions, were able and willing to provide the data required quickly.

4. Although some efforts can be made to increase the speed of reporting by firms, the major changes required to reduce delays in reporting are in **the**

organization of and attitude to data collection within the statistics offices at provincial and kabupaten levels and among the mantri statistik.

5. The efforts required to deliver data on time will **not involve a large allocation of additional resources** (staff time and money) but it will require a **change in the approach to the importance of time** at all levels of survey administration and in data collection.

6. The **quality of data can be improved substantially** provided that the regional office staff and mantri are trained on the basic questions and concepts, clearer explanation is provided in the questionnaire and the format of the questionnaire is improved.

7. Steps to substantially improve the speed of reporting and data quality should be taken in several stages:

   (i) **Immediate action** prior to the return of the questionnaires to BPS for round 1 would involve:

   - distribution of a letter to all statistical offices emphasizing the importance of time in this particular survey and **why time is important** in for success of SUBB
   - similar visits by the Bagian Tenaga Kerja staff to several other major areas of data collection
   - circulation of a list of supplementary explanations on filling in the questionnaire to all provincial offices
   - preparation of a more simple table for data validation and checking

   (ii) **Action prior to the execution of round 2** (June-July), would involve:

   - a program of **training** on the new survey for provincial and kabupaten staff, and the mantri statistik.
   - circulation to all sample firms of a letter explaining the importance of quick reporting for success of the survey, and stamping of all questionnaires with a clearly marked target date for completion (ideally to be applied by the provincial offices)

   (iii) A **third stage** would be fine-tuning of the questionnaire for circulation in 1993, improving format and instructions to help reduce data reporting errors.

8. An important activity which might be set in motion immediately, but take some time to resolve and implement, would be **examination of major factors contributing to the speed of return of the questionnaires by the mantri**. This would involve investigation of:

(i) procedures for evaluation of the mantri performance, especially with respect to the speed of submitting completed questionnaires

(ii) **relative levels of payment** for enterprise and household questionnaires

(iii) The possibility of providing **bonuses** for mantri for completion of questionnaires within a given time schedule.

Note 4 :

Specific Issues and Areas for Improvement

I. Administration and Organization of the Survey.

1. In order to achieve the goal of quarterly reporting of data, the time schedule for completion of **each stage** of execution of the survey needs to be clear-ly specified for each round. This includes specification of the **latest dates** for:

   (i) delivery of questionnaire to the provincial and kabupaten offices
   (ii) dropping of questionnaires to the sample firms
   (iii) collection of the completed questionnaires
   (iv) completion of editing at the provincial level
   (v) return of the questionnaires to BPS
   (vi) completion of editing, data entry and processing at BPS
   (vii) publication of results of the survey

   In order to improve the turnover time, it would be extremely useful if each province kept **a record of the proportion of questionnaires submitted and edited** within certain time periods (for example, < 1 week, 1-<2weeks, etc.). This is important in the case of SUBB, because editing and data entry should **not have to wait until all completed questionnaires are submitted.** Thus, for example, provincial offices could edit the questionnaires as they come in and sent them to BPS once a certain proportion had been returned (for example the first 25% completed, the next 25% completed and the next 25% completed).

2. Failure initially to provide sample lists to provincial offices which were broken down by kabupaten (inappropriate sequencing according to firm KIPs only) contributed to delays in determination of the final sample for the survey.

3. The provincial offices were concerned with the issue of **sample replacement** for a small number of firms in the sample which either had changed their status, or were unwilling to provide data in the time frame required (for example, one firm stated that it was unwilling to report any data on a quarterly basis). Both North Jakarta and Bandung offices requested that the provincial office be allowed to determine replacements. Provided that clear guidelines are established for replacement of firms in the original sample (industry and

size category), granting of the provincial offices the right to determine replacements for a given proportion of the total sample (for example, up to a maximum of 5% of cases per year) would help to reduce delays.

4. In the first round 1992, **blank questionnaires were received quite late** by the kabupaten offices. In kabupten Bandung, the questionnaires requiring data for March were received by the kabupaten office on April 24. The questionnaires were delivered to the firms in late April or early May. In both Jakarta and Bandung, the provincial offices felt that a realistic, earliest date for return of all (or most) questionnaires was the end of May. Given potential editing problems for this first round (see below), it is most unlikely that the data processing can be completed according to schedule.

In order to meet the tight time schedule, questionnaires should be delivered to the firms **in the first week of the month following the pay period on which data is to be collected.** In the case of the first round 1992, all questionnaires should have been delivered **to firms** by April 7. The causes of a delay of 3 weeks to 1 month should be carefully examined, including whether the mailing of the questionnaires from BPS on February 10 1992 contributed to these delays.

5. It was our general impression that the importance of meeting tight schedules for delivery of questionnaires and data collection in the new survey was not sufficiently appreciated at **all levels of administration** of the survey. It also appears that the critical importance of time in the new survey was even **less well understood at lower levels of the administration,** at the kabupaten offices and among the mantri. **Kesadaran akan pentingnya waktu untuk survei ini perlu ditingkatkan pada semua tingkat pelaksanaan, dan terutama pada tingkat mantri, agar data dapat diterbitkan secara kwartalan.**

II. Information and Training

No special training was provided for local level staff or mantri on the administration of the SUBB or the material contained in the new questionnaire. This appears to have been a major factor contributing to failure to appreciate the importance of meeting time schedules. It will almost certainly contribute to low quality of data reported, and mean that considerable time will be required for editing of the questionnaires both in the provincial offices and at BPS.

To minimize delays and achieve a minimal required level of data quality, both **information on the importance of meeting target dates and training of staff is urgently required** for the second round of data collection (for the pay period of June).

As is well known, the attitude and actions of the mantri statistik have a major influence on the speed of reporting data. Although they were probably inhibited by the presence of more senior level staff at our meetings, the mantri suggested that a number of factors could help them deliver the completed questionnaires more quickly.

A. Factors Specific to the SUBB.

Several of these have already been dealt with above. The most important were the **lack of knowledge of the importance of the speed of reporting in this survey** compared with other surveys, and the **absence of any prior training** which meant that the mantri were unable to give specific instructions and help to firms in filling in the questionnaire.

1. Bonuses. We tried to find out why the speed of reporting was so much quicker in the pilot than in the first round of SUBB, in particular whether the **bonus** offered in the pilot affected the mantri's behaviour.

   - In general, **the mantris played down the importance of the bonus** in the pilot compared with the first round of SUBB. They explained that the main causes for delays in SUBB were related to specific factors associated with the firm's response: change in personnel entrusted with filling in the questionnaire, different locations of factories and head offices and delays in reporting because firm directors or managers were require to legalize the documents. We were **not totally convinced** by the mantri response regarding bonuses, especially as they were generally unwilling to state (especially in the presence of more senior statistics office staff) that the size of financial awards affected their work effort.

   - It was generally argued by the Statistics Office staff that **payment of a bonus just for SUBB was impractical** administratively. It would lead to demands for bonuses for other surveys and adversely affect the work atmosphere (suasana kerja) among mantris.

Our general conclusion was that introduction of a bonus based on the speed of reporting for SUBB was not practical in the short term. It might however still be considered as an option if all other efforts to raise the speed of reporting still did not meet the BPS target.

2. The statistics office staff reported that **four** factors helped the quicker response in the pilots of SUBB: the provision of training, closer administration of the pilot by kabupaten and provincial staff, the willingness of firms to fill in data for a pilot because it was explained that the aim was to help reduce their reporting burden, and the selection of an 'easier' sample in the pilot.

B. General Factors Affecting the Mantri's Behaviour.

The most important among these was their general work load, and the timing of the first round of SUBB which coincided with the first round of the quarterly industry survey and the annual industry survey. The heavy work load was especially emphasized by the mantris and the office of statistics staff in North Jakarta.

The mantris also reported that they had much greater incentive to fill in household than firm questionnaires. In Bandung, the reward for completing household questionnaires (SAKERNAS, SUSENAS) was Rp. 2500 compared with Rp. 3000 for the SUBB. The mantris reported that they could complete up to **four household surveys in one day**. This contrasted with a delay of up to a month or more, even with several visits, for the SUBB.

Our general conclusion here was that:

1. Although the mantri (quite naturally) stressed that problems associated with firm response mainly contributed to delays in filling in questionnaires, the provision of training and greater emphasis on the importance of time would have a significant influence on the speed of reporting by mantris. This is especially true because most of the problems associated with slow firm response are anyway beyond the control of outside agencies.

2. Clearer guidelines might nevertheless be given either from BPS or the provincial offices as to how to deal with difficult cases.

3. It may be necessary for BPS **to review the reward structure** for different kinds of questionnaires (especially **household versus enterprise**) and the **burden of reporting**, especially in provinces and

kabupaten where the number of establishments has grown rapidly in recent years. This would however probably take some time to conduct and **cannot be relied on to improve the speed of reporting in the SUBB in 1992**, especially if it was found necessary to increase the number of mantris and other staff in certain regions.

4. Bonuses might also be considered but as a last option.

C. Improving the Speed of Firm Response

Although it is unlikely to be possible to affect the speed of firm response in some cases (for example, change of personnel, a general negative attitude to data collection on the part of management), some **systematic efforts might be considered to speed up the firm response rate in general.** This might include:

1. Most firms also did not have any appreciation of the importance of completing the SUBB questionnaires quickly. This was partly because the requirement that data be provided within 4 days was not highlighted in the questionnaire. Two innovations could be introduced to raise the firm awareness of the importance rapid reporting of data in the SUBB:

   - required completion dates could be **clearly stamped on the questionnaire** and the mantri be requested to draw the firm's attention to the importance of completion by these dates.

   - **a general brochure be sent out to firms** with the questionnaire requestion their support and explaining why the data are required much more quickly than in the past. Ideally this brochure should be signed by the Head of BPS and contain the following points:-

     a) the questionnaire has been substantially simplified in order to facilitate firms in filling out questionnaires quickly and with the maximum amount of accuracy.

     b) if it is possible, the firm is requested to provide the data immediately to the mantri statistik through an interview. If direct interview is not possible (this is most likely in the larger firms), the firm be requested to adhere to the target dates of data collection and to inform the mantri when the data could be collected.

c) the aim of the survey is to provide quarterly data to the government and private enterprise which can be of value for manpower and wage planning and policy. This can only be achieved if the data are published quickly, as up-to-date information is essential for interpreting wage trends.

Our general impression was that except for firms which were willing to provide data through direct interviews (the mantri statistik in Jakarta felt that this was possible in many smaller firms), 4 days for filling in the questionnaire was an unrealistic target for many firms. **A more realistic target is one week**,and this should be specified as the second week of the month following the month containing the pay period for which data are required. For example for the second round, all questionnaires should be stamped clearly **TO BE COMPLETED BY JULY 15 1992.** Or alternatively, provincial offices would stamp the required date for return of the questionnaires, to ensure that this is consistent with the date that the questionnaires are received by the kabupaten offices.

It seems, moreover, that in most firms (at least those who pay on a monthly basis) the second week of the month is an appropriate time to request data. The administration of pay for the previous month has been completed and they are not yet busy with preparing pay sheets for the next month. But some firms may not be able to guarantee filling in the questionnaire in the second week. In this case it would greatly help if the mantri statistik found out **what dates of the month were most convenient for these firms to report data, and this information was recorded at the kabupaten level** so that a regular pattern of data collection could be established for future rounds.

2. It was also suggested by provincial and kabupaten officers that feedback to the sample firms could also help the speed of reporting. This might include:

- a **letter of appreciation** sent to all firms who completed the questionnaire within the required time frame specified (one week).

- provision of **one summary sheet (one page) of the survey results** for their province to all firms which requested it.

- **award of a special certificate,** associated with some publicity to

a small number of firms each year which reported data quickly and accurately (maybe announcement by the head of BPS of 'perusahaan teladan' in each province). This could of course cover reporting on all enterprise surveys, but should emphasize the speed of response as one key criteria.

D. Data Quality and Fine Tuning of the Questionnaire

The pilots identified several problems associated with the questionnaire and led to considerable improvements in format, content and specification of certain questions (see my general report on the Wages Survey and the Pilot for details). Nevertheless our brief visits to several firms, indicated that there are still several problems associated with the questionnaire. Some of these should be dealt with **through training of personnel and circulation of a list of major potential problems** (and their solution) encountered in the first round to all provincial and kabupaten offices (and perhaps also to each establishment in the survey) before the second round of the SUBB begins in June-July. The format of questionnaire and instructions should be revised at least for the 1993 rounds of the SUBB.

Examples of major problems encountered in the filling in of questionnaires, and improvements which might be made to the questionnaire are as follows:

III. Major Factors Affecting Reliability

1. One firm interpreted wage payments as the **average** payments to each worker rather than **total** payments to all production employees. It should be specified clearly in section IV 3 and questions IV 3a-e that the data relate to total payments to all production workers in the pay period (Jumlah upah yang dibayarkan kepada **semua** karyawan produksi and **Total upah/gaji pokok**).

2. In several cases the firms reported data in Rp. rather than Rp.000. Although Rp.000 is specified on each line of the questionnaire, the print is very small. As there probably is not enough space to add three boxes for zeros in the questionnaire, the Rp.000 should be highlighted in bold and repeated at the top of each column in bold and capitals. Alternatively, the page of the questionnaire could be widened for addition of three boxes with 000 enclosed.

3. The mantri should add up all wage payments (basic wage, allowances, overtime) and fill these data in the space provided in the questionnaire. This will facilitate consistency checking at the processing stage.

4. So that the mantri and the firm can check the result quickly, one additional line should be added to section IV 3 to specify **average wage payments per worker** (calculated by dividing total wage payments (IV 3e) by the total number of employees (IV 2a). Mantri should be instructed to **check these data at the time of interview or collection of questionnaires** to avoid having to return to the firm to obtain the data a second time. They should be further checked at the provincial office and at the data processing stage.

5. A major problem of consistency has emerged in the questionnaire because many firms do not distinguish tunjangan tetap (regular non-basic wage payments) and overtime payments in the reported data on total wage payments, although they do report the payment of tunjangan in Block II of the questionnaire. To assist in editing, the following should be added to Block II of the questionnaire:

- Can tunjangan be distinguished as separate payments in the reported total wages of production workers?
- Do minimum and maximum wages include tunjangan payments?
- Were production workers paid overtime in the pay period?
- Can overtime payments be distinguished as separate payments in the total wages reported for production workers?

In order to help overcome these problems for the first and following rounds, more simple validation forms could be drawn up immediately and distributed to the provinces. These would cover:

- data on total wages and total number of workers in each pay period
- average wages
- maximum and minimum wages (average wages should lie in between the maximum and minimum)

IV. Other Problems

1. From visits to **garments factories** which pay according to piece rates, it became clear that no clear distinction is made by firms regarding overtime payments. The main distinction in the pay rates in these firms is **achievement of production targets** irrespective of time worked. Such a principle is likely also to apply in other industries where piece rates predominate, such as kretek cigarettes and small scale weaving establishments

or from the tabulations. For these firms, separation of overtime and normal hours earnings is not useful, unless a special payment is made for overtime hours worked. In the revision of the questionnaire, it would be useful to distinguish piece rate employees (tenaga borongan) from contract and casual workers (tenaga kontrak dan harian lepas).

Although the separation of normal and overtime payments may be a problem for this category of workers, we do not suggest that the distinction between normal and overtime wages be dropped from the questionnaire or from the tabulations. In most industries, overtime payments may still be an important indicator of fluctuations in labour demand.

2. **Definition of Production Workers.** There were a number of problems associated with the definition of production workers in instructions/definitions included in the questionnaire:

- Some firms interpreted reporting of data for all production workers except foreman/technicians as including other supervisory personnel such as kepala urusan. A clearer definition would be **dibawah tingkat mandor/teknisi** rather than **kecuali mandor/teknisi.**

- In the definition of production workers in the penjelasan umum, mandor and teknisi/mandor are included in the list. These should be excluded to avoid confusion. Also a distinction is made between warehouse/storage workers allocated to tasks for bahan baku (included) and barang jadi (excluded). This distinction is confusing and difficult to make in practice, and should be dropped (all warehouse/storage personnel should be covered)

- In order to exclude highly skilled workers (outside technicians) which are generally included by firms in their lists of production workers but are paid very high salaries, a note should be added to the definition of production workers which specifies that **karyawan dengan ketrampilan khusus yang dibayar upah/gaji tinggi tidak termasuk dalam definisi karyawan produksi.** Examples are tukang gambar in textile firms and tenaga analisis in chemical firms. Inclusion of these employees is likely to provide an upward bias in the estimation of wages in larger, more capital intensive firms.

There are almost certainly likely to be other problems which arise in the filling in of the questionnaires during the first stage of the survey. One important step to help minimize the 'noise' arising from incorrect reporting would be for the Manpower Section Head and the Head of the Wages Sub-Section to make further visits at least to major areas of data collection (Surabaya, Semarang and Medan) to visit firms and inspect questionnaires already completed. If possible, these trips should be made before the second round survey begins in June/July. A more comprehensive list could then be completed of problems encountered in the first stage and circulated to provincial and kabupaten offices. It may be possible for DSP to assist in financing these trips. It would also be useful if Dr. Alex Korns was involved in discussions of this list and, if time permits, I would also be prepared to provide comments.

3. **General Principles for Fine-Tuning.** In general the underlying principles in any clarification or fine tuning of the questionnaire should be that:

- the data should reflect the wages of unskilled labourers and semi-skilled operators but should **exclude highly skilled workers, supervisory, administrative and managerial personnel.**

- where doubt exists as which employees might be included, the above principal should be adhered to, plus reference to the extent to which firms will find it easy to make clear distinctions based on their wage sheets. For example, the above mentioned distinction for storage/warehouse workers is unlikely to be made clearly in many firms and, moreover, all these workers are likely to be unskilled or semi-skilled.

Note 5 :

Editing and Tabulation of Survei Upah Buruh Data

I. Editing

From the field visits and a preliminary look at some of the questionnaires returned to BPS, it is clear that the first year, and particularly the first round, survey results will require substantial editing. These problems need to be tackled in several stages.

A. Immediate Action

1. The identification and classification of major problems in reporting at BPS. The latter will involve establishment of rules for classifying doubtful, inconsistent or implausible data in individual questionnaires into groups of
   - inconsistent but acceptable responses
   - doubtful or incorrect responses which need to be rechecked in the field in major survey areas
   - doubtful or incorrect responses for which data cannot (for practical reasons) be checked in the field and the cases need to be dropped from the sample.

2. Contact with regional offices in major survey areas (Jakarta, West Java, Central Java, East Java and North Sumatra) to explain these problems to staff and mantri, referring to actual examples from the questionnaires. If necessary, questionnaires which have major inconsistencies should be returned for rechecking.

B. Action Prior to Round 2 of the Survey 1992

In order to substantially reduce inconsistencies and editing problems in subsequent rounds, a set of supplementary guidelines should be prepared and distributed to all regional offices **before the second round questionnaires are issued.** It would be useful if these could be explained to regional staff in the proposed visits to major survey regions mentioned above. These guidelines should include:

1. Basic rules for consistency checking (relationship of average to minimum and maximum wages, values of average earnings which lie

outside the expected range, failure to separate **tunjangan** and overtime payments in the statement of total wages). To assist in consistency checking, the mantri can use a simple tracking card. The card shown here is a simplified version of the one used by BPS.

2. Areas of potential error due to questionnaire format or incomplete instructions in the questionnaire (see specific points in my report on the field visits).

C. Training and Fine-Tuning of the Questionnaire

The proposed training of regional staff and fine-tuning of the questionnaire would be the final steps in reducing response error and these steps should be taken for the survey rounds in 1993.

The above mentioned steps to improving the quality of data might seem to involve an excessive commitment of resources to improving data in the Survei Upah. It is important to bear in mind however that with the simplified questionnaire, the new Survei Upah has the potential of providing high quality data on non-agricultural wages for the first time in Indonesia. **In all developing countries, wage data are among the most difficult to collect reliably on a national basis.** Careful attention to issues of data quality in this crucial first year of the survey would put Indonesia in the position of being one of the few developing countries in the world with high quality non-agricultural wage data.

II. Tabulation

Data collected in the Survei Upah Buruh should be tabulated and published on a quarterly basis. It is proposed that the data be published in a separate publication in 1992 for limited distribution. Once the major problems with the data collection have been addressed, the survey results would be published in a separate BPS publication, and several key summary tables could be published in Indicator Ekonomi and the annual publication Keadaan Buruh/Pekerja Di Indonesia (The Situation of Employees in Indonesia) in 1993.

The key indicator of wages published from the survey would be average weekly earnings of production workers, including both (i) the absolute value of earnings in rupiah and (ii) an index of the change in average weekly earnings.

Average weekly earnings should not be calculated from data on days worked which are likely to be somewhat unreliable and which are not relevant to the calculation of monthly and bimonthly earnings. For employees paid in each of the four pay periods distinguished in the questionnaire, average weekly earnings would be calculated as follows:

Weekly: As reported in the questionnaire.

2-Weekly: Total earnings/2

Bimonthly: Total earnings/2.173 (365/12/2/7)

Monthly: Total earning/4.345 (365/12/7)

It should be **explained in the notes to the publication** that weekly earnings are calculated based on the estimated number of weeks covered by the pay period (for all employees not paid on a weekly basis). The data are **not** based on (i) actual days worked by employees or (ii) the number of person days in the pay period based on total number of workers on the paysheet multiplied by number of days in the pay period.

1. Earnings per employee:

This should be derived from the total earnings per week divided by the number of employees. Although average earnings will also be calculated in the (revised) questionnaire for checking purposes, the data presented in the final tabulations should be based on computer calculations from the raw data on total earnings and number of employees.

Note: The present questionnaire records the number of employees as the **average number** of workers per pay period. Since firms are unlikely to report this figure with complete accuracy, a more reliable definition is the number of employees on the pay sheet for the pay period.

2. Duration of the Pay Period:

Duration of the pay period is included in the questionnaire to facilitate establishment reporting of data. **Duration of the pay period has no particular analytical significance**, and the tabulated data should **not** be broken down by this variable (eg. average earnings for employed on a weekly, 2-weekly, bimonthly and monthly basis).

3. Normal and Overtime Earnings:

Tables should show three components: average normal weekly earnings, average weekly overtime earnings and average total earnings.

4. Survey Months:

March, June, September and November. It is best to avoid December because this is an unusual month for many firms and reporting of data is likely to be delayed in January.

5. Breakdown of the Data by Industry and Province:

The published data should include the following tables:
(For tables 2, 8 and 9 the regional breakdown would include Jakarta, West Java, Central Java/Yogyakarta, East Java, North Sumatra, Other Sumatra, Kalimantan, Other Provinces.)

Note: **The restriction that no cell should include less than five establishments should be applied to all tables.** This is most important to minimize variations in the results due to sampling and non-sampling error. Unless this rule is followed, it is most likely that 'noise' will tend to dominate real patterns of interindustry, interregional and time trend in earnings.

Table 1 : Number of Establishments and Production Employees by Large and Medium S.2E Category and Industry, Sample Firms 1992.

Industry	Large		Medium	
	No. of Establishments	No. of Employees	No. of Establishments	No. of Employees
Manufacturing 31 Food . . . . 32 . . . . . 39 Hotels Mining				
Total Sample				

Table 2 : Number of Establishments and Production Employees by Major Manufacturing Industry and Province/Island Group, Sample 1992

Manufacturing	Java				Outer Islands				Indo-nesia
	DKI Jkt	West Java	C.Java/ Yogya	East Java	N.Su-matra	Other Sumatra	Kali-mantan	Other Provinces	
No. of Establishments 31 Food ... 32 39									
Total Sample									
No. of Employees 31 Food ... 32 39									

Table 3 : Average Weekly Earnings of Production Workers Below the Level of Mandor in Manufacturing, Hotels and Mining, 1992

	Rupiah			Index		
	Manufac-turing	Hotels	Mining	Manufac-turing	Hotels	Mining
Regular Earnings March June September November				100	100	100
Overtime Earnings March . . November				100	100	100
Total Earnings March . . November				100	100	100

Table 4 : Average Weekly Earnings of Production Workers Below the Level of Mandor in Mayor Manufacturing Industries 1992.

	Rupiah				Index			
	March	June	Sept.	Nov.	March	June	Sept.	Nov.
Regular Earnings								
31 Food					100			
32					100			
.								
.								
.								
.								
39								
Total Sample					100			
Overtime								
31 Food					100			
32								
.								
.								
.								
39								
Total Sample					100			
Total Earnings								
31 Food					100			
32								
.								
.								
.								
39								
Total Sample					100			

Table 5 : Average Total Earnings of Production Workers Below the Level of Mandor in Large and Medium Establishments in Indonesian Manufacturing, 1992

	Rupiah				Index			
	March	June	Sept.	Nov.	March	June	Sept.	Nov.
Large Establishments								
31 Food					100			
32					100			
.								
.								
.								
.								
39								
All Industries					100			
Medium Establishments								
31 Food					100			
32								
.								
.								
.								
39								
All Industries					100			

Note: No Breakdown of regular and overtime payments for this table and for tables 6, 7, 8 and 9.

Table 6 : Average Total Earnings of Production Workers Below the Level of Mandor in Manufacturing by Major Three Digit Industry Group, 1992

Industry	Rupiah				Index			
	March	June	Sept.	Nov.	March	June	Sept.	Nov.
311					100			
312					100			
.					.			
.					.			
.					.			
.					.			
.					.			
.					.			
.					.			
.					.			
399					.			
					100			

Table 7 : Average Total Earnings of Production Workers Below the Level of Mandor in Manufacturing by

Province	Rupiah				Index			
	March	June	Sept.	Nov.	March	June	Sept.	Nov.
Aceh								
.								
.								
.								
.								
.								
.								
.								
.								
Irian Jaya								
					100			

Table 8 : Average Total Earnings of Production Workers Below the Level of Mandor in Manufacturing by Major Province and Island Group, 1992

1. DKI Jakarta

Industry	Rupiah				Index			
	March	June	Sept.	Nov.	March	June	Sept.	Nov.
31 Food 39								
					100			

Repeat for other main provinces of Java, N. Sumatra, Other Sumatra, Kalimantan, Other.

Table 9 : Average Total Earning of Hotel Employees Below Supervisory Level by Major Province and Island Group.

Province/ Island Group	Rupiah				Index			
	March	June	Sept.	Nov.	March	June	Sept.	Nov.
DKI Jakarta West Java C. Java/Yogya E. Java N. Sumatra Other Sumatra Kalimantan Other Provinces								

6. Minimum Wages:

The above-mentioned tables do not include any data on minimum wages which are also recorded in the questionnaire. These may also be tabulated for tables 3 and 5, and possibly 7 as a comparison with average earnings data. [8]]

7. Publication of Results.

The first quarter results should be published no later than the end of June 1992 and should be circulated for comment on the table formats and survey results. Obviously these data would not contain any quarterly breakdown but quarterly breakdowns would be added as data come in for the second and subsequent quarters are processed. As data becomes available for 1993, data might be published in two tables (i) Rupiah values for the current quarter (ii) An index of earnings beginning in the first quarter 1992 through to the last quarter of data collection. **It is important to remember that the main aim of the survey is to publish an index of wage trends for several years rather than annual survey results**, and the format of tables should be adjusted accordingly.

If the tables are to be included in the Indicator Ekonomi, a small number of key tables should be designed specifically for this purpose.

[8]It is not correct (as Martin Godfrey suggest in his excellent 1991 ILO paper on wages) that data on minimum wages paid by firms are covered in other surveys. The only regular reporting of these data are by DEPNAKER (these data are published in the appendices to The Budget Papers [Nota Keuangan]. Unfortunately, the data are extremely unreliable because they cover a small, fluctuating sample of large firms only.

Note 6 :

Suggestions For Supplementary Wage Surveys In Additions To The Employees Wage Survey (Survei Upah Buruh)

During my consultancy of April 27 - May 13 1992, I was asked to review the possibility of designing wage surveys which might be undertaken by BPS in addition to the new Survei Upah Buruh. Since wage data are collected on a national basis in the rice sector through the farmers terms of trade survey (published only for the major provinces of Java) and for major commodity groups in the plantation sector, this note is restricted to discussing the possibility of collecting wage data in the non-agricultural sector. [9] In preparing this note I had discussions with staff in the Manpower Section of BPS, Department of Manpower, BAPPENAS and World Bank on what wage data priorities for public and private sector planning and policies.

I. Objectives Of Wage Surveys And Major User Needs

The major objectives of wage surveys are to monitor labour market developments, wage and earnings structure, manpower needs and labour costs. Analysis can be undertaken at a regional and sectoral level. A basic distinction is usually made between the wages of unskilled labour on the one hand, and skilled and professional manpower on the other. Analysis of unskilled wage rates is undertaken to indicate changes in the balance of labour demand and supply, labour costs and as a proxy of changes in incomes of wage workers. Analysis of skilled and professional wage rates mainly addresses issues of manpower planning and skill shortages, and the distribution of labour earnings.

Manpower and labour market planners and policy makers in Indonesia whom I interviewed were chiefly concerned with the following issues:

1. **Levels of and trends in unskilled wage rates** with particular reference to compliance with regional minimum wage legislation and the meeting of minimum physical needs (KFM), trends in the incomes of wage workers and trends in wage costs especially in export oriented industries.

[9] The major sources of wage data in Indonesia are summarized in Martin Godfrey's paper Wage Statistics for Employment Monitoring and Labour Market Analysis (DEPNAKER/UNDP/ILO, 1991).

2. The **spread of wages** between unskilled, skilled and professional and managerial manpower as an indicator of trends in the distribution of income.

3. **Shortages in the supply of technical and professional manpower**, and their implications for educational and training policies.

4. **Public and private sector wage differentials** with particular reference to flow of professional and managerial manpower from the public sector to the private sector, and the inability of the public sector to compete with the private sector in the recruitment of high quality graduates.

In planning the design of new wage surveys which might be undertaken by BPS on a regular or ad hoc basis, it is important to emphasize that these needs **cannot be met by one multipurpose survey**. Specific surveys need to be designed to meet specific objectives. In suggesting what surveys might be undertaken by BPS to meet the above mentioned needs, I will stress approaches to collecting data on wage levels and structure.

This note will not address issues of collection of data on wage costs, wage distribution or wage rates required for compliance with minimum wage legislation.

- Data on **wage costs** are currently collected in the annual survey of large and medium establishments, small and cottage industry surveys and industrial/economic censuses.
- Data on **income distribution** among wage workers are best answered through household income/expenditure surveys such as SUSENAS (especially the revised SUSENAS) and through SAKERNAS, rather than through establishment surveys.
- Finally, although they can collect important data on wage trends which is of value for wage policies, national statistical agencies are not the appropriate bodies for collecting data which is needed for **monitoring of enterprise compliance with minimum wage standards**.

II. Issues Addressed In The Survei Upah Buruh

The Survei Upah Buruh is designed as an indicator to provide quick monitoring of wage trends of **unskilled labour** in the manufacturing sector. It will be an important indicator of labour market trends because it covers quite a large number of workers in the most rapidly growing sector of the Indonesian economy.

However it is important to bear in mind the issues which it does **not cover**:

- It collects data mainly on **labour earnings** rather than wage rates
- It only deals with **production workers** and not specific occupational groups, especially those which might be examined for manpower planning purposes
- It mainly covers the manufacturing sector and does not provide a useful indicator of **service** sector wages
- Because the manufacturing sector is highly concentrated in certain regions (provinces), it is not a good indicator of **inter-provincial** wage levels and differentials.

The basic question is how might these data best be provided through national surveys?

III. Possible New Surveys

Our recommendation for new wage surveys covers **two** main areas: surveys of relatively unskilled wages in key service sector occupations which are spread throughout Indonesia, and surveys which deal with occupational wage differentials and are of value to manpower planners.

Unskilled and Semi-Skilled Wages in Services. There are two possibilities for such a survey: service sector employees or construction workers. Given funds and manpower available, it is recommended that only one of these alternatives should be selected in the medium term, and that BPS should investigate the feasibility of each before deciding on which should be of highest priority. The alternatives are:

(i) A survey of wages in **key occupations in major service activities** including restaurants, shops and department stores and hotels. In order to avoid the problem of estimating earnings of family workers, minimum sized establishments should be specified (for example a minimum of 5 employees). The advantage of these sectors is that occupations are clearly defined and relatively homogeneous.

(ii) A survey of wages of **construction workers** in both urban and rural areas in Indonesia. Some data are already collected by BPS together with other data on construction costs in major cities. But the sample is too small to be a reliable indicator wages in Indonesia. A much larger sample which dealt with wages in major occupations in construction throughout Indonesia would provide a useful measure of inter-provincial and inter-regional wage trends. In most countries, wages in the construction sector are a major indicator of trends in unskilled wage rates.

Both surveys would complement the Survei Upah Buruh in that they would provide a much better measure of the **regional distribution** of wages in Indonesia. I would envisage that once one was selected, BPS might consider dropping the sample of hotels and mining establishments in the Survei Upah Buruh, and concentrate this survey on the manufacturing sector. I would envisage that a survey of unskilled wages in services would be conducted on an **annual basis**.

IV. Surveys of Occupational Wage Rate Differentials in Key Sectors.

It is important to bear in mind that the best way to collect data on occupational wage structure for the purposes of manpower planning is through household surveys. These are able to link individual characteristics with occupation and sector of activity. As a first step in this direction, it would be much more cost effective and useful to develop occupational categories which could be included in SAKERNAS for the purpose of manpower planning. This is an issue of high priority to improve the data base for manpower planning in Indonesia.

As a complement to data collected in SAKERNAS, the feasibility of two other activities might also be investigated:

1. **A regular, annual survey of the availability of manpower and wages of highly skilled and professional manpower in very large establishments** in modern manufacturing and key service industries such as banking, insurance. This survey would aim at identifying in which sectors major bottlenecks are occurring and how this is reflects in wages. Thus in addition to collecting data on wages, the survey could also obtain information of a qualitative nature on the key occupations where the firm experiences labour shortages, some key characteristics of starting level employees, labour turnover and training programs.

   The advantage in selecting very large, modern sector establishments (for example, 1000 employees or more), is that these firms are likely to employ a much wider range of occupational groups, and most would employ certain categories of professional manpower such as engineers, accountants, secretaries which perform similar functions. Such a survey would **not need to cover all regions**, as labour markets for such personnel are quite integrated on a national basis.

2. **Occasional surveys of the specific manpower situation and needs, and wages in certain sectors, according to demand.** Such surveys would be sector specific (for example, banking and finance or a particular industry in manufacturing such as garments) and be conducted by BPS at the request of other agencies. Such surveys are already regularly conducted by BPS, and given their highly specific nature generally require professional assistance from the outside agencies which request the data.

V. Steps In The Planning Of New Surveys

1. All of the new surveys proposed would require that carefully designed presurveys be undertaken to examine wage payment systems and occupational structures and categories. Special institutional arrangements are often a feature of wages in certain occupations such as construction crew workers and hotel employees (service fees are frequently divided among employees in the latter).

2. BPS might consider requesting assistance from specialized research bodies (such as YKTI or AKATIGA) in the area of manpower and wages to undertake small, focussed research projects which would indicate the range of wage payment systems and occupations in particular sectors.

3. If funds were available for the examination of possible surveys to be undertaken in 1993/94, then one might envisage the following time schedule of work:

   1993/94: Presurveys of wage systems, and design of questionnaires

   1994/95: Pilot surveys

   1995/96: First round of full surveys

Appendix

The Old Employees Wage Survey

(Survey Upah Buruh Lama)

I. Brief Description of the Survey.

A. General.

The data were collected quarterly for a range of occupations in all major branches of manufacturing (two digit ISIC), hotels and losmen, transport and mining. **The total sample covered approximately 3300-3500 establishments**, 2300-2500 large and medium manufacturing firms (over two-thirds of the total sample), 500-600 hotels and losmen, approximately 300 transport enterprises (only in Sumatra and Java/Bali) and approximately 30 enterprises in mining. Data were published only for production workers and did not include the mining enterprises.

B. The Questionnaire.

In the questionnaire, wage data were reported in **two key tables** (See Appendix I):

1. the first table included data on number of workers, person-days not worked, regular wage payments, person-hours of overtime and overtime wages in the previous month for four major groups of employees: managerial, supervisory and administrative, production and other. **The data covered all workers, both casual and permanent.**

2. the second table included data on the number of employees, days and hours worked, and regular wage payments of **permanent** employees only by occupation in the previous month. **Occupations were left open for the firm to specify.**

C. Data Collection and Publication.

The data were collected by the mantri statistik. Although **the data were collected on a quarterly** basis, owing to substantial delays in reporting, administration of the questionnaire and processing, **data were published annually**, with a time lag of 12-18 months from the last quarter of data collection.

The published data included **daily wage rates for permanent production workers** which were recorded:

(i) in summary tables by industry for all Indonesia, and by region for all industries.
(ii) for specific activities or occupations broken down by region and industry.

Wages of non-production workers and casual workers, and overtime earnings were not recorded in the annual publication.

II. Problems with the Survey

The major problems with the survey were identified by Alex Korns in his paper **Wage Data at BPS** (1988), in a note by the Manpower Section of BPS on the Survei Upah (June 1989) and from a brief field survey conducted by BPS staff, Dr. Korns and the writer in June 1989. Major problems were encountered in three specific areas: (i) implausible wage differentials and rates of real wage change, (ii) lack of standard occupational categories by industry and (iii) substantial delays in reporting and processing of data. I will deal briefly with each in turn.

A. Wage Differentials and Wage Change.

The published data from the survey suggested wide differentials in wages in selected industries and activities **across** regions and **within** regions. They also produced implausible **changes** in real wages over time. These variations can be attributed to the following problems:-

1. The survey **did not clearly identify specific occupations** in terms of skill or responsibility for many jobs conducted by production workers. In a range of activities wages were reported according to broad areas of production (packing, storage) rather than according to the skill level of workers. Wage differentials within these sections are likely to reflect differences in skill composition of the work force in addition to interfirm or interregional differentials.

2. There was considerable **variation in wage components** reported by specific firms. Provided the sample size was large enough and firms reported the same components in each round, this would not be a problem for comparison of occupational or interregional differentials, or changes over time. But for most regions in Indonesia the

sample of firms in many industries in manufacturing was small (1-5 enterprises) and non-response of one or more enterprises in a particular year had a substantial impact on the level of wages reported.

3. **The interpretation of data on wage rates was complicated by the inclusion in the sample of workers paid according to time and piece rates.** Many firms in certain industries covered in the survey (for example, kretek cigarettes, weaving and garments) remunerate workers by piece rates or a combination of piece and time rates. The wages of piece rate workers tend to vary directly with hours worked and, in non-mechanized firms, with intensity of work and skill. They can be expressed as time rates only if hours worked are recorded accurately by firms. In practice, firms did not report hours worked accurately, usually understating these (sometimes substantially) for piece rate workers. Piece rate earnings also tend to fluctuate considerably according to production levels in particular months or seasons. The problem of comparing piece rate earnings with time rates was further complicated by arbitrary adjustment by data processors of piece rate earnings in quarters where these were reported to have fallen. [10]]

B. Lack of Standard Occupational Classifications.

As noted, firms were left free to specify occupations and these were then standardized for particular provinces by BPS staff. As a consequence, **the occupations for which wages were reported were not standard across provinces.** A slightly different but related problem was confusion over which categories of worker should be considered casual and which were permanent, especially in smaller scale firms many of which do not make a clear distinction between these two categories.

C. Delays in Reporting, Processing and Publication.

Four major problems were identified as contributing to these delays:

1. **at the firm level**, the time required to fill in the data on occupational wages meant that enterprises tended to give the questionnaire lower priority than other requests for data which involved

[10]Although reported earnings fell in specific quarters for piece rate workers in certain industries, the practice adopted by the data processors was to assume that wage rates were at least the as high as in the previous quarter.

less administrative resources. Mantri Statistik frequently had to make several visits to the firm before the schedules were finally collected.

2. **delays in the flow of documents within the Statistics Bureau** - from the mantri statistik to the kabupaten and provincial offices and finally to the central office.

3. **the low quality of data necessitated rechecking of the data** at the enterprise level or time-consuming adjustments, on a case by case basis, made by BPS data processors and staff.

4. **the large, heterogeneous and regionally dispersed sample** covering all major manufacturing enterprises in all provinces of Indonesia except East Timor. This contributed to wide variations in wage rates, low quality of data, heterogeneity of occupations covered and, most importantly, delays in data collection. [11] The BPS 'custom' that data for all provinces should be included in any publication, meant that data could not be reported on a national basis until the schedules were returned from all provinces.

III. User Needs And Complaints

The Principal (potential) users of the survey within the government have been the Department of Manpower and BAPPENAS (and their provincial offices), both of which are engaged in labor market monitoring and manpower planning. Provincial governments and the Investment Coordinating Board (BKPM) are also a potential users, as are private firms (although they are more likely to be interested in labour costs) and academic analysists concerned with labour market efficiency, labour costs and employee welfare.

A. Labour Market Monitoring.

The two **main** reasons for government monitoring of labour market conditions are to detect **changes, especially downturns, in labour demand** associated with economic developments, and to monitor wage **rates** which are of relevance to government wage and employment policies. Trends in **average earnings** - principally regular wage plus overtime payments - of unskilled labour

[11] In the largest sector, manufacturing, less than 20 firms were covered in 9 provinces, and in a further 12 provinces only 50 firms were covered in 1990. The published data for manufacturing were broken down by as many as 7-12 sub-sectors in these provinces.

are the most appropriate measure of short term changes in labour demand. [12] Trends in **wage rates** (regular wage payments excluding overtime) are a less accurate measure of changes in labour market conditions but they are the most appropriate measure for employment planning. They may also be used as an indicator of labour costs, although it is more appropriate to collect these data through the industrial census.

To be of any value for monitoring labour earnings and daily wage rates, data should be **reported at least on a quarterly basis** and **published with a maximum lag of one quarter** from the time of data collection. Ideally data should be recorded and published on a monthly basis, and the usefulness of the survey for policy makers would be greatly enhanced through publication of data (either quarterly or monthly) with a lag no longer than one month.

The survey was designed to provide data on both labour earnings and wage rates but only data on wage rates were ever published. Monitoring of wage rates was rendered ineffective because of the substantial delays in publication of the results of the survey. Confidence in the data were undermined by the very considerable range in daily wage rates of different categories of production workers between industries and regions.

B. Manpower Planning.

The survey was not designed to provide data for manpower planning purposes. The main occupations usually addressed in manpower planning exercises - professional and technical manpower - were not included or were not specified with sufficient precision in the survey.

IV. Overall Evaluation

It should be acknowledged that the old Survei Upah Buruh **filled an important gap in data on wages in Indonesia for over a decade**. It was the first regular survey of non-agricultural (and especially manufacturing) wage rates ever published and by far the most useful - even given the shortcomings mentioned above - in the country. It provided a broad picture of wage rate levels and differentials within manufacturing and the other sectors across major sectors and regions. One should also bear in mind that collection of data from enterprises in a wide range of industries and

[12] Overtime payments are a central component of this measure as they are frequently the first indicator to show shifts in labour market condition.

spread over an archipelago in a country as large as Indonesia is a huge and complicated task.

The needs of the government and the private sector have nevertheless become more sophisticated and specific in the areas of both manpower planning and labour market monitoring. The need for early warning monitoring of labour market conditions through more accurate reporting of wage data is felt much greater than a decade ago. The significance of wage data for evaluation of labour market conditions has increased as the proportion of wage workers in the labour force has grown, especially in the manufacturing sector.

More specific needs in this area cannot be met adequately by a multi-purpose survey such as the old Survei Upah Buruh. Different surveys are required for monitoring of labour market conditions of unskilled and production workers, occupation wage differentials and inter-industry and inter-regional wage differentials. There is an urgent need to define what are the priority demands of users and how these might be best fulfilled.

REVIEW OF PROGRESS ON THE QUARTERLY WAGE SURVEY AND SURVEYS OF WAGE STRUCTURE

DSP #178

by

Chris Manning

December, 1992

Statistical Paper #44

Restricted

TABLE OF CONTENTS

LIST OF TABLES

I. MAJOR CONCLUSIONS AND RECOMMENDATIONS

The terms of reference for the consultancy were to review progress in the new wages survey (SUB) and to make recommendations to BPS regarding priorities and a timetable for surveys of wage structure. In close cooperation with staff from the Manpower Division of BPS and Dr. Alex Korns, preliminary findings from the SUB were examined, and a trip made to Bandung to discuss problems of data collection in the survey. Discussions were held within BPS and with representative of the key users and potential sponsors of the surveys (BAPPENAS and the Ministry of Manpower) on both the SUB and aims, design and execution of surveys of wage structure. The major conclusions and recommendations regarding the SUB and surveys of wage structure are set out below.

A. The Quarterly Wages Survey (Survei Upah Buruh [SUB])

1. Considerable progress has been made in the introduction of a new SUB with the execution of the first three quarters of data collection to November 1992. Although some data reporting still lagged beyond the three months time limit set for the survey, the speed of reporting was improved in the second and third quarters of 1992. The target of publishing the data within three months of data collection is achievable, provided additional efforts are taken to assist speedy reporting. Our field visit to Bandung indicated that there was considerable variation in the speed of reporting by kabupaten/kotamadya. Examination of the causes of delays at this level of administration is warranted.

2. The major problem with the survey is low data quality for a relatively large proportion of establishments (approximately 5-10%), even after editing had been conducted at BPS. The large majority of these establishments have reported wages for employees other than production workers (below the level of foreman/technician), including the wages of skilled, supervisory and managerial employees which the survey was not designed to

cover. As a result, there has been a significant upward bias to total average wages recorded by industry and region.

3. This should be regarded a serious problem. It calls into question the entire rationale for a much shorter and focussed questionaire. Considerable detail on wages have been sacrificed on the understanding that the new survey will be able to provide key users with a new measure of wages which is reliable and of high quality. It is important to remember that the new survey provides just one measure of wages, and the reliability of this measure will be scrutinised much more carefully than in the past.

4. In order to retain the confidence and support of key users of the data, **it is essential that the problem of low quality data reported by a some estab-lishments be tackled immediately and systematically**. The goal should be to ensure that the problem of incorrect responses be overcome for most enter-prises, so that data can be published on time for the first quarter in 1993.

5. The following actions are recommended over the next 5 months:

Immediate (December 1992 - January 1993)

(i) Design and distribution of a supplementary section to the questionaire which includes information on the number of production and non-production workers engaged in each enterprise. This additional page should be included with other minor revisions in a new edition of the questionaire prepared for 1994.

(ii) Revision of the Enterprise Report Forms (KLP - Kartu Laporan Perusahaan) to enable more systematic editing of data and simple validation at the kabupaten and provincial level.

(iii) Circulation of a notice to all provincial offices explaining the major source of errors, addition of the supplementary form to the questionaire, revisions to the KLP and simple systems of editing and validation by using the KLP.

Medium Term (February-April 1993)

(i) Training of provincial and kabupaten staff on the SUB questionaire and filling in of the KLP, especially in key provinces. This is a most important step, bearing in mind that training on the SUB in 1992 was not very effective.

(ii) Completion of programming and training of BPS staff in data entry, validation and analysis to ensure a smooth editing and publication of the first quarter results for 1993 in June of that year.

(iii) Computation of data on speed of response by kabupaten in key provinces (West, Central and East Java and North Sumatera) and by province elsewhere, examination of the major factors contributing to slow response in particular regions, and design of a strategy for overcoming this.

(iv) Another medium term issue is the introduction of techniques for monitoring the speed and quality of the SUB. Because of the simple questionaire and relatively small sample, SUB may be treated as a pilot project for the increasing number of surveys for which higher quality and more rapid reporting is required. The Head of the Man power (and later the Wages) Division should have access to indicators of performance in speed and quality by province which he can easily use to monitor the progress of the survey. Indicators such as errors in filling out the KLP, the proportion of questionaires which require edit-ing at BPS, the proportion returned to the province for correction, and the average lag in the cumulative number of questionaires submitted each month for each quarter of the survey. An aggregate index of performance relative to other provinces and over time could be derived from such indicators. It is recommended that the Manpower division design and test a system of monitoring of the wages survey in the second half of 1993 for full implementation in 1994.

6. Given these problems, the publication schedule for the new SUB should be revised. Further editing is required before the data for 1992 can be tabulated. The data should be tabulated and made available on a restricted basis but not published for 1992. It is most essential however that the publication schedule be met in 1993: the target should be to publish the first quarter results in June 1993, and publish data for subsequent quarters three months after execution of the survey.

7. The tabulation plans should be revised owing to the large variances inherent in the data, and the failure of many establishments to adequately distinguish overtime payments as a separate component of wages. It is recommended that:-

(i) Median and mean wages (earnings) be tabulated, with median wages as the **major** indicator of wage change

(ii) There be no separation of overtime earnings in published tables.

(iii) All tables would include average wages for all wage systems combined, and not include any separate tabulations of average wages by wage system.

(iv) Considerable care be taken in disaggregating the tabulated data by province and industry, owing to the small sample size.

8. In the longer term, through 1993 and 1994, attention will need be given to the sample and sampling frame used for the wages survey. At present, larger establishments are heavily over-represented in the sample, owing to a sampling procedure which selected all firms starting from the largest producer in each industry/region group based on the value of output recorded in 1989. [1] It is recommended that a different sampling procedure be adopted for the survey in 1994 based on the 1991 or 1992 L&M Industry Directory. The number of employees rather than value of production should be the basis for stratifying the sample and, although larger firms may disproportionately (over) represented, it is not necessary to take a census of all larger firms. Careful thought needs to be given to the criteria applied to sample design, and the survey would benefit greatly from the advice of an expert statistician such as Vijay Verma.

B. Surveys of Wage Structure

1. From meetings with DEPNAKER and BAPPENAS staff it was decided that **three surveys of wage structure might be undertaken each year**: two regular surveys and one special survey. The major gaps which need to be filled through regular surveys are (i) a survey of regional wage differentials and (ii) a survey of occupational wage differentials. Following piloting and pre-tests of questionaires, a plausible target date for the beginning of these surveys would be 1995.

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[1] This was undertaken for large and medium firms separately.

2. **A Survey of Regional Wage Differentials** is needed to fill a major gap in coverage of wages across all provinces in Indonesia (the SUB cannot provide a reliable measure of provincial wage differentials). The most appropriate sector to be covered is services which, unlike manufacturing, is widespread throughout Indonesia and relatively homogeneous. The sectors and occupations which might be covered are trade (shop assistants, petrol station attendants), transport (travel bureau/bus company ticket officers) and restaurants (waiters/waitresses).

3. **Survey of Occupational Wage Differentials** would concentrate on relatively homogeneous, skilled and professional manpower which are employed by most larger scale establishments (500 employees or more). The surveys would aim to provide information for manpower planning and on wage spread within enterprises. Possible occupations to be covered are managers, engineers, secretaries, accountants, bookkeepers, and machinists. The survey would collect data on maximum and minimum wages in each occupation, and characteristics of workers receiving maximum and minimum wages (age, such as years of service, education and gender). The survey would not need to cover all provinces, since wages in most of highly skilled activities do not vary greatly or systematically across region. The sample could also be relatively small (no greater than 500 establishments).

4. **Special surveys** would be designed according to user needs and could cover specific occupations, industries or segments of the labour market. They would require considerable inputs from DEPNAKER and technical departments in design and planning.

5. It is recommended that BPS begin to plan, pre-pilot and pilot the regular annual surveys in financial year 1993/94 (in accordance with the time schedule already set out by the Head of the Manpower Division).

6. A team should be set up to plan the pre-pilot studies of wage structure in services and large establishments consisting of the Head of the new Wages Division, and Dr. Alex Korns, in

cooperation with an outside consultancy agency. Planning of the pre-pilot would begin in April 1993.

C. Planning Organisation And Administration Of Wage Surveys

1. Beginning with the new SUB, important innovations in the execution of wage surveys in Indonesia offer an exciting opportunity for the Wages Division in BPS to establish several new surveys. These will become part of the Agency's regular data collection efforts for the forseeable future. However, as experience with the new SUB has shown, establishing new surveys requires considerable time, expertise and funding support. It also requires careful planning, documentation, monitoring and sustained follow-up.

2. In order to execute the timetable for work which has been proposed in this report for 1993/94, it will be necessary to careful plan activities and the allocation of staff time. It is also important that the Head of the Wages Sub-Division be free to devote his full attention to the improvement of the new SUB and planning of other wages surveys, especially in the first four months of 1993. DSP can play a key, complementary role in helping fund and assist new activities, such as the training of provincial and kabupaten staff and the planning of pre-pilot studies.

3. To successfully complete the design and execution of new wage surveys, the possibility of appointing staff to the new (foreshadowed) Wages Division with a background in economics or labour studies should be seriously considered. Although outside consultants may assist in the design of new surveys, their success will depend greatly on the capacity of BPS staff involved in their planning to understand and develop basic concepts and measures. This skill will be required in addition to the important need for competant statisticians, data analysts and programmers.

II. THE QUARTERLY WAGES SURVEY

A. Background: Major Issues and Problems

1. The new quarterly wages survey began as a fully fledged national survey in 1992, following design and fine tuning of the questionaire and survey methodology, and pilot surveys undertaken from 1989. In April/May 1992, a brief consultancy was undertaken to examine progress made in the new survey. The consultant's report identified several major issues which required immediate attention in order to raise both the quality of data and speed of reporting. [2] The major recommendations included (pp. 14-15 of the report):

   a. immediate actions to speed up reporting and improve data quality through communication with provincial offices, visits by BPS staff to several major regions and circulation of a supplementary set of explanations on filling in the questionaires.

   b. training of provincial and kabupaten staff.

   c. fine tuning of the questionaire for 1993/4.

   d. examination of factors affecting the speed of questionaire returns by the mantri statistik (mantis), the primary data collectors.

2. Speed of reporting was considerably improved in the second and third rounds of the survey in 1992, partly due to the improvements in the administration of the survey organised by the BPS Manpower Division and Wages Sub-Division. These initiatives included: distribution of a letter which stressed the importance of speed of reporting in SUB to all provincial offices, more timely delivery of questionaires, clearer guidelines for sample replacement and special training on the SUB questionaire (combined with the SAKERNAS/SUSENAS training) in Oct./Nov. 1992. No systematic action has been taken to attempt to speed up the return of questionaires by the mantis.

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[2] See Chris Manning, Notes on Wage Surveys, Statistical Paper #39, DSP II, 1992.

3. Efforts were also taken to **improve the quality of data** for execution of the survey in 1993 primarily through minor revisions to the questionaire and notes to the questionaire, and training of mantis and provincial staff on the SUB.

4. The availability of survey results for a significant share of the sample for quarters I and II 1992 have made it possible to examine the reliability of the survey, identify underlying causes of error and recommend further changes focussed on improving data quality which could be implemented by the first quarter 1993. The consultant acting on the advice of Dr. Alex Korns and staff the Manpower Division used these data as a starting point for examination of these problems. Discussions with the Wages Sub-Division staff and kabupaten and provincial officials in Bandung and West Java helped identify the major areas where action is urgently needed.

B. General Considerations

1. As a result of several meetings with staff from the planning agency (BAPPENAS) and Ministry of Manpower (DEPNAKER), the potential usefullness of the new SUB is now well understood. [3] However, in order to gain the confidence of key users in the survey results, the data need to be published on time and they must also be of high quality.

Targets. The target date for publication of the results in 1993 should remain three months from the date of data collection (May 15, August 15, November 15 and February 15). Regarding data quality, targets should also be established: no more than 5% of questionaires received by BPS should require special editing and and no more than 1% should have to be returned to any one region for checking/correction. **These targets are achievable, provided that systematic efforts are put in place immediately to**

[3] Meetings were held with key officials in BAPPENAS and DEPNAKER in April-May 1992 and again in November-December 1992.

improve the speed of reporting/editing and data quality.

In this context, it is important to keep the key objectives of the new SUB clearly in mind, and to remember the trade-off which it entails with the old SUB. The new survey offers urgently needed, more rapid reporting of non-agricultural wage data. It trades off (mengorbankan) considerable detail (of questionable quality) included in the old SUB for the promise of rapid reporting of high quality wage data. Although considerable progress has been made, both of these last two objectives have not yet been achieved to a sufficient degree. Based on the data returns for 1992, it would be difficult to to completely justify to key users (government and private sector, academics and the general public) the replacement of the old SUB with the new SUB.

2. It is most important that a **systematic approach** be taken to attempt to overcome the problems faced in improving data quality and speed of data reporting in the SUB. Although considerable progress has been made in 1992, these efforts **have tended to be piecemeal** (kurang sistematis), lack a clear vision of priorities and a specific timetable for action. To overcome this problem, I suggest that two factors are of major significance:

   a. It is critical that the Head of the Manpower Division in cooperation with the Wages Sub-Division Head set out a clear timetable for actions required to improve the SUB during 1993. This is necessary to ensure that priorities are established, and also that sufficient funds and personnel are allocated to the program.

   b. It will also be necessary that the Head of the Wages Sub-Division and his key staff devote their full attention to improving the data collection, editing and validation procedures for the new SUB over the next six months. The Head of Wages Sub-Division is in a critical position to provide leadership and guidance, and it is important that he is able to devote full attention to these activities. He is also in a position to greatly affect the outcomes because of his computing and data analysis skills. These are urgently needed for developing editing and validation procedures. It is also most important that these skills be passed on to staff and training his staff in use of softwear.

3. The **critical period** will be the months **December 1992 -**

April 1993. The data for 1992 are not of sufficiently high quality to be released publicly, although once edited they should be circulated on a restricted basis to key users (BAPPENAS and DEPNAKER). To ensure BAPPENAS and DEPNAKER support for the survey (and subsequent BPS wage surveys), it is most important that the data are published according to the planned time schedule for the first quarter in 1993. Every effort should by made to ensure that the survey is running smoothly by April 1993.

If shortage of funds is a major constraint to undertaking activities required over the next four months (see below), it is recommended that DSP assist with supplementary (seed?) funding of both training and the completion of urgently needed improvements to validation and editing procedures.

4. Continuing efforts will still be needed to overcome minor problems during 1993. A reasonable target would be that the survey, data editing, validation and analysis procedures and programs be set up to run smoothly - without the need for special efforts from BPS - by the first quarter in 1994.

5. A clearly established and well documented timetable and set of procedures for improving the new SUB is especially important because of the planned creation of a new Division of Wages. It is most essential that there be systematic documentation on completed and planned activities, bearing in mind that this is a new survey and that it is part of a general effort to provide an expanded data collection effort in this field.

C. Reliability of the Survey Data: Quarters 1 and 2 1992

1. Given the major innovations in concepts and data collection procedures, the results of the survey for the first two quarters in 1992 are encouraging, especially given that a high proportion of response errors can be attributed to a small number of causes.

2. The Sub-Division of Wages at BPS has still continued to encounter a high proportion (10-20%) of cases where questionaires were incorrectly filled in and a significant number of cases (around

time. Large variances are to be expected, but they should not obscure fundamental trends in average wages which the survey aims to capture. We deal with each of these issues in turn.

D. Overcoming errors in data reporting

1. **Ensuring that wage data are only reported for production workers below the level of foreman/technician.** The major problems of data quality identified above can be primarily traced to failure of the questionaire to ensure that wage data are reported for production employees below the level of foreman/technician only. The pre-pilot and pilot surveys indicated that the large majority of firms have no difficulty in clearly reporting wages of production workers below the level of foreman/technician, provided that the questionaire makes it quite clear that only this information is required. To ensure that these data alone are reported, it is necessary to add a question which requires firms to report the number of production and non-production workers as follows:

TOTAL NUMBER OF EMPLOYEES

NON-PRODUCTION	
Managerial	.....
Administrative	.....
Other	.....
PRODUCTION	
Professionals (engineers etc.)	.....
Supervisory including foreman	.....
Technicians/technical/highly skilled	.....
All other production workers below the level of the level of foreman/technician (including all unskilled and semi-skilled workers and machine operators)	[ ][ ][ ][ ]
ALL EMPLOYEES	[ ][ ][ ][ ]

It is essential that these data be reported from the first quarter of 1993. Since the questionaires have already been published, they should be recorded in a separate secion (BLOCK VI) attached to the questionaire. In 1994, this question would be

policies (for example employment of casual labour). [4]

(ii) There is **a systematic bias** in the execution of the survey **towards inclusion of higher skill groups** (production workers above the level of mandor) and even administrative, professional and managerial employees in the measure of average wages reported in a significant number (around 5-10 %) of enterprises. Examination of the questionaires for specific cases of high wages, and visits to several firms in the Bandung confirmed this tendency. The following patterns found:

a. The wages of a small number of monthly employees were much higher than average wages for the majority of workers paid on a weekly basis (**Example**: 59 out of a total of 448 [reported] production workers were paid on a monthly basis and earned average daily wages of Rp. 10500, compared with Rp. 2400 for workers paid on a weekly basis).

b. Average wages were higher than maximum wages (or very close to the maximum) (**Example**: Daily maximum wage Rp. 5000, average weekly wage Rp. 37000).

c. Average wages fell within the maximum-minimum wage but were still very high and the latter was implausibly large for production workers below the level of foreman/technician (**Example**: Average wages Rp. 45000 per week, minimum-maximum daily wage range Rp. 2100-11000).

4. In order to guarantee the publication of data which do not vary unpredic-ably across industries or regions and, over time (from quarter to quarter), two quite separate sets of issues need to be adressed. First, several steps are urgently need to overcome errors in data reporting and to ensure that the majority of these are identified at kabupaten and provincial level to speed up data processing. Second, it is necessary to ensure that the 'natural', underlying variance in wages by industry and region does not contribute to unexpectedly large variations in average wages over

[4] It is important to note that these variations in earnings are likely to be much greater than variations in wage rates. Indeed the greater responsiveness of earnings to labour market conditions is one important reason for choosing this measure rather than wage rates as the basic measure of wage change.

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TOTAL NUMBER OF EMPLOYEES

NON-PRODUCTION	
Managerial	.....
Administrative	.....
Other	.....
PRODUCTION	
Professionals (engineers etc.)	.....
Supervisory including foreman	.....
Technicians/technical/highly skilled	.....
All other production workers below the level of the level of foreman/technician (including all unskilled and semi-skilled workers and machine operators)	[ ][ ][ ][ ]
ALL EMPLOYEES	[ ][ ][ ][ ]

It is essential that these data be reported from the first quarter of 1993. Since the questionaires have already been published, they should be recorded in a separate secion (BLOCK VI) attached to the questionaire. In 1994, this question would be

incorporated into BLOCK III of the questionaire.

The number of production workers below the level of foreman/technician recorded in the above question should be consistent with (i) the total number of production workers reported in BLOCK III of the questionaire and (ii) the sum of all production workers reported for each wage system according to question IV 2a.

2. **Making more effective use of the KLP (Kartu Laporan Perusahaan).** KLP were designed and circulated to provincial offices in mid 1992. At present, however, the KLP appear to be relatively ineffective as an aid to editing and data validation. There are no guidelines for provincial and kabupaten officers to follow as a guide to errors in firm response, and officers have not been adequetely trained on use of the KLP. It is recommended that the KLP be redesigned and distributed to provincial offices for use **from the first quarter 1993.** A proposed, new KLP is contained in Annex 2 of this report. The main features of the new KLP are:

(i) Addition of information on the number of production workers to facilitate checking that wages are reported for this group only, and deletion of details on wage payments for overtime which are not useful for editing purposes.

(ii) Addition of a section which requires the regional officials to apply four editing/validation checks to the data included in the KLP.

(iii) Allocation of space on the form to allow regional officials/mantri to provide explanations of why data reported by particular establishments do not meet the editing/validation criteria, if the data contained in the questionaire are not in error (if the data are incorrect, the forms are returned to the mantri for correction).

A number of complementary activities are recommended to ensure that the KLP are used effectively:

(i) A set of instructions and explanations of the reasons for the new format (approximately 2-3 pages) should be sent to the provincial staffs with the new KLP.It is most important that the provincial staffs are aware of the systematic causes of error in reporting mentioned above, and that they communicate this information to kabupaten staffs and mantis.

(ii) Provincial staff should check KLP entries by kabupaten staff and keep records on the number of forms in which errors were overlooked, or explanations were not provided for responses that are inconsistent with the editing rules.

(iii) BPS staff should also check that the new form is understood by the provincial officers (visits to the Jakarta, West Java and East Java Statistics Offices would be extremely useful).

3. Addition of questions on number of employees and revisions to the KLP should overcome a high proportion of errors in reporting which have occurred in the first two quarters in 1992. Validation rules during data entry should also be adjusted to ensure that the above-mentioned errors in reporting are quickly identified (not all errors will be identified through the KLP). In addition to adding consistency checks similar to rules applied in the KLP, two further checks should be added at the point of data entry:

(i) A simple range check in which average wages should not exceed a specified maximum value and minimum wages not fall below a speci-fied minimum value (for example Rp. 10,000 per day maximum and Rp. 1000 per day minimum). These values would need to be updated annually to reflect labour market and cost of living changes (an annual adjustment of approximately 10% per annum would be appropriate.

(ii) Close scrutiny should be given to all cases where the number of employees paid on a monthly basis is a small proportion of all production workers (for example, less than 25%), and average wages are more than two times higher for monthly employees compared with weekly paid employees (or workers paid under other payment systems). In such cases, it is most likely that skilled or supervisory staff are included in the group of workers paid on a monthly basis.

E. Publication of the Survey Results

1. The considerable variation in average wages according to firm and indus-try characteristics has important implications for analysis and presentation of the survey findings. Individual outliers are likely to significantly influence mean results, especially in cases

of non-response and replacement,or undetected response error. Three implications flow from this. First, average median rather than mean wages are likely to be a more useful measure for detecting real change over time in particular regions and industries. Second, the degree of disaggregation of the tables needs to be carefully considered. It is recommended that considerable care be taken in reporting data in cases where the sample size is small. Data should not be reported for any province/industry group for which the sample is less than ten cases.

2. In Annex III a set of dummy tables which would form the core of the publication on average wages are presented. After examination of the data for quarters 1 and 2 1992, I suggest several revisions to the tables recommended in my previous report. The sample size does not permit some of the breakdowns previously recommended, median wages are recommended as the major indicator of wage change and several additional tables are also proposed. Specifically:

(i) A breakdown of average wages separately for most provinces and three digit industries, but no breakdown of wages by province and industry except by major province in Java and other island groups (Sumatera and Other)

(ii) Identification of BOTABEK and SUGESID (Surabaya, Gresik and Sidoarjo) as separate regions within Java. Each of these regions has more manufacturing establishments in the sample than Kalimantan, Sulawesi and Eastern Indonesia combined.

(iii) The data for the first two quarters in 1992 indicate that many establishments were unable to distinguish between overtime and normal hours earnings. The dummy tables recommended in Annex III no longer make this distinction.

(iv) Tabulations by size of firm (number of employees), year of establish-ment, firm type (ownership status) and proportion of female emplo-yees are all valuable tables which can be produced from the survey.

(v) Two kinds of basic tables are recommended:
- a table which shows the number of firms, number of employees, mean and median monthly wages for the quarter for which data are collected

- a table which shows trends in real wages for the previous four quarters and annually for years prior to the current year.

3. It is recommended that all the dummy tables proposed in Annex III be tabulated for the all 4 quarters of 1992 and preliminary analysis be made of these tables before finalising the table formats to be published in 1993.

F. Sampling

1. The sample for the new SUB was chosen from the 1989 L&M Industry Directory. **The sampling procedure is heavily biased in favour of larger establishments.** All larger L firms above a minimum cut-off point, and a disproportionate share of larger M firms, were included in the sample. [5] Just over 60 percent of all medium establishments in the sample were in the size category 50-99 workers and just under half of large establishments in the category 500 workers or more (Table 1). This compares with just over 20 percent of all firms in the population in each of these size categories for both M and L firms respectively.

Smaller firms were under-represented in terms of number of establishments and also in terms of number of workers (Table 1). This was especially true of smallest firms with less than 50 employees, and it was also applied to smaller establishments (100-499 workers) in the L category.

[5] The sample of manufacturing establishments included in the survey was quite small (1600 or approximately 10 percent of all L&M establishments). Production rather than number of employees was the main criteria used in selecting firms for 1992.

Table 1
Sample and Population Characteristics, SUB 1992/Industry Directory 1989

Number of Employees	% of Establishments		% of Employees	
	Sample	Population	Sample	Population
< 50	23	56	2	10
50 - 99	36	17	7	7
Sub total	59	73	9	17
100 - 499	22	21	12	28
500 +	19	6	79	54
Sub total	41	27	91	82
Total	100	100	100	
N	1214		455805	2662674

2. For the 1994 survey, the sampling procedure should be adjusted to more realistically to at least reflect the size distribution of employees in different sized establishments in the population. The updated 1991 or 1992 Industry Directory should be used for selecting a new sample. The number of firms in each size category is not an appropriate criteria, since it ignores the high proportion of total employees represented in larger establishments. But the number of employees in each size category is also inappropriate since it gives too much weight to the higher wage, larger establishments in the sample. [6] A compromise solution would involve including both number of establish-ments and number of employees in each size category by major industry and region as criteria for stratifying the sample. Certainly more careful consideration needs to be given to the sampling procedure than was the case for the 1992 round of surveys. It would be appropriate to obtain the advice of a sampling expert such as Vijay Verma in selecting the sample for 1994.

3. Because of a systematic tendency for larger establishments to pay higher wages - after controlling for industry and region (see

[6] In practical terms the latter procedure is also not desirable because larger firms are generally more difficult to cover.

Tables 3 and 4) - it is important that the final results are weighted by number of employees in each size category (by industry and region) to ensure against an upward bias in the level of wages reported. It is appropriate that the final results be weighted by the number of employees rather than by the number of establishments in the population represented in each cell. **Tabulations in which the data are weighted by number of establishments rather than number of employees should also be prepared however.** For worker welfare, the number of employees is the relevant weight. But for monitoring purposes by DEPNAKER and other agencies, the number of establishments is likely to be of greater relevance. This is true also of analysis which is concerned with the determinants of wage differentials and takes the firm as a decision-making unit, regardless of size.

G. Monitoring Quality and Speed of Response

1. It is important that a more systematic effort be made to monitor the progress of the SUB in each quarter, in order to ensure improvement in the quality of reporting and continued improvement in the speed of firm response. At present, the only indicator of performance readily available is the number of questionaires returned to BPS for each quarter of the survey in each month. This gives no guide to data quality. It is also not a very useful guide of effective speed in terms of meeting publication targets, given the need to edit and return quite a high proportion of questionaires to the regions. It is important to bear in mind that it will be difficult to identify major problems and make necessary improvements unless a more systematic effort is made at monitoring.

2. Several additional indicators of performance could be introduced at relatively little cost. The Head of the Manpower Division and Wages Sub-Division would be able to use these as a measure of progress in both the quality and speed of reporting over time and across regions in Indonesia. The following indicators

are recommended:

(i) The proportion of KLP for which responses do not meet the consistency check criteria, and for which there is no explanation given for responses which are inconsistent with the criteria established in the KLP. These data should be reported regularly to BPS by the provincial office, preferably two months after questionaires have been distributed for a particular quarter and again after all questionaires have been returned for a particular quarter (the most appropriate procedures should be worked out by the Head of the Wages Sub-Division in consultation with provincial offices).

(ii) The number of questionaires requiring editing at BPS and the major errors in reporting. It would be extremely useful if the Wages Sub- Division could keep records - prefarably computerised - by province which are evaluated at the end of each quarter and reported back to the regional offices. Records should also be kept of the number of questionaires which have to be returned to the province for checking.

(iii) To be more effective, the speed of reporting each month should be calculated in terms of the **average lag in delivery of questionaires in terms of months** (no lag being defined as all questionaires returned within one month). [7] Since it takes account of the delay in reporting in questionaires that have already been submitted, this statistic is more useful than simply recording the proportion of questionaires returned by a particular date.

3. Variations in the speed of response vary substantially by kabupaten/kotamadya in particular provinces. In West Java, for example, the Kabupaten Bogor and Kotamadya Bandung lagged substantially behind other regions in reporting data for all three quarters. Monitoring should be undertaken by kabupaten/kotamadya at the province level and reported to BPS, especially for kabupaten/kotamadya where a high proportion of the sample is concentrated. This is especially important if effective steps are to be taken to identify the causes of delays in reporting and remedy these.

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[7] For example, if after three months, out of 100 questionaires 10 were returned within one month, 40 more within 2 months, 30 more within 3 months, and the remaining 20 within 4 months, the average lag would be 1.6 = ([10 x 0] + [40 x 1] + [30 x 2] + [20 x 3] /100).

III. SURVEYS OF WAGE STRUCTURE

A. General

From meetings with DEPNAKER and BAPPENAS staff it was agreed that **three surveys of wage structure might be undertaken each year:** two regular surveys and one special survey. The major gaps which need to be filled through regular surveys are (i) a survey of regional wage differentials and (ii) a survey of occupational wage differentials. Following piloting and pre-tests of questionaires, a plausible target date for the beginning of these surveys would be 1995.

B. Regional Wage Differentials

1. A Survey of Regional Wage Differentials is needed to fill a major gap in coverage of wages across all provinces in Indonesia. The major objective of a regional wage survey would be to determine regional variations in the level and change in wages of relatively homogeneous occupations. Occupations chosen should be those which reflect general changes in regional labour market conditions rather than changes in occupational wages owing to industry specific developments in a particular region. Wages in relatively unskilled/semi-skilled activities which are common in all regions are likely to be the most useful measure of such changes. Owing to the uneven spread of manufacturing establishments across regions, the SUB cannot provide a reliable measure of provincial wage differentials and change.

2. **Sectoral Coverage.** The most appropriate sectors for a regional coverage of non-agricultural wages are are construction and services which are common in all provinces in Indonesia and relatively homogeneous. (neither of these characteristics applies to most manufacturing industries). Selected service activities are more appropriate than construction for a survey of regional wage differentials. While the construction sector is attractive because of occupational homogeneity, collection of reliable wage data on a regular basis would be hampered by two problems. First, owing to

the instability of employment in construction activities, it would be very difficult to construct an operational sampling frame which could be used each year. Second, actual wages paid to workers are difficult to determine owing to the practice of payments being made on a discretionary basis by the foreman (mandor) of construction teams.

3. **Occupational Coverage.** Service activities which are common throughout Indonesia are trade, transport, hotels, restaurants and personal services (especially household servants). Occupations in several of these activities are not appropriate for a regular wages survey. The most common transport occupations - drivers and their assistants - are not appropriate for a regular wages survey because of the difficulty of computing earnings usually calculated on a share or percentage basis. Also, in these occupations there is often considerable variation in earnings from month to month. The wages of household servants are difficult to compute because of the substantial share of wage incomes earned in kind (food, board, etc.). The earnings of hotel employees vary substantially according to size and type of establishment (star rating, foreign/state/private owned), and vary according to bonuses paid on a monthly basis in larger hotels.

4. The remaining occupations which should be investigated for inclusion in a survey of regional wage differentials are shop assistants, (Pertamina) petrol station attendants, waiters/waitresses and travel/bus company ticket officers. Although the nature of wage systems in these occupations needs to be investigated, in most cases wages are paid on a time basis (weekly or monthly), do not indicate large variations according to seniority and do not vary substantially over time. The tasks performed are relatively uniform. It should be possible to choose a relatively homogeneous sample of establishments in each region. Restaurants and petrol stations are relatively uniform in size. Shops could include department stores and smaller retail shops with 5-10 employees. Approximately a total of 30-100 establishments might be chosen in

major cities and towns in each province.

C. Occupational Wage Differentials

1. Both the SUB and the above mentioned survey of regional wage differentials are primarily designed to examine labour market structure and change for relatively unskilled labour. There is a major need to supplement this information with data on wages of skilled and professional labour for the purpose of monitoring needs for foreign personnel, wage spread and inequality within enterprises, and also for manpower planning purposes.

2. **Occupational Coverage.** Such a survey should concentrate on specific occupations which are common to a large number of industries. Possible occupations to be covered are managers (general, marketing, financial), engineers (mechanical, chemical), secretaries, accountants, book-keepers, analysists and machinists in manufacturing, and possibly a several key occupations in banking. The final list would be determined as a result of pre-pilot and pilot surveys. Data on wages of relatively unskilled/semi-skilled occupations (machine operators and general labourers) would also also be collected to facilitate analysis of wage spread.

3. **The Establishment Sample.** The survey would be most efficient if it was restricted to several key and relatively homogeneous industries such as textiles (weaving, spinning and finishing, garments), plywood, printing, pharmaceuticals, and vehicle components and assembly. Since it could be expected that there is a fairly well integrated national labour market for many of these occupations, the survey should be concentrated in major producing areas only: Jakarta, West Java, Central Java, East Java, North Sumatera, and Kalimantan (for plywood). Also, since a range of clearly defined skilled occupations would only be represented in larger establishments, the survey should only cover establishments with a minimum of 500 employees or more. Owing to problems of collecting comparable wage data for more skilled employees across firms and industries, the survey would take more

time to administer than the SUB or regional wage surveys and **the total sample should not be larger than 500 establishments.** Because the questionaire would take some time to fill in and would require careful explanation to personel managers, considerable effort will be needed to gain the support of the sample establishments for participation in the survey.

4. **The Questionaire and Data Required.** The questionaire would need to include information on basic wages and the monetary value of regular fringe benefits such as transport, housing and annual bonuses, since these are likely to vary substantially across establishments. The survey would collect data on maximum and minimum wages in each occupation for workers who have been employed a minimum duration with the firm (for example a minimum of one years service). In order to facilitate analysis and standardisation of employee characteristics, some basic data on characteristics of employees earning minimum and maximum wages should also be collected (for example, age, years of service, education and gender).

D. Special surveys

Special surveys would be designed according to user needs and could cover specific occupations, industries or segments of the labour market. They are likely to not only cover wages but a range of issues related to employment contracts and conditions. For example, they might cover issues such as the shortage of manpower in specific industries such as banking, loss of certain categories of professional manpower from the public sector to the private sector, or the payment of minimum wages in key export oriented industries such as garments or footwear. These surveys would require considerable inputs from DEPNAKER and technical departments in design and planning. Planning of such surveys might only considered after the two surveys recommended above have been designed and are running smoothly.

E. Implementation

1. It is recommended that BPS begin to plan, pre-pilot and pilot the regular annual surveys in financial year 1993/94 (in accordance with the time schedule already set out by the Head of the Manpower Division). Since both BAPPENAS and Ministry of Manpower staff have agreed to the initiation of such surveys, it is recommended that these agencies be involved again in discussions of surveys of wage structure only after the pre-pilot studies have been undertaken in 1993-4.

2. A team should be set up to plan the pre-pilot studies of wage structure in services and large establishments consisting of the Head of the Manpower Division and Wages Sub-Division, and Dr. Alex Korns, in cooperation with an outside consultancy agency. The Labour Research Unit at AKATIGA under the leadership of Mr. Juni Thamrin would be an ideal consultancy and implementing agency. AKATIGA has considerable experience in collecting wage and employment data at the enterprise level. However, since AKATIGA has relatively little experience in working with BPS data and surveys, it would need to be carefully guided by BPS staff in the planning and execution of pre-pilot studies. Planning of the pre-pilot would begin in April 1993.

IV. FOLLOW-UP

This report has suggested a specific timetable for improvements to the SUB and for execution of surveys of wage structure. DSP has budgetted for one more visit by this consultant to assist BPS with wage surveys. It is recommended that this visit take place in May/June 1993 with two major objectives:

(i) Evaluation of progress with SUB in 1992/3 and analysis of data from the SUB for each quarter in 1992. To facilitate a final report on improvements to the SUB, the Wages Sub-Division/Manpower Division should prepare a report on progress to the first quarter 1993 and the consultant could provide an evaluation

of these developments. The consultant could also provide an evaluation of the data for each quarter in 1992. These data should be tabulated by the Wages Sub-Division according to the dummy tables attached to this report. These data and the general report on progress with the SUB should be sent to Canberra prior to the consultant's visit to BPS. The consultant would examine the report and data, and make final recommendations with respect to editing and presentation of survey findings during his visit.

(ii) Planning of Pre-Pilot Studies of Wage Structure: The first drafts of the questionaires for the pre-pilot studies should be completed prior to the consultant's visit, and the consultant would work closely with BPS staff and planned executing agencies (AKATIGA or other bodies) in helping fine-tune the draft questionaire and in the design of the surveys. It would be useful if the consultant could participate in several pre-pilot visits to establishments to test the questionaire, and could offer some preliminary advice based on these visits regarding the questionaire and proposed survey design.

ANNEX I
PRELIMINARY RESULTS OF THE QUARTERLY WAGES SURVEY, 1992

Table I-1
Means and Median Wages by Industry, Quarter I 1992

Industry		Mean (000)	Median	SD	Number of	
					Establishment	Worker (000)
31	Food	24.06	19.791	15.05	326	110.80
32	Textile	25.17	21.714	13.83	260	127.25
33	Wood	31.91	27.079	15.65	147	78.55
34	Paper	32.55	28.504	17.95	66	16.88
34	Chemical	28.08	24.240	15.40	137	66.23
35	Non metalic	20.00	16.080	12.98	140	17.01
37/38	Metal	32.57	26.145	19.50	106	32.70
39	Other	26.83	25.591	14.76	32	6.38
64	Hotel	34.02	29.963	16.39	262	20.61
	Total	27.85		16.13	1476	476.42

Table I-2
Means and Median Wages by Province, Quarter I 1992

Province/ Island Group	Mean (000)	Median	SD	Number of	
				Establishment	Worker (000)
Jakarta	33.25	27.935	17.80	75	13.39
Jabar	29.63	24.656	16.76	344	124.38
Jateng/Yogya	20.52	17.261	11.71	339	83.93
Jatim	26.25	22.824	13.87	303	128.97
Sumatra	33.13	28.127	17.93	199	70.26
Lainnya	32.00	27.807	17.29	216	55.48
Total	27.85		16.13	1476	476.42

Table I-3
Mean and Standard Deviation of Weekly Wages,
Number of Establishments and Employees
by Size of Establishment,
Quarter I 1992

Size of Establishment	Mean	Standard Deviation	Number of Establishments	Number of Employees
< 25	25.77	11.73	113	1935
25 - 49	24.30	13.52	279	10274
50 - 99	25.79	14.72	522	37194
Subtotal	25.33	14.02	914	49403
100 - 199	29.40	17.35	211	28408
200 - 499	31.65	18.83	117	36276
500 - 999	34.44	19.20	89	65302
1000 +	34.35	18.52	145	297027
Subtotal	31.94	18.35	562	427013
Total	27.85	16.13	1476	476416

ANNEX II
REVISED DRAFT OF KLP
(KARTU LAPORAN PERUSAHAAN
- ESTABLISHMENT RECORD FORM)

((0))

SURVEI UPAH BURUH
KARTU LAPORAN PERUSAHAAN
(Dikerjakan di KS Kab/Kodya)

Nama Perusahaan : **Kode Perusahaan :**
Produksi Utama :

	Triwulan				
	IV	I	II	III	IV
1. Jumlah seluruh karyawan produksi (Blok VI, rincian ?)					
2. Upah terendah per ..... (Blok II, rincian 4a)					
3. Upah terendah per hari					
4. Upah tertinggi per ..... (Blok II, rincian 4b)					
5. Upah tertinggi per hari					
Sistem Pembayaran I (.....)					
6. Jumlah hari kerja biasa (Blok IV, rincian 1b)					
7. Jumlah karyawan produksi (Blok IV, rincian 2a)					
8. Jumlah upah/gaji (Rp.000)(Blok IV, rincian 3e)					
9. Upah karyawan rata-rata (8 ÷ 7) x 1000					
10. Upah karyawan rata-rata per hari (9 ÷ 6)					
11. Perubahan upah (10) dibanding triwulanan y.l.(%)	x x x x x x				
Sistem Pembayaran II (.....)					
12. Jumlah hari kerja biasa (Blok IV, rincian 1b)					
13. Jumlah karyawan produksi (Blok IVm rincian 2a)					
14. Jumlah upah/gaji (Rp.000) (Blok IV, rincian 3e)					
15. Upah karyawan rata-rata (14 ÷ 13)					
16. Upah karyawan rata-rata per hari (15 ÷ 12)					
17. Perubahan upah (16) dibanding triwulanan y.l.(%)	x x x x x x				
Pengecekan/Validasi (Isikan Ya atau tidak untuk setiap triwulan) 1. Upah tertinggi (5) tidak lebih dari 3x upah terendah (3)					
2. Upah karyawan rata-rata per hari (10, 16) kurang dari upah tertinggi (5) tidak lebih dari upah terendah (3)					
3. Perubahan upah karyawan rata-rata per hari (10, 16) pada satu triwulan tidak lebih dari 20%	x x x x x x				
4. Jumlah TK pada butir 1 sama dengan jumlah pada butir 7 & 13					

KETERANGAN TAMBAHAN UNTUK KLP

BILA SALAH SATU BUTIR PENGECEKAN/VALIDASI DIISI TIDAK, BERIKAN TANDA [✓] UNTUK ALASAN YANG BERLAKU :

ISIKAN

TANDA [✓]

1. Upah teringgi lebih dari 3 kali upah terendah

   Upah jauh lebih tinggi untuk karyawan senior [ ]
   Upah jauh lebih tinggi untuk pekerja . . . . . (ISIKAN) [ ]
   Lain . . . . . (SEBUTKAN) [ ]

2. Upah rata-rata lebih dari upah tertinggi *

   Upah maximum tidak termasuh tunjangan . . . . . (SEBUTKAN) [ ]
   Lembur sangat tinggi [ ]
   Lain . . . . . (SEBUTKAN) [ ]

3. Upah rata-rata kurang dari upah terendah *

   Jam kerja dikurangi/kurang dari biasa [ ]
   Lain . . . . . (SEBUTKAN) [ ]

4. Upah rata-rata lebih dari 20% lebih **tinggi** dari triwulan sebelumnya

   Kenaikan upah lebih dari 20% sejak survey triwulan y.l. [ ]
   Lembur tinggi triwulan ini [ ]
   Jam kerja lebih banyak triwulan ini
   Lain . . . . . (SEBUTKAN) [ ]

5. Upah rata-rata lebih dari 20% lebih **rendah** dari triwulan sebelumnya

   Lembur jauh lebih banyak pada triwulan y.l. [ ]
   Jam kerja lebih sedikit triwulan ini [ ]
   Lain . . . . . (SEBUTKAN) [ ]

* Untuk perbandingan antara upah terendah/tertinggi dan upah rata-rata, pakai rumus sebagai berikut :-

Bila upah terendah/tertinggi dihitung harian, sedangkan upah rata dihitung
a. Mingguan : Kalikan upah terendah/tertinggi dengan jumlah hari kerja minggu pembayaran
b. Bulanan : terendah/tertinggi dengan 26

ANNEX III
DUMMY TABLES FOR PUBLICATION OF SUB RESULTS

Table III-1
Number of Establishments and Production Employees
by Large and Medium Size Category and Industry, Sample Firms 1992.

Industry	Large		Medium	
	No. of Establishments	No. of Employees	No. of Establishments	No. of Employees
Manufacturing 31 Food . . . . 32 . . . . . 39 Hotels Mining				
Total Sample				

Table III-2
Number of Establishments and Production Employees by Major Manufacturing Industry and Province/Island Group, Sample 1992

Manufacturing	Java				Outer Islands				Indo-nesia
	DKI Jkt	West Java	C.Java/ Yogya	East Java	N.Su-matra	Other Sumatra	Kali-mantan	Other Provinces	
No. of Establishments 31 Food ... 32 39									
Total Sample									
No. of Employees 31 Food ... 32 39									

Table III-3
Average Weekly Earnings of Production Workers
Below the Level of Mandor in Manufacturing, Hotels and Mining, 1992

	Sector of Activity		
	Manufacturing	Hotels	Mining
Mean Earnings March June September November			
Median Earnings March June September November			

Table III-4a
Number of Establishments and Employees, Mean and Median Earnings
by Major Industry in Manufacturing

Industry	No. of Establish-ments	No. of Employees	Mean Earnings (Rp.000)	Median Earnings (Rp.000)
31 Food 32 39				
All Industries				

Table III-4b
Mean and Median Earnings by Industry in Manufacturing

Sector of Activity	March	June	Sept.	Nov.
Mean Earnings				
31 Food				
32				
.				
.				
.				
39 Other				
All Industries				
Median Earnings				
31 Food				
32				
.				
.				
.				
39 Other				
All Industries				

Table III-5a
Number of Establishments and Employees, Mean and Median Earnings by Major Three Digit Industry Group, 1992

Industry	Number of Establish-ments	Number of Employees	Earnings (Rp.000)	
			Mean	Median
31 FOOD				
311 Basic foods				
312 Processed food				
314 Tobacco/cigarettes				
Other Food				
32 TEXTILES				
321 Basic textiles				
322 Clothing				
Other Textiles				
33 WOOD				
331 Processed timber				
332 Furniture				
34 PAPER/PRINTING				
342 Printing				
Other Paper				
35 CHEMICALS/RUBBER				
355 Rubber				
356 Plastics				
Other Chemicals				
36 NON-METALLIC MINERALS				
363 Cement/limestone				
364 Bricks/tiles				
Other Non-Metallic Minerals				
37/38 METALS				
39 OTHER				
ALL INDUSTRIES				

Note : Only sellected. 3-digit industries

Table III-5b
Median Earnings by Major 3-Digit Industry

Industry	Median Earnings (Rp.000)			
	March	June	Sept.	Nov.
31 FOOD				
311 Basic foods				
312 Processed food				
314 Tobacco/cigarettes				
Other Food				
32 TEXTILES				
321 Basic textiles				
322 Clothing				
Other Textiles				
33 WOOD				
331 Processed timber				
332 Furniture				
34 PAPER/PRINTING				
342 Printing				
Other Paper				
35 CHEMICALS/RUBBER				
355 Rubber				
356 Plastics				
Other Chemicals				
36 NON-METALLIC MINERALS				
363 Cement/limestone				
364 Bricks/tiles				
Other Non-Metallic Minerals				
37/38 METALS				
ALL INDUSTRIES				

Table III-6a
Number of Establishments and Employees, Mean and Median Earnings in Manufacturing by Province/Region

Region	Number of Establish-ments	Number of Employees	Earnings (Rp.000)	
			Mean	Median
North Sumatera				
Other Sumatera				
DKI Jakarta				
West Java				
BOTABEK [8]				
Kab/Kodya Bandung				
Other West Java				
Central Java/Yogya				
East Java				
SUGRESID [9]				
Other East Java				
Bali				
Kalimantan				
Sulawesi				
Other Eastern Indonesia				
ALL INDONESIA				

[8] Bogor - Tangerang - Bekasi

[9] Surabaya - Gresik - Sidoardjo

Table III-6b
Median Earnings in Manufacturing by Province/Region

Region	Earnings (Rp.000)			
	March	June	Sept.	Nov.
North Sumatera				
Other Sumatera				
DKI Jakarta				
West Java				
BOTABEK				
Kab/Kodya Bandung				
Other West Java				
Central Java/Yogya				
East Java				
SUGRESID				
Other East Java				
Bali				
Kalimantan				
Sulawesi				
Other Eastern Indonesia				
ALL INDONESIA				

Table III-7
Median Wages by Province and Major Industry in Manufacturing

Region	Industry						All Industry
	31 Food	32 Textiles	33 Wood	34-35 Chemicals/ Paper	36-38 Metals/ Mach.	24 Other	
North Sumatera							
Other Sumatera							
DKI Jakarta							
West Java							
BOTABEK							
Other W. Java							
Central Java/Yogya							
East Java							
SUGRESID							
Other E. Java							
Other Provinces							
All Indonesia							

Table III-8
Median Wages in Hotels by Major Region

	Median Earnings (Rp.000)			
	March	June	Sept.	Nov.
North Sumatera				
Other Sumatera				
DKI Jakarta				
West Java				
Central Java/Yogya				
East Java				
Bali				
Kalimantan				
Sulawesi				
Other				
All Indonesia				

Table III-9a
Number of Establishments and Employees, Mean and Median Earnings by Major Industry in Manufacturing, Medium and Large Establishments

Size Group/ Industry	No. of Establishments	No. of Employees	Earnings (Rp.000)	
			Mean	Median
Medium 31 Food 32 . . . 39 Other				
All Medium				
Large 31 Food 32 33 . . . 39 Other				
All Large				
All Industries				

Table III-9b
Median Earnings by Major Industry in Manufacturing, Medium and Large Establishments

	Median Earnings (Rp.000)			
	March	June	Sept.	Nov.
Medium 31 Food 32 . . . 39 Other				
All Medium				
Large 31 Food 32 33 . . . 39 Other				
All Large				
All Industries				

Table III-9c
Number of Establishments and employees, Mean and Median Wages in Major Manufacturing Industries by Number of Employees

Industry/ Province Group	Number of Employees < 50	50-99	100-499	500 +	All Establishments
No. of Establishments 31 Food 32 . . . . . 33 . . . . . 34/35 . . . . 39 Other					
Total					
No. of Employees 31 Food . . . 39 Other					
Total					
Mean Earnings (Rp.000) 31 Food 32 . . 39 Other					
All Industries					
Median Earnings (Rp.000) 31 Food 32 . . . . 39 Other					
All Industries					

Note : Industries 34 and 35, 36 - 38 combined.

Table III-10
Number of Establishments and employees, Mean and Median Wages in Major Manufacturing Industries By Year of Beginning Operations

	Year Begin Operations			All Establishments
	Before 1980	1980-1984	1985 +	
No. of Establishments 31 Food 32 . . . . . 33 . . . . . 34/35 . . . . 39 Other				
Total				
No. of Employees 31 Food . . . 39 Other				
Total				
Mean Earnings (Rp.000) 31 Food 32 . . 39 Other				
All Industries				
Median Earnings (Rp.000) 31 Food 32 . . . . 39 Other				
All Industries				

Note : If the 1991 or 1992 Directory is used, the breakdown might include 1980-1987, 1988 +

Table III-11
Number of Establishments and employees, Mean and Median Wages in Major Manufacturing Industries by Type of Ownership

	Firm Type				All Establishments
	PMDN	PMA	Negara	Other	
No. of Establishments 31 Food 32 . . . . . 33 . . . . . 34/35 . . . . 39 Other					
Total					
No. of Employees 31 Food . . . 39 Other					
Total					
Mean Earnings (Rp.000) 31 Food 32 . . 39 Other					
All Industries					
Median Earnings (Rp.000) 31 Food 32 . . . . 39 Other					
All Industries					

Note : Industries 34 and 35, 36 - 38 combined.

Table III-12
Number of Establishments and employees, Mean and Median Wages in Major Manufacturing Industries By Share of Female Production Workers

	% of Female Production Workers			All Establishments
	< 25	25-49	50 +	
No. of Establishments 31 Food 32 . . . . . 33 . . . . . 34/35 . . . . 39 Other				
Total				
No. of Employees 31 Food . . . 39 Other				
Total				
Mean Earnings (Rp.000) 31 Food 32 . . 39 Other				
All Industries				
Median Earnings (Rp.000) 31 Food 32 . . . . 39 Other				
All Industries				

The Survei Upah Buruh : A Final Report

Statistical Paper # 50

by
Chris Manning
May 1994

(DSP # 207)

Table of Contents

1 Introduction and Summary

1.1 This is the final of four reports by this author on visits to help design and implement new wages surveys in Indonesia. This report deals exclusively with the new wages survey or the *Survei Upah Buruh* (SUB). Indonesia will need additional wages surveys in the future to provide detailed information on wage structure and trends by occupation, industry and region. However, the *Survei Upah Buruh* should become the single most important indicator of non-agricultural wage trends in Indonesia over the next decade. Speedy publication of survey data on wage trends on a regular basis is especially required given the importance of minimum wages in the national policy agenda. In 1994-1995, the pressing need is to ensure that this survey delivers in terms of quality and timeliness. This consultancy in January 1994 was undertaken to help achieve that goal.

1.2 The SUB was designed in 1989-1990, piloted in 1990-1991 and executed on a national scale for the first time in 1992. A new sample was designed and the survey implemented with the new sample from the second quarter in 1993. It became clear that BPS had still not solved the problem of data quality in SUB when in late 1993 an intensive editing effort was undertaken on returned questionnaires from the SUB for four quarters in 1992. This report deals with an evaluation of these data problems and recommendations to overcome them. Speed and timeliness of reporting is still an important issue and will need to be addressed if the important goal of quarterly publication of wage data is to be achieved. But the major issue in early 1994 was how to improve data quality.

Several major improvements have been undertaken and several more are recommended as a result of work undertaken or planned during the consultancy. The key instruments of the survey (the questionnaire and the enterprise report card, *Kartu Laporan Perusahaan,* KLP) have been revised. The entire reporting and validation systems have also been reviewed and recommendations made for improvement. A program of training of field staff and Statistical Office personnel is also planned.

These changes and recommendations are based on field trips undertaken in Jakarta and Bekasi (West Java), intensive discussions with all the Heads of the Social and Demographic Sections of the Provincial Statistics Offices in Java, and thorough reviews of problems and progress with staff of the Wages Section at BPS. This work has been undertaken in close cooperation with the staff of the Wages Section under Mr. Suharno and with the DSP consultant to BPS, Dr. Alex Korns.

1.3 The major goal established during this consultancy was that BPS should aim to publish the results of the SUB on a quarterly basis from the third quarter of 1994. These data should be published no later than December 1994, and subsequent SUB data made available to key users no later than three months after data collection, and published no later than four months after data collection.

1.4 The design and execution of a new wages survey has taken much longer than was envisaged when this work began in 1989. This is partly because the task of collecting accurate wage data is inherently difficult. But it is partly also because the design and execution of the new SUB is highly innovative and charts new waters for BPS in data reporting and validation systems.

The complete revision of the SUB represents one of the major innovations in BPS over the past decade. It is an important innovation because the survey requires high quality data to be reported promptly from a quite large sample of establishments throughout Indonesia. This is not an easy task. The combination of speedy reporting and high quality data is particularly demanding. Several innovations, including validation programs and the KLP, have already been introduced with the SUB. If successful, the experience of SUB will be an excellent example of adapting data provision to the changing needs of the government and society, and to the changing structure of the economy .

1.5 Despite the very considerable effort on the part of BPS and staff of the Wages Section to introduce a new SUB, both concentrated effort through 1994 and sustained attention to quality and timeliness are needed to achieve this goal. Most importantly, there still needs to be greater awareness of the significance of on-going, sustained efforts in data collection.

The Wages Section of BPS has played a major role in supporting introduction and execution of the survey and has progress has also been helped through the backing of senior officials in BPS. However, concentration of efforts, staff attention and time are required over longer time periods: efforts have tended to be sporadic, and intensive efforts have tended to coincide with the lead-up to and follow-up from this consultant's visits over the past two years. The reasons for this pattern of activity are no doubt complex, and can be related to matters beyond the control of individual officers.

If the new SUB is to be successful, it is absolutely essential that focus on issues of high data quality and timeliness of reporting in SUB be retained within BPS over the next 18 months. The necessary requirement is the full involvement and attention of the Head of the Wages Section and his senior staff to the execution of the survey, data validation and analysis. This is a sensitive issue and involves several fundamental organisational matters which are beyond the terms of reference of this consultancy.[1] If this involvement cannot be maintained, there is a high possibility that the survey will provide no better data than its largely discredited predecessor, the old *Survei Upah Buruh* which was discontinued in 1992.

Not only would very promising attempts to design a valuable new survey be wasted. Indonesia would continue to have no reliable source of non-agricultural wage data for planning and policy design. The innovative methods which have been tested and begun to be introduced through the new SUB would also be lost to BPS. It would also mean that attempts to innovate and turn innovation into systemic change have not been successful.

1.6 The author of this report is confident that the final goal of provision of high quality wage data can be achieved by BPS in the near future. The staff and leadership of the Wages Division has demonstrated considerable ingenuity and dedication to the achievement of this goal. Data collection methods and validation procedures have been carefully designed and tested. The necessary support and administrative procedures have also been reviewed. The final essential ingredient is a commitment on the part of senior decision-makers within BPS to the collection of high quality wage data, and a recognition that timely and sustained effort is required to achieve this goal.

1.7 This report is divided into four sections. The second restates the major goals of the SUB and the key contribution which it can make to labour force statistics in Indonesia. The third deals with pressing problems of data quality in the SUB as revealed in editing and analysis of the 1992 results, and field trips to enterprises. The fourth describes the innovations which are recommended and have already been introduced to overcome these problems.

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[1] At least two major matters would seem to be important. The first is the level and structure of renumeration and other incentives associated with division and sub-division chief responsibilities within BPS. The second (partly related to the first) is the degree to which division and sub-division heads have an incentive, or are encouraged (or even required) to undertake tasks beyond their major responsibilities in the division. The latter matter is especially important for the allocation of the time to urgent (and sometimes unexpected) tasks associated with particular projects/surveys undertaken by the division.

2 The Importance of the Wages Survey

2.1 When the revision of Indonesia's major wages survey (SUB) began in 1989, wage data were regarded as important by labour force planners but were not high on the national agenda. Five years later the situation has changed markedly. There is now a recognised national need for accurate wages data which can be accessed by government planners and policy makers, employers, unions and academics. Debates regarding wage levels and trends now play an important part in the national policies and discourse regarding Indonesia's development priorities and record, and progress in the sensitive areas of labour welfare and rights.

The level of non-agricultural wages in particular has become an important issue in national development. It will become increasingly important as the economy continues to be transformed from its agricultural base and as the share of wage employees rises. The considerable attention to minimum wages by the government and society in general is one example of the growing importance of wage issues in Indonesia in recent years. An informed and viable minimum wages policy depends crucially on reliable and up-to-date data on wage trends. This is well recognised by major decision makers in BAPPENAS and DEPNAKER.

The main issues of policy focus are:-

(i) the level and trends in wages relative to the government official minimum wage and the minimum physical needs (KFM)

(ii) trends in Indonesia's relative competitiveness in terms of wage costs compared with other countries

(iii) trends in wage incomes and their relationship to efforts to overcome poverty

(iv) short-term fluctuations in labour demand and their impact on wages and welfare of workers.

SUB can make a significant contribution to understanding developments regarding all of these problems. Importantly, there is no other source of data in Indonesia which is designed for this purpose.

2.2 SUB provides the only data on non-agricultural earnings from establishments in Indonesia. This means that detailed tables can be provided on the level of wages by industry, region and firm-type, to identify which are the high and which are the low wage pockets of the work force.

The data from SUB complement but do not overlap with data collected in the National Labour Force Survey, SAKERNAS. The latter collects data on wage incomes from households and not on wage levels paid by establishments. It is important to stress that both sources of data are essential as part of Indonesia's national wage statistics system. **SAKERNAS and SUB should in no way be thought of as substitutes.**

2.3 SUB aims to publish data on a quarterly basis and every effort should be made to achieve this goal in 1994. Quarterly wage data are currently not available in non-agricultural sectors and so there is no way that the government can monitor wage trends in rapidly changing sectors of the economy. Besides routine monitoring of policies such as the minimum wage, this survey will also provide a prompt indicator of labour market developments.

These quarterly wage data should become one element in Indonesia's national statistics and should be reported in *Indikator Ekonomi* beginning in 1995.

2.4 In general, SUB has the potential to provide data to the government with two attractive, very important, innovations: good quality wage data and speedy reporting of wage trends. Considerable work has been put into achieving these goals but they have not yet been achieved. More effort on a continuous basis is still needed and the next eighteen months are critical to the success of the work. As noted, if that work is not put in on a systematic and sustained basis, there is a grave danger that the entire effort will fail altogether. SUB will neither provide high quality data nor report data promptly on a quarterly basis.

3 The Problem of Data Consistency and Quality for Individual Enterprises Over Time

3.1 In September - October 1993 the Wages Division of BPS undertook an intensive editing effort on SUB questionnaires for the four quarters of 1992. This was the first time the data for individual establishments had been examined for consistency and plausibility over a four quarter period.[2] The results were disturbing, to say the least. In **nearly half** (47%) of enterprises substantial inconsistencies or implausible changes were found in the

[2] Previous inconsistencies in the data were examined for results from the first quarter in 1992 and several changes were made to survey procedures based on this exercise. See my report to DSP of December 1992 (Statistical Paper No. 44).

reporting of average wage data over the four quarters. The frequency of errors was particularly marked in agro-processing industries and in the hotel sector.

These findings implied a major reassessment was required of survey techniques and administration if data quality was to meet minimum standards for quarterly reporting of wage trends. Previous reporting of data had always been on an annual basis and inconsistencies were not always obvious. This is not the case with average wage data reported on a quarterly basis, however.

3.2 The main sources of inconsistencies - reporting of total wage data, reporting of number of employees or reporting of wage systems - were identified through editing and validation procedures. These are indicated in Table 1. It is clear from the table that the main sources of error were in the reporting of total wages (138 or 27% of errors), reporting of number of employees (26% percent of errors) and inconsistencies in the system of wage payments reported (20% of errors). The major problem was in the consistency of reporting in all three of these areas over four quarters. In one, and sometimes more than one quarter, data were implausibly different to those reported in other quarters.

The next step was to identify why enterprises had reported inconsistent or implausible data for one or more quarters. These could be attributed to several possibilities, including problems associated with:

(i) the concepts, consistency or wording of items contained in the questionnaire
(ii) deficiencies in the instructions to the questionnaire
(iii) shortcomings in the validation checks included in the enterprise report card or *Kartu Laporan Perusahaan* (KLP), or in the administration of the KLP.
(iv) general shortcomings in administration, supervision checking and validation in the survey at the *kabupaten* and province level.

3.3 The extent of these problems were examined principally through two methods: interviews with enterprises which had provided inconsistent data and interviews with provincial and *kabupaten* officials responsible for administration of the survey. In addition, data for the four quarters in 1992 were examined. We attempted to gauge the extent to which certain kinds of firms were more susceptible to inconsistent reporting through an examination of the characteristics of firms for which the data were suspect.

Both the survey of enterprises and interviews with officials proved extremely useful. The sources of a high proportion of the errors could be identified, and that most of the problems could be rectified within the budgetary and administrative framework in which the survey operates.

3.4 Field Visits

The main objective of field visits to establishments was to identify the causes of apparent inconsistencies identified in editing, particularly regarding unexpected and unexplained variations in average earnings from quarter to quarter. These included examination of several matters, including:

(i) several aspects of the questionnaire, including the firms' understanding of basic concepts and variables, and the organisation and presentation of questions

(ii) practical problems related to the firm's data recording systems

(iii) several specific problems which emerged during the editing stage (see above).

The sample of establishments visited included 10 factories and 3 hotels which had made specific errors in reporting of wages over 4 quarters in 1992 and all of which had to be edited by BPS staff and several of which were discarded altogether. The manufacturing firms were located both in the Bekasi and Jakarta region and included those engaged in furniture, garments, spinning, printing, beverages (beer), metals, and electronics. The firms were mainly domestic (PMDN), although several were joint venture.

3.5 Results of Data Analysis: 1992

Data from the SUB for each quarter of 1992 were tabulated and checked for consistency by the Wages Division. The structure of wages are quite plausible, both by province and industry. The changes in wages are still problematic, however, when examined on a quarterly basis. Examples were: (i) Only a very slight increase in (nominal) manufacturing wages March-December (index 100-102); (ii) a decline in the median wages for paper, chemicals and basic metals March-December; (iii) all provinces showed increases in wages yet some industries showed declines. In addition, there was not much improvement after data had been adjusted at BPS for inconsistencies. This suggests that considerable noise is still there after validation tests were applied to edit the data.

Such inconsistencies are not unusual. It is much more difficult to obtain results which indicate the direction and magnitude of relatively small changes in wages, than to indicate differentials at any point in time according to structure. 'Noise' related to data reported by individual establishments plays an important role in the magnitude of wage change reported on a quarterly basis.

4 Changes Recommended to Improve Data Quality

4.1 Revisions to the Questionnaire

A considerable number of inconsistencies could be attributed directly to shortcomings in the questionnaire. Although the questionnaire had already been revised and fine-tuned on several occasions, specific problems emerged related to the consistency of reporting data by individual establishments over several quarters. These could only be identified once data had been collected, edited and validated for several quarters The following problems were encountered and adjustments made to the questionnaire accordingly:[3]

(i) **The concept of production workers:** Failure to emphasise sufficiently (and make establishments sufficiently aware of) that the concept of production workers applied only to employees below the level of *mandor/montir*. This problem has already remedied to a considerable extent through addition of questions on the composition of the firm's work force which were added to the questionnaire in 1993.

(ii) **Pay periods:** Lack of flexibility in the specification of pay periods resulted in the incorrect reporting of some data for pay periods other than those covered in the questionnaire. The recommended solution to this problem is to specify only the main pay periods in the questionnaire (weekly and monthly) and to leave the specification of the two other pay periods open-ended.

(iii) **Number of employees:** Several establishments found it difficult to report the <u>average</u> number of employees per pay period. Uncertainty concerning this concept encouraged inconsistent reporting. It has been decided to revise the definition of number of employees to include number of persons **on the pay-roll** during the pay period, a concept that establishments can easily understand and measure. Consistency checks on the number of employees were also added to the revised questionnaire.

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[3] See Appendix 1 for a copy of the revised questionnaire.

(iv) **Validation checks:** Lack of built-in (validation) checks in the questionnaire meant that firms are not encouraged to participate actively in editing and validation. A significant proportion of problems were clearly the result of simple errors in reporting on the part of establishments which could be avoided easily if they were more careful with regard to absolute magnitudes reported.

Part of the solution to this problem must be to involve firms more actively in a review of the reliability and internal consistency of reporting. In support of this, two changes have been made to the questionnaire: firms are now requested to calculate average earnings for the pay period under consideration, and they are requested to report total expenditure on wages and total number of employees for the previous quarter. They are also requested to provide an explanation for any major change in the totals compared with the previous quarter findings.[4]

(v) **Payments in-kind:** One obvious source of inconsistency in reporting was the treatment of payments in-kind. This involved both the coverage of items provided in-kind and estimation of their rupiah value. A simple solution has been agreed on, namely to drop this item from the questionnaire altogether. To ensure no misunderstanding arises regarding the absolute value of wages reported from the survey, it should be clearly explained to users that total average earnings refer to cash payments only.

It should be noted that in-kind payments are a relatively small component of total wage costs and hence this adjustment will not greatly affect the total level of wages. Since **consistency** in reporting by individual establishments (and across establishments) over time is the key goal, dropping of the question on in-kind payments should not influence the reporting of wage trends.

(vi) **Minor changes:** Several minor editing changes were made to the wording in questionnaire and a question on wage components was excluded.

These changes to the questionnaire can be expected to help overcome many of the inconsistencies in reporting. However, it is clear that improvement in the survey instrument alone would not be sufficient to reduce the error rate to an acceptable level. Several of the

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[4] Part of the solution also lies in improvements to filling in and checking the KLP by the mantis and regional offices (see below).

firms interviewed made errors because of sloppy filling in of data and lack of attention to detail. In part this arose from antagonism towards data collectors and in part because the firms had no appreciation of what the data were collected for. Changes in the employees responsible for reporting wage data from individual establishments in SUB also contributed to incorrect or inconsistent responses.

Improvements in the administration and format of the KLP (enterprise reporting card) and in communication with the enterprise regarding the importance of data consistency from one quarter to the next will be needed to assist improvement in the quality of data for the SUB.

4.2 Revisions to the Enterprise Reporting Cards (KLP)

A more intensive and systematic editing effort at the *kabupaten* and province level is required before the questionnaires get to BPS. The most important steps relate to the use of the KLP. This is an innovation which has not yet been administered intensively in the SUB. The most important changes recommended were the revisions to the form, and clearer specification of the steps involved in the validation process using KLP's at the *kabupaten* and provincial levels.

The most important changes have been to make validation procedures much more explicit and to request recheching of values which are implausible (outside a given range). The revised KLP is shown in Appendix 2. In particular, items 24-27 provide consistency checks on data contained in the questionnaire and recorded in the KLP. If "yes"is answered in any one of the checks for inconsistencies, the reasons for the anomaly are supposed to be recorded on the other side of the form.

4.3 Improvements to the Administration of the KLP

Clear guide-lines on decision rules regarding the flow of documents, and actions to be taken in the case of errors identified in the KLP, are now set out clearly in a flow chart which accompanies written guide-lines (*Pedoman Pelaksanaan)* for execution of SUB (See Appendix 3). The flow chart indicates the action required if different kinds of errors are identified by the *kabupaten* or provincial Statistical Office officials.

Through more systematic application of the KLP, it is hoped that the *mantis* and regional officials will identify and correct data errors at the time of data collection.

4.4 Other Recommendations to Assist Improvements in Data Quality

Adjustments to the Sample: By far the highest error rate was recorded among agro-processing industries. This was primarily because of seasonal variations in the number of employees and in total wages reported. It is recommended that BPS do not include data from agro-processing industries in published data for 1992-1994. Unless the quality of data from these establishments is improved significantly, it is recommended that they be dropped from the sampling frame when it is revised at a future date.

Guide-lines for Execution of the Survey (*Pedoman Pelaksanaan SUB)*: These have been completely revised to provide more comprehensive guide-lines for execution of the survey and flow of documents, including the KLP.

Direct Communication with Establishments: Distribution of a letter of information to all establishments is recommended. This should explain changes to the questionnaire and emphasise the importance of reporting consistent data from one quarter to another.

Constant Monitoring of the Error rate: Mechanisms are recommended for constant monitoring of the error rate through validation procedures. Monthly data should also be made available on a regular basis regarding the number of questionnaires completed.

Training: Training of the provincial and *kabupaten* officials and the data collectors (*mantis*) is an urgently needed activity. Training for the SUB has not been a high priority in BPS activities in the past, and a major training effort has not been viewed as an essential element in the redesign of SUB.

This lack attention to training is partly because most of the training activities in the Population and Manpower division have been oriented towards household rather than enterprise surveys. Past emphasis on household surveys is understandable, given that almost all of the other population and labour force data collected in the division are taken directly from households, not from establishments as in the industry and other branches of BPS. It has led to the unfortunate practice of 'tacking on' SUB training activities to the end of other labour force training sessions, almost as an afterthought.

Training activities must be planned, budgeted for and executed to ensure correct application of the questionnaire and innovative editing/validation procedures at all levels of administration of the survey. It appears that no budget has been allocated for training of *petugas* in the SIB in 1994/1995. This is a potentially very harmful oversight at this critical stage in the survye's development. It is highly recommended that careful consideration be given to ways in which basic training activities of key provincial and *kabupaten* officials be undertaken in financial year 1994/1995. This is especially important

because this is the year when it planned to 'launch' the new data to the public; training is an essential determinant of data quality in this important first year of publication.

Priority should especially be given to the five provinces (DKI, West, Central and East Java and North Sumatra) in which over 80% of the manufacturing sample is concentrated. If this is not done, the considerable time and expense in revising the instruments and system of data collection in SUB will be wasted.

4.5 The Importance of On-Going Monitoring of Quality

It is important to emphasise that improvements to the questionnaire, a letter to the establishments, improvements to the KLP and to editing/validation procedures will probably only solve around half of all errors in reporting. Continuous attention to these issues of on the part of the Head of the Wages Section at BPS and his staff is an essential element in this effort. It is also important that the structure of remuneration for the head of the section and his staff encourage sustained efforts in the areas of monitoring and validation of the SUB. If it is not possible to ensure that the Head and staff of the Wages Section can administer this survey on a sustained and on-going basis (in contrast to sporadic, one-off involvements), then the goals of high quality data and prompt reporting will not be achieved.

4.6 The Administration and Execution of SUB at BPS

SUB is administered and executed by the Demographic and Manpower Bureau which is mainly concerned with household surveys. From a subject point of view, it makes sense for the SUB to be in a bureau with deals with labour issues. From a practical and administrative point of view, the SUB is likely to fit best in a bureau concerned with establishment surveys. If continuous monitoring efforts cannot be institutionalised within the Bureau of Population and Manpower, then serious thought should be given to moving the survey elsewhere in BPS. The Industry Bureau would be the obvious alternative since it concerned with establishment surveys.

4.7 The Importance of Immediate and Sustained Effort to Achieve Publication of Quarterly Data by October 1994

Efforts to undertake, analyse and publish a new SUB have not been successful yet because there is no output to show users. If no results are available in 1994, then it is quite likely that key users will loose interest in the survey. This would be a great shame, as in

addition to wasting resources in the design of a new survey, an opportunity would have been lost to provide important data to government and other users at a time when they have urgently expressed a need for it. Once reliable data are available to key users on a regular basis, there is no doubt that demand will provide a momentum for continued supply of up-to-date wage data.

The following publications schedule is recommended:

1. The 1992, edited tables should released on a restricted basis to BAPPENAS/ DEPNAKER as early as possible (no later than mid-1994), with warnings regarding the reliability of the data. This should be provided as an example data to be published on an up-to-date basis on trends in wages.
2. The 1994 data should be released to key users on a quarterly basis beginning October 1994. This would include data for the first quater of 1994 as a base (=100) and quarterly data and indices for the first two quarters in 1994.
3. Initial publication should concentrate on manufacturing establishments. Wage data on the hotel sector should only be published on a quarterly basis if major problems of data quality have been overcome. If data quality problems persist for the hotel sector, the data could be initially published on an annual basis. In the medium term, the inclusion of hotels in the sample should be reviewed. There is a strong case for eventually only including manufacturing establishments in SUB, in order to focus the survey in the sector of most interest to the government and other key users. Data on wages in hotels could be included at a later date in other surveys which concentrate on wages in service industries.

As noted in previous reports (May and December 1992), these surveys are likely to be more useful if they are targetted to examine wage trends in specific occupations. Possible occupations which might be covered are shop assistants, petrol sales attendats and waiters/waitresses in restaurants, as well as bell-boys in hotels. Like the hotel sector, these occupations are relatively homogeneous in terms of skill and are in industries which are represented throughout Indonesia. They should make an important contribution to monitoring the structure and trends in regional wage differentials. As I have argued elsewhere, the important subject of regional wae differentials cannot be adequately dealt with in manufacturing sector wage surveys.

Table 1
Sources of Problems and Adjustments to Data Based on Validation Procedures, Quarterly Results of the 1992 Wages Survey

Problem	Adjustments Code*)					Jumlah
	2	7	8	11	13	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Basic Wage	39	20	43	36	-	138
Emoluments	11	1	5	1	-	18
In-kind Payments	3	-	-	1	-	4
Overtime	5	2	-	2	-	9
Number of employees	21	77	16	19	-	133
Systems of Wages Payment	8	32	17	14	31	102
Other	27	15	9	5	3	59
Combination	13	6	16	16	1	52
OTHER	127	153	106	94	35	515

Explanation:
Code*)
2. Data adjusted
7. Drop one pay period for all quarters
8. Drop one questionnaire
11. Drop one pay period for one quarter
13. Adjustment to wage payment system

Appendix I : Revised Questionnaire

AKAN DIAMBIL

Tgl	Bln	Thn

REPUBLIK INDONESIA
BIRO PUSAT STATISTIK

DAFTAR VU-1

SANGAT RAHASIA

SATU ASLI UNTUK BPS
SATU ARSIP PERUSAHAAN

SURVEI UPAH
KEGIATAN USAHA INDUSTRI
DAN PERTAMBANGAN

KODE PERUSAHAAN
Prop. Kab. Kec. Sektor No. urut

BULAN PELAPORAN
Bulan Tahun 9

BLOK I. KETERANGAN IDENTITAS PERUSAHAAN

1. Nama Perusahaan :
2. Alamat Perusahaan/Unit Produksi :

Kec.

3. (a) Produk/Kegiatan Utama : Diisi BPS

(b) Apakah produk utama berubah sejak triwulan yang lalu?
Ya - 1 Tidak - 2. Bila "Ya", jelaskan di Blok V

(c) Tahun mulai produksi :

(d) Status modal usaha :
1. PMDN 3. Negara (BUMN, Persero, dsb.)
2. PMA 4. Gabungan
5. Lainnya (sebutkan)

4. Apakah ada produksi yang diekspor tahun lalu?
Ya - 1, ———— % Tidak - 2

PERHATIAN
1. Kewajiban untuk memberikan keterangan statistik dan kerahasiaan data yang dikumpulkan dalam survei ini dijamin oleh Undang-Undang No. 7 Tahun 1960 tentang Statistik.
2. Agar penyajian hasil survei tepat waktu, untuk bahan sidang perencanaan di Jakarta, perusahaan diharapkan dapat menyelesaikan pengisian kuesioner paling lambat 1 (satu) minggu setelah tanggal penerimaan.

DITERIMA DI:

	Tgl Bln Thn
KS TK II	9
KS TK I	9

PENGECEKAN KARTU LAPORAN PERUSAHAAN (Y/T)

	Diisi & Terlampir	Validasi Ada "Ya"?	diisi Jelas?
KS TK II			
KS TK I			

LOK II. KETERANGAN UMUM PERUSAHAAN HANYA UNTUK KARYAWAN PRODUKSI DI BAWAH TINGKAT PENGAWAS/MANDOR.

1. HARI DAN JAM KERJA BIASA TANPA LEMBUR

Hari Kerja Seminggu	Jam Kerja Seminggu	Jumlah Shift/Plug Sehari
(1)	(2)	(3)
☐ hari	☐☐ jam	☐ kali

2. TUNJANGAN YG DIBAYARKAN SECARA TERATUR DLM BENTUK NATURA (lingkari nomor yg sesuai)
   1. Makan saja
   2. Angkutan/Jemputan saja
   3. Natura lainnya (sebutkan)
   4. Kombinasi ☐

3. UPAH TERENDAH/TERTINGGI (TERMASUK TUNJANGAN TERATUR) KARYAWAN PRODUKSI DI BAWAH TINGKAT PENGAWAS/MANDOR PER HARI/MINGGU/BULAN

				Kode
(a) Terendah	Rp	☐☐☐☐☐☐☐	per	☐
(b) Tertinggi	Rp	☐☐☐☐☐☐☐	per	☐

Kode 1 = Hari
2 = Minggu
3 = Bulan

A. JUMLAH KARYAWAN

J E N I S P E K E R J A A N	Laki-laki	Perempuan	Laki-laki + Perempuan
(1)	(2)	(3)	(4)
1. Bukan Tenaga Kerja Produksi a. Manajer			☐☐☐☐
b. Administrasi/Kantor			☐☐☐☐
c. Lainnya			☐☐☐☐
2. Tenaga Kerja Produksi a. Tenaga Kerja Alhi/Tehnisi/ Ahli Mesin			☐☐☐☐
b. Tenaga Kerja Pengawas/Mandor			☐☐☐☐
c. Karyawan Produksi Lainnya di Bawah Tingkat Pengawas/Mandor	☐☐☐☐	☐☐☐☐	☐☐☐☐
JUMLAH SELURUHNYA	☐☐☐☐	☐☐☐☐	☐☐☐☐

KETERANGAN UPAH TIDAK PERLU DIMASUKKAN DI BLOK IV

B. JML KARYAWAN PRODUKSI*) DI DAFTAR GAJI MENURUT SISTIM PEMBAYARAN & STATUS KARYAWAN

SISTIM PEMBAYARAN	STATUS KARYAWAN				JUMLAH	Data upah diisi di Blok IV pada
	Harian Lepas/ Kontrak	Borongan	Harian Tetap	Bulanan		
(1)	(2)	(3)	(4)	(5)	(6)	
1. Mingguan	☐☐☐☐	☐☐☐☐☐	☐☐☐☐☐	☐☐☐☐	☐☐☐☐☐	Kol. 2
2. Bulanan	☐☐☐☐	☐☐☐☐☐	☐☐☐☐☐	☐☐☐☐	☐☐☐☐☐	Kol. 3
3. Periode pembayaran lainnya**) Diisi BPS						
a. ..... ☐	☐☐☐☐	☐☐☐☐☐	☐☐☐☐☐	☐☐☐☐	☐☐☐☐☐	Kol. 4
b. ..... ☐	☐☐☐☐	☐☐☐☐☐	☐☐☐☐☐	☐☐☐☐	☐☐☐☐☐	Kol. 5
J U M L A H	☐☐☐☐	☐☐☐☐☐	☐☐☐☐☐	☐☐☐☐	☐☐☐☐☐	<—

*) Hanya untuk karyawan produksi di bawah tingkat pengawas/mandor dan untuk semua shift (sesuai Blok III A Bingian 2C)

BLOK IV. KETERANGAN KARYAWAN PRODUKSI*) MENURUT SISTIM PEMBAYARAN UPAHNYA SELAMA SATU KALI PERIODE PEMBAYARAN

RINCIAN	SISTIM PEMBAYARAN **)			
	MINGGUAN	BULANAN	SISTIM LAINNYA (Sebutkan)	
			....	....
(1)	(2)	(3)	(4)	(5)
1. PERIODE PEMBAYARAN DAN HARI KERJA UNTUK PERIODE PEMBAYARAN TERAKHIR BULAN PELAPORAN			☐ DIISI OLEH BPS	☐
a. Periode pembayaran upah dari tanggal berapa sampai berapa	tgl.....s/d.......	tgl.....s/d.......	tgl.....s/d.......	tgl.....s/d.......
b. Jumlah hari kerja biasa pada periode pembayaran upah tsb.	☐	☐☐	☐☐	☐☐
c. Jumlah hari kerja lembur pada hari libur selama periode pembayaran upah tsb.	☐	☐☐	☐☐	☐☐
2. JUMLAH KARYAWAN PRODUKSI DI DAFTAR GAJI SESUAI JUMLAH YANG DIISIKAN PADA BLOK III B KOLOM (6) (Laki-laki + perempuan)	☐☐☐☐☐	☐☐☐☐☐	☐☐☐☐☐	☐☐☐☐☐
3. JUMLAH UPAH/GAJI DAN TUNJANGAN YANG DIBAYARKAN KEPADA SEMUA KARYAWAN PRODUKSI DI BAWAH TINGKAT PENGAWAS/MANDOR				
a. Upah/gaji pokok atau upah kotor kalau tunjangan tetap tidak dapat dipisahkan	(Dalam ribuan Rp.) ☐☐☐☐☐☐	(Dalam ribuan Rp.) ☐☐☐☐☐☐	(Dalam ribuan Rp.) ☐☐☐☐☐☐	(Dalam ribuan Rp.) ☐☐☐☐☐☐
b. Tunjangan lainnya yang dibayar dalam setiap periode pembayaran secara teratur dalam bentuk uang***)	(Dalam ribuan Rp.) ☐☐☐☐☐☐	(Dalam ribuan Rp.) ☐☐☐☐☐☐	(Dalam ribuan Rp.) ☐☐☐☐☐☐	(Dalam ribuan Rp.) ☐☐☐☐☐☐
c. Upah lembur pada hari kerja biasa dan pada hari libur	(Dalam ribuan Rp.) ☐☐☐☐☐☐	(Dalam ribuan Rp.) ☐☐☐☐☐☐	(Dalam ribuan Rp.) ☐☐☐☐☐☐	(Dalam ribuan Rp.) ☐☐☐☐☐☐
d. Jumlah (a+b+c)	(Dalam ribuan Rp.) ☐☐☐☐☐☐	(Dalam ribuan Rp.) ☐☐☐☐☐☐	(Dalam ribuan Rp.) ☐☐☐☐☐☐	(Dalam ribuan Rp.) ☐☐☐☐☐☐
4. RATA-RATA UPAH PER KARYAWAN UNTUK SISTIM PEMBAYARAN UPAH YANG SAMA (Rincian 3d dibagi [÷] Rincian 2)	(Dalam Rupiah) ☐☐☐☐☐☐	(Dalam Rupiah) ☐☐☐☐☐☐	(Dalam Rupiah) ☐☐☐☐☐☐	(Dalam Rupiah) ☐☐☐☐☐☐
5. KETERANGAN YANG DISALIN DARI KUESIONER VU-1 TRIWULAN SEBELUMNYA	Jika terjadi perubahan > 10 % terhadap periode pembayaran terakhir triwulan ini, harap dicek apakah data konsisten antar triwulan dan jelaskan di Blok V (di halaman berikutnya).			
a. Jumlah karyawan (Blok IV Rincian 2, triwulan sebelumnya)	☐☐☐☐☐	☐☐☐☐☐	☐☐☐☐☐	☐☐☐☐☐
b. Jumlah upah/gaji dan tunjangan (Blok IV Rincian 3d, triwulan sebelumnya)	(Dalam ribuan Rp.) ☐☐☐☐☐☐	(Dalam ribuan Rp.) ☐☐☐☐☐☐	(Dalam ribuan Rp.) ☐☐☐☐☐☐	(Dalam ribuan Rp.) ☐☐☐☐☐☐

Catatan:
*) Di Bawah Tingkat Pengawas/Mandor, sesuai dengan Blok III B Kolom (6).
**) Diisi hanya untuk sistim pembayaran yang ada di perusahaan anda.
***) Tidak termasuk THR, bonus/insentif tahunan, semesteran, kuartalan dan tunjangan dalam bentuk natura.

Appendix 2 : Enterprise Report Card (KLP)

Survei Upah Buruh
Kartu Laporan Perusahaan

Nama Perusahaan: . . . . . .

Kode Perusahaan: [ ][ ][ ][ ][ ][ ][ ] [ ][ ][ ][ ][ ] [ ][ ][ ][ ]

Tahun : 199

Produksi Utama: . . . . . .

RINCIAN	Triw. IV tahun sebelumnya	Triwulan I	Triwulan II	Triwulan III	Triwulan IV
1. Jumlah seluruh karyawan produksi (Blok IIIA, Rn 2c)					
2. Upah terendah per . . . . . (Blok II, Rn 3a)					
3. Upah terendah per hari					
4. Upah tertinggi per . . . . . (Blok II, Rn 3b)					
5. Upah tertinggi per hari					
Sistem Pembayaran I					
6. Jumlah hari kerja biasa (Blok IV, Rn 1b)					
7. Jumlah karyawan produksi (Blok IV, Rn 2)					
8. Upah pokok (Rp 000) (Blok IV, Rn 3a)					
9. Tunjangan lain (Rp 000) (Blok IV, Rn 3b)					
10. Upah lembur (Rp 000) (Blok IV, Rn 3c)					
11. Jumlah upah/gaji (Rp 000) (8+9+10)					
12. Upah karyawan rata-rata (11 ÷ 7) x 1000 (Rp)					
13. Upah karyawan rata-rata per hari (12 ÷ 6)					
14. Perubahan (13) dibanding triwulan yg lalu (%)					
Sistem Pembayaran II					
15. Jumlah hari kerja biasa (Blok IV, Rn 1b)					
16. Jumlah karyawan produksi (Blok IV, Rn 2)					
17. Upah pokok (Rp 000) (Blok IV, Rn 3a)					
18. Tunjangan lain (Rp 000) (Blok IV, Rn 3b)					
19. Upah lembur (Rp 000) (Blok IV, Rn 3c)					
20. Jumlah upah/gaji (Rp 000) (17+18+19)					
21. Upah karyawan rata-rata (20 ÷ 16) x 1000 (Rp)					
22. Upah karyawan rata-rata per hari (21 ÷ 15)					
23. Perubahan (22) dibanding triwulan yg lalu (%)					
Pengecekan/Validasi (Isikan Ya atau Tidak untuk setiap triwulan) 24. Upah tertinggi (5) lebih dari 4x upah terendah (3)					
25. Upah karyawan rata-rata per hari (13,22) lebih dari upah tertinggi (5) atau kurang dari upah terendah (3)					
26. Perubahan upah karyawan rata-rata per hari (14,23) pada satu triwulan lebih dari 20%					
27. Sistem/periode pembayaran berubah sejak triwulan yg lalu					
28. Ada jawaban "ya"untuk satu atau lebih dari satu pertanyaan (24 - 27)					
29. Kalau jawaban 28 "ya",halaman belakang sudah diisi					
30. KLP sudah difotocopy & dilampirkan dgn kuesioner*)					
31. Nama petugas yang mengisi KLP					
32. Tanda tangan petugas yang mengisi KLP					
33. Tanggal pengisian KLP					

HALAMAN INI DI FOTOKOPI HANYA BILA ADA ISIAN PADA TRIWULAN YBS.

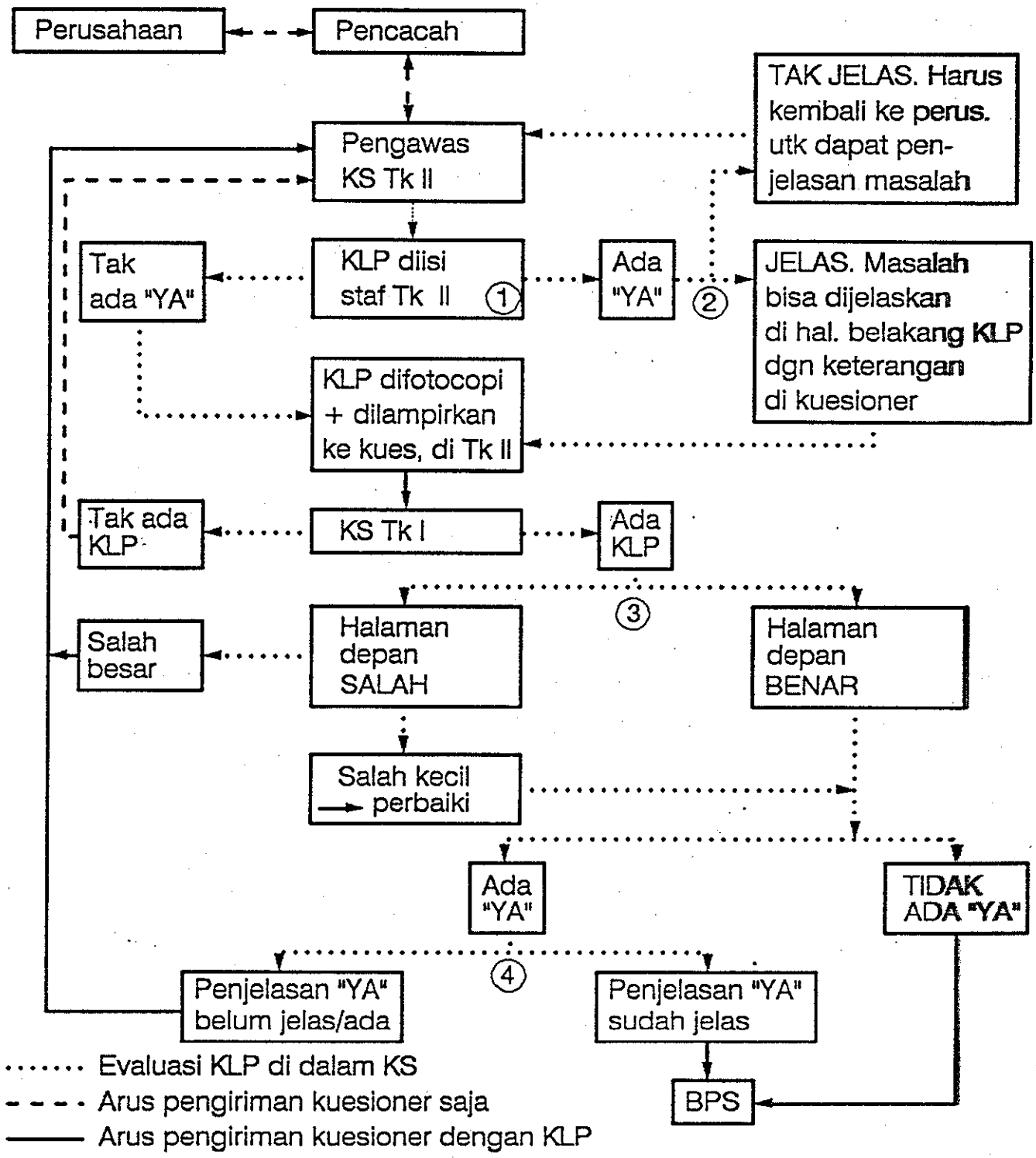
PENJELASAN DARI KETIDAKSESUAIAN YANG DITEMUKAN DI HALAMAN DEPAN

Satu lembar KLP akan digunakan untuk satu perusahaan selama 1 tahun, dan diisi oleh staf KS Kabupaten/Kotamadya yang ditunjuk. Setelah dilakukan pengecekan, apabila ditemukan isian Ya pada rincian 28, maka perlu dilakukan kunjungan ulang ke perusahaan, kecuali sudah ada penjelasan dari perusahaan pada Blok V di kuesioner. Selanjutnya, jelaskan alasan ketidaksesuaian data dalam/antar triwulan dengan jelas dan singkat di kolom yang disediakan dibawah ini. Ada kemungkinan bahwa ketidaksesuaian tersebut disebabkan oleh jam kerja lebih (lembur), jam kerja kurang, ada kenaikan upah/gaji, upah lembur sangat tinggi dan sebagainya.

Tri-wulan	Nomor rin-cian	Alasan ketidaksesuaian data dalam/antar triwulan	Disediakan melalui? **)

Catatan:
Rincian 3 : Rincian 2 dibagi dengan jumlah hari kerja menurut sistem pembayarannya (dari IV, Rincian 1b).
Rincian 5 : Rincian 4 dibagi dengan jumlah hari kerja menurut sistem pembayarannya.
*) Lengkap dengan fotocopy halaman belakang, kalau ada isinya.
**) Isikan: kunjungi lagi, telepon, atau dari keterangan yang sudah ada di kuesioner.

Appendix 3 : Decision Rules and Flow of Documents in Validation Procedures for the KLP



Bagian H: Sebab-Sebab Adanya Variasi Dalam Upah

- Bagian ini terutama dimaksudkan untuk menelusuri faktor-faktor yang menyebabkan perbedaan dalam pelaporan jumlah upah dari satu kwartal ke kwartal lainnya. Keterangan tersebut dapat mengecek adanya kesalahan dalam pelaporan jumlah upah karena salah hitung dsb..

- Dalam kwesioner ini tidak ditanyakan jamlah hari-orang (man-days) guna menghitung rata-rata pendapatan per hari-orang. Hal ini terutama didasarkan kenyataan bahwa banyak perusahaan mengalami kesulitan dalam melaporkan jumlah hari bekerja/dibayar untuk setiap karyawan. Ukuran tersebut hanya dapat diperoleh apabila perusahaan telah mentabulasi data mengenai absensi setiap karyawan. Data mengenai absensi buruh biasanya dicatat pada kartu karyawan tetapi tidak ditabulasi oleh banya perusahaan. Kemungkinan besar pelaporan akan diperlambat apabila data absensi dekehendaki.

Bagian I: Kesulitan Dalam Pengisian -- Pertanyaan ini dicantumkan terutama untuk survei pilot agar dapat diketahui (i) waktu yang diperlukan untuk pengisian dan (ii) kesulitan dalam pengisian yang mempengaruhi ketepatan/reliabilitas data. Diharapkan keterangan ini dapat membantu perbaikan kwesioner.

PENJELASAN/PETUNJUK PENGISIAN
KUESIONER PENDAPATAN BURUH

A : IDENTITAS PERUSAHAAN

BAGIAN INI HANYA DIISI UNTUK KEADAAN BULAN JANUARI, JIKA ADA PERUBAHAN TULISKAN PADA BAGIAN F

Perusahaan adalah suatu unit kegiatan ekonomi di bawah suatu pemilikan, pengelolaan atau pengawasan suatu kegiatan ekomomi tertentu pada suatu unit lokasi.
Kegiatan ekonomi adalah suatu usaha yang dijalankan dengan maksud untuk menghasilkan suatu keluaran atau output, baik dengan maksud mencari keuntungan atau tidak, baik milik swasta maupun pemerintah yang mempekerjakan buruh/karyawan dan mempunyai management atau administrasi sendiri.
Perusahaan yang tidak memiliki unit produksi atau unit produksi yang tidak memiliki management administrasi tersendiri **tidak** dianggap sebagai perusahaan. Sedangkan usaha sosial dan usaha usaha lainnya yang tidak berbentuk perusahaan, diperlakukan sebagai perusaahaan apabila mempunyai pengurus dan mempekerjakan orang lain sebagaimana perusahaan mempekerjakan buruh/karyawan.
Bila dua perusahaan atau lebih yang diusahakan oleh satu orang atau badan dan administrasinya tidak dapat dipisahkan satu dari lainnya maka perusahaan perusahaan itu dicacah sebagai satu perusahaan(enterprise).

Pert. (1). Tuliskan nama perusahaan sebagaimana yang tercantum pada akta pendiriannya.
(2). Tuliskan nomor telepon perusahaan.
(3). Tuliskan alamat perusahaan selengkap lengkapnya.
(4a). Tuliskan produk utama perusahaan, yaitu produk yang paling besar persentasenya terhadap keseluruhan output/keluaran.
(4b). Tuliskan jumlah karyawan seluruhnya yang bekerja pada perusahaan ini pada tanggal 10 Januari tahun ini.
Karyawan perusahaan adalah semua orang yang bekerja untuk perusahaan dan **dibayar langsung** oleh perusahaan tempat ia bekerja, baik yang aktif bekerja ataupun yang sementara sedang cuti, cuti sakit, ijin perusahaan, sedang mengikuti trainning, berstatus buruh tetap, lepas, kontrak,maupun borongan.
Termasuk karyawan perusahaan:
1. Manejer
2. Eksekutif dan administrasi
3. Karyawan produksi
4. Karyawan Lainnya

Tidak termasuk karyawan :
Pensiunan, pekerja keluarga yang tidak dibayar, karyawan yang sedang mogok/cuti/sakit selama periode pembayaran dan tidak dibayar.

Pert. (4c). Tuliskan tahun perusahaan ini mulai berproduksi secara komersial.
Pert. (4d). Tuliskan persentase nilai produksi yang diekspor tahun lalu dalam perkiraan saja, misal 17%, 48%, 77%.
Produk yang diekspor ialah produk yang diketahui oleh perusahaan dipasarkan di luar negeri.
Pert. (4e). Tuliskan jumlah plug/shift setiap hari pada bulan Januari tahun ini.
Pert. (4f). Lingkari salah satu status nomor permodalan perusahaan ini.

B. KETERANGAN UMUM PERUSAHAAN.

BAGIAN INI DIISI HANYA UNTUK KARYAWAN PRODUKSI DIBAWAH TINGKAT MANDOR/MEKANIK KEADAAN BULAN JANUARI
JIKA ADA PERUBAHAN TULISKAN PADA BAGIAN F

Karyawan produksi hanya meliputi semua karyawan yang terlibat secara langsung dalam proses produksi dan berada di bawah tingkat mandor/mekanik.

Karyawan produksi meliputi :

- asisten montir
- kepala regu
- packing
- assembling
- handling
- receiving
- processing
- fabricating
- pesuruh di bagian produksi

Tidak termasuk karyawan produksi :

- mandor/pengawas
- mekanik/montir
- klinik
- product development
- eksekutif
- trucking
- maintenance
- keuangan
- keamananan
- kafetaria
- instalasi
- pemasaran
- urusan pegawai
- pembelanjaan/penjualan
- kredit
- pembukuan yang tidak berkaitan dengan proses produksi.

Pert. (1a). Tuliskan jumlah hari kerja biasa tanpa lembur per minggu.
Hari kerja biasa ialah hari hari yang ada kegiatan kerja biasa. Minggu yang dipakai untuk bekerja karena shift/plug, dimasukkan sebagai hari kerja biasa.

Pert. (1b). Tuliskan jumlah jam kerja biasa tanpa jam kerja lembur atau istirahat per minggu.

Pert. (2a). Tuliskan tingkat upah terendah dalam rupiah dan periode pembayarannya untuk karyawan produksi baru.
Tingkat upah terendah ialah upah pokok dan tunjangan tunjangan tetap yang dibayarkan secara teratur setiap periode pembayaran terendah yang diterima seorang karyawan baru perusahaan ini.

Pert. (2b). Tuliskan tingkat upah tertinggi dalam rupiah dan periode pembayarannya untuk karyawan perusahaan.

Pert. (3). Tuliskan persentase dari ciri ciri utama karyawan produksi pada baris yang sesuai.
(3a). Cukup jelas.
(3b). Cukup jelas.
(3c). Tuliskan persentase karyawan yang telah mempunyai masa kerja kurang dari 2 tahun dan persentase karyawan yang telah mempunyai masa kerja lebih dari 10 tahun.
Masa kerja karyawan ialah jumlah waktu karyawan bekerja terus menerus di perusahaan ini.

Pert. (4). Berikan tanda " V " pada kotak yang sesuai.

C. KETERANGAN SISTEM PEMBAYARAN.

BAGIAN INI DIISI HANYA UNTUK KARYAWAN PRODUKSI DI BAWAH TINGKAT MANDOR/MEKANIK
KEADAAN BULAN JANUARI, APRIL, JULI, ATAU OKTOBER JIKA ADA PERUBAHAN TULISKAN PADA BAGIAN F

Sistem pembayaran upah dapat dilakukan secara mingguan, dua mingguan, tengah bulanan, atau bulanan. Bila sistem pembayaran kurang dari satu bulanan, pilihlah **waktu pembayaran yang mencakup tanggal 10** pada bulan bulan laporan yang bersangkutan. Contoh sistem pembayaran yang dilakukan adalah MINGGUAN:

(1). Misal laporan bulan Oktober 1989.
Pembayaran minggu pertama mencakup hari hari kerja tanggal 2 samapai 7, minggu ke dua mencakup tanggal 9 - 14, dst. Sistem pembayaran yang dilaporkan adalah pembayaran minggu ke dua karena mencakup tanggal 10 bulan tersebut.

(2). Bila tanggal 10 jatuh pada hari Minggu dan bukan hari kerja biasa, maka periode pembayaran yang dilaporkan adalah pembayaran untuk tanggal 4 - 9.

Status karyawan.

(1). Kontrak - meliputi kontrak kerja yang kurang dari 6 bulan. Bila masa kontrak kerja lebih dari 6 bulan , isikan sebagai karyawan bulanan.
Harian lepas - ialah karyawan yang dibayar berdasarkan jumlah haru kerjanya. Umumnya upah mereka berupa suatu paket yang tidak dapat dipisahkan antara gaji pokok dan tunjangannya.
Borongan- meliputi karyawan yang dibayar berdasarkan hasil kerjanya yang dihitung per satuan hasil.

(2). Harian tetap - ialah semua karyawan yang pembayarannya didasarkan pada jumlah hari kerjanya. Biasanya upah mereka terdiri dari berbagai komponen seperti upah pokok dan tunjangan tunjangan yang bisa dipecahkan/ bukan disatukan.

(3). Bulanan - Cukup jelas.

D. KETERANGAN UPAH.

BAGIAN INI HANYA DIMAKSUDKAN HANYA UNTUK KARYAWAN PRODUKSI DI BAWAH TINGKAT MANDOR / MEKANIK

Semua keterangan pada bagian ini diisi sesuai dengan sistem pembayaran yang mencakup yanggal 10 pada bulan laporan sebagaimana yang disebutkan pada sistem pembayaran di BAGIAN C.

Pert. (1a). Tuliskan sistem pembayaran upah seperti yang tertera di bagian C.

Pert. (1b). Tuliskan periode pembayaran yang mencakup tanggal 10 bulan yang bersangkutan.
Contoh. - sistem pembayaran mingguan : tanggal 6 s/d 11, 4 s/d 9 (dimana tgl 10 Minggu)
2 mingguan : tanggal 1 s/d 13, dsb
tengah bulanan : tanggal 1 s/d 14, dsb
bulanan : tanggal 1 s/d 30, tgl 28 s/d 27, dsb

Pert. (1c). Tuliskan jumlah hari kerja biasa di luar hari kerja lembur pada hari libur/Minggu dalam periode pembayaran yang tertera dalam perincian (1b) di atas.

Pert. (1d). Jumlah hari kerja lembur pada hari libur/Minggu dalam periode pembayaran (1b) di atas.

Pert. (2a). Salin dari jumlah/rekap di bagian C untuk status karyawan yang sesuai.

Pert. (2b). Cukup jelas.

Pert. (3). **Upah/gaji(berupa uang atau barang)** ialah suatu suatu penerimaan imbalan/balas jasa dari pengusaha kepada karyawan untuk suatu pekerjaan/jasa yang telah atau akan dilakukan, dinyatakan dalam bentuk uang.
Pertanyaan (3) meliputi semua upah/gaji yang dibayarkan secara teratur/tetap selama periode pembayaran yang tertera dalam perincian (1b), termasuk upah lembur.
Upah/gaji tidak termasuk pembayaran
- Bonus, kecuali dibayar secara reguler setiap periode pembayaran
- Tunjangan lebaran/perkawinan/khitanan
- Uang penggantian biaya sakit
- Tunjangan perumahan/ perumahan dinas
- Tunjangan pakaian kerja

Pert. (3a). Tuliskan jumlah upah/gaji pokok sebelum dipotong dengan pembayaran asuransi, pajak, iuran wajib, dan potongan wajib lainnya seperti potongan karena mangkir.

Pert. (3b). Tuliskan jumlah upah/gaji lainnya yang dibayarkan secara reguler dalam bentuk UANG, termasuk :
- uang transport
- uang makan
- uang hadir
- tunjangan jabatan
- tunjangan premi/target
- insentif reguler

Pert. (3c). Tuliskan nilai upah dalam bentuk natura,**termasuk**pelayanan makan dan transport dan dinilai dalam bentuk uang. Upah natura**tidak termasuk**pakaian kerja dan perumahan/ asrama. Cara mengkonversikannya adalah sebagai berikut:
(1) Makan : Nilai makanan yang dibagikan kepada karyawan dengan harga pasaran setempat dikalikan dengan jumlah karyawan produksi yang menerimanya dalam periode pembayaran yang bersangkutan.
(2) Jemputan/Transport karyawan produksi.
Rata-rata uang transport per hari per karyawan dikalikan dengan jumlah karyawan produksi yang menerima pelayanan antar jemput dalam periode pembayaran yang bersangkutan.

Pert. (3d). Tuliskan Upah Lembur yaitu seluruh upah lembur yang dibayarkam selama periode pembayaran Bila sistem pembayaran mingguan, dengan periode pembayaran tanggal 5 s/d 10, dan tanggal 11 yang jatuh pada hari Minggu digunakan untuk lembur, maka upah lembur tanggal 11 dilaporkan dalam pengeluaran lembur periode tanggal 5 s/d 10.

Pert. (3e). Cukup jelas.

Pert. (4). Bila sistem pembayaran kurang dari satu bulan dan ada premi/upah yang dibayarkan secara bulanan, isikan jumlah pembayaran premi bulanan tersebut pada pert. ini.

E. KETERANGAN PERUBAHAN UPAH.

Bagian ini diisi bila total upah pada bagian D pertanyaan 3e bulan laporan sekarang naik atau turun melebihi 20% dibandingkan dengan bulan laporan sebelumnya.

F. KETERANGAN KESULITAN PENGISIAN DAFTAR

Jelaskan nomor pertanyaan dan jenis kesulitan yang dialami dalam pengisian daftar ini.

G. LEGALISASI PENGISIAN DAFTAR

Cukup jelas.

ANNEX 1 : KEY CHARACTERISTIC OF WAGE SYSTEMS ADOPTED BY A SELECTED SAMPLE OF MANUFACTURING FIRMS IN JAKARTA (JULY 1989)

INDUSTRY	NO. OF EMPLOYEES		PRODUCTION WORKERS		
	TOTAL	PRODUCTION	EMPLOYEE STATUS	PAYMENT SYSTEMS	REGULAR WAGE COMPONENTS
1. MOTOR VEHICLE ASSEMBLY (PMDN)	450	± 350	Harian Kontrak	Tengah bulanan Tengah bulanan	Gaji pokok, uang makan, uang transport Gaji pokok, uang makan, uang transport
2. WEARING APPAREL (PMDN)		*	Harian (tetap & lepas) Borongan Harian lepas	Dua mingguan - -	Gaji pokok, makanan, uang transport Upah minimum + Rp. 450,- atau hasil x harga per satuan + Rp. 450,-
3. PLASTICS (PMDN)	179	156	Bulanan Harian tetap	Bulanan Mingguan	Gaji pokok, uang makan, uang hadir, tunjangan jabatan
4. WAVING (PMDN)	750	600	Harian Borongan	Mingguan	Gaji pokok, uang makan, uang transport, makan (natura) premi hadir mingguan, premi target Upah minimum + transport + premi atau hasil x harga + transport + premi
5. SPINNING WEAVING (PMDN-Former PMA)	1500	± 1100	Harian tetap	Bulanan	Gaji pokok, uang makan, premi hadir, tunjangan keluarga (laki-laki), tunjangan anak (janda), uang transport & jemputan
6. PHAMACEUTICALS (PMA)	256	96	Kontrak bulanan Harian	Bulanan	Gaji pokok, makan (natura), uang transport premi shift, health reimbursement
7. WEARING APPAREL (PMDN)	421	400	Harian tetap Borongan	Tengah bulanan Tengah bulanan	Upah minimum, atau hasil x harga + premi hadir (bulanan) + tunjangan kerajinan
8. TYRES (PT)	60	45	Harian	Mingguan	Upah pokok, tunjangan transport, tunjangan makan, tunjangan kerajinan (bulanan)
9. BATIK (BUMN)	63	22	Kontrak (2 th) Borongan (kontrak)	Bulanan Mingguan	Upah per potong x hasil, uang kesehatan (bulanan) Upah per potong x hasil, uang kesehatan (bulanan)
10. SHIP CONSTRUCTION/ REPAIR (BUMN)	644	300	Bulanan	Bulanan	Upah pokok, tunjangan jabatan, tunjangan kehadiran, tunjangan produksi, premi produksi, makan siang

*) Estimate firm bankrupt and taken over by new enterprise

BIRO PUSAT STATISTIK — SURVEI PENDAPATAN BURUH SEKTOR INDUSTRI

Kewajiban untuk memberikan keterangan statistik dan kerahasiaan data yang dikumpulkan dalam survei ini dijamin oleh Undang-Undang No. 7 tahun 1960 tentang Statistik.

A. **IDENTITAS PERUSAHAAN** : 1. Nama Perusahaan :

2. Nomor Telepon :

3. Alamat Perusahaan/Unit Produksi :

4. (a) Produk/Kegiatan utama :

(b) Jml seluruh karyawan pada 10 Januari :

(c) Tahun mulai produksi :

(d) Persentasi produkse yg diexpor tahun yg lalu (angka perkiraan saja) :

(e) Jumlah shift sehari :

(f) Status usaha : **1.** PMDN **2.** PMA **3.** Negara (BUMN, Persero, dsb.) **4.** Lainnya (sebutkan) : .....

DIISI PETUGAS

Kode Propinsi ☐☐

Kode Kabupaten/Kotamadya ☐☐

Kode ISIC ☐☐☐☐☐

B. **HARI DAN JAM KERJA KARYAWAN PRODUKSI (tanpa lembur)** : **1.** Hari kerja seminggu : ..... **2.** Jam kerja seminggu : .....

BAGIAN C - H HANYA DIISI UNTUK KARYAWAN PRODUKSI DIBAWAH TINGKAT MANDOR/MONTIR

C. **KHUSUS UNTUK BULAN JANUARI**

Perkiraan ciri utama karyawan produksi di bawah tingkat mandor (ISILAH PERKIRAAN SAJA, MISALNYA 20%, 40% DSB.)

1. **UMUR** : Kira-kira berapa persen dari seluruh karyawan **berusia < 25 tahun** .....
2. **PENDIDIKAN** : Kira-kira berapa persen dari seluruh karyawan **berpendidikan SLA +** .....
3. **MASA KERJA** : Kira-kira berapa persen dari seluruh karyawan **telah bekerja < 2 tahun** .....
   Kira-kira berapa persen dari seluruh karyawan **telah bekerja > 10 tahun** .....

D. **TINGKAT UPAH TERRENDAH/TERTINGGI YG DIBAYAR PD KARYAWAN PRODUKSI DIBAWAH MANDOR/MONTIR PD BULAN JANUARI (termasuk tunjangan tetap)**

1. Tingkat upah terendah yg dibayar pada karyawan produksi yang baru — Rp. ..... per .....
2. Tingkat upah tertinggi yg dibayar pada karyawan produksi — Rp. ..... per .....

(SEBUTKAN SATUAN WAKTU)

E. **KOMPONEN UPAH YANG DIBAYARKAN SECARA TERATUR/TETAP SETIAP MINGGU/BULAN KEPADA SEBAGIAN/SEMUA KARYAWAN PRODUKSI DIBAWAH TINGKAT MANDOR/ MONTIR**
(Diisi pd bulan pencacahan pertama saja).

- Gaji pokok ☐
- Tunjangan keluarga ☐
- Tunjangan makan ☐
- Tunjangan transpor ☐
- Tunjangan lain ☐
- Premi hadir ☐
- Premi prestasi/target ☐
- Premi lain ☐

NATURA

- Makan ☐
- Angkutan ☐
- Natura lainnya ☐

Catatan: Isikan centing (√) bila dibayarkan/diberikan; atau silang bila tidak dibayarkan/diberikan.

F. **JUMLAH KARYAWAN PRODUKSI DI BAWAH TINGKAT MANDOR MENURUT STATUS KARYAWAN DAN SISTEM PEMBAYARAN MENURUT DAFTAR UPAH YG MENCAKUP TGL.10 PADA BULAN LAPORAN YANG BERSANGKUTAN**

		JAN.	APRIL	JULI	OKT.	
Harian lepas/kontrak	**Mingguan** **2 mingguan** **2 x sebulan** **Bulanan**					**ISI PADA KOLOM 1 - 4 PADA BAGIAN G**
Borongan	**Mingguan** **2 mingguan** **2 x sebulan** **Bulanan**					
Harian tetap	**Mingguan** **2 mingguan** **2 x sebulan** **Bulanan**					**ISI PADA KOLOM 5 - 8 PADA BAGIAN G**
Bulanan	**2 mingguan** **2 x sebulan** **Bulanan**					**ISI PADA KOLOM 9-12 PADA BAGIAN G**
JUMLAH KARYAWAN PRODUKSI DI BAWAH MANDOR						

G. UNTUK KARYAWAN PRODUKSI DI BAWAH TINGKAT MANDOR : ISILAH KETERANGAN DI BAWAH INI UNTUK PERIODE PEMBAYARAN YANG MENCAKUP TANGGAL 10 PADA BULAN LAPORAN TERSEBUT.	KARYAWAN HARIAN LEPAS/BORONGAN/KONTRAK				KARYAWAN HARIAN TETAP				[illegible]			
	Jan.	April	Juli	Okt.	Jan.	April	Juli	Okt.	Jan.	April	Juli	Okt.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. a. Sebutkan sistem pembayaran upah (ISILAH MINGGUAN DSB. SESUAI JAWABAN PADA BAGIAN F) 1)												
b. Periode pembayaran upah mulai tgl berapa sampai tgl berapa? (misalnya tgl. 6 s/d 12, tgl. 1 s/d 30, dsb.)												
c. Jumlah hari yg dibayar pada periode tsb. di luar hari libur yang digunakan bekerja lembur 2)												
d. Jumlah hari bekerja pada hari libur/Minggu dibayar dgn tarip lembur												
2. JUMLAH KARYAWAN YG MASUK DLM DAFTAR UPAH PADA PERIODE TSB. a. Karyawan produksi (Rekap. dari F, Pria + Wanita)												
b. Karyawan produksi wanita												
3. TOTAL UPAH YG DIBAYAR KPD KARYAWAN PRODUKSI PD PERIODE TSB. a. Upah/gaji pokok (Rp.000)												
b. Upah lainnya yg dibayar tetap dlm bentuk rupiah 3) (Rp.000)												
c. Nilai upah yg diberi secara teratur natura 4) (Rp.000)												
d. Upah lembur (Rp.000)												
e. Jumlah (a + b + c + d) (Rp.000)												
4. (KHUSUS UNTUK PERIODE PEMBAYARAN KURANG DARI SATU BULAN) UPAH/PREMI YANG DIBAYAR PADA AKHIR SETIAP BULAN (Rp.000)												

H. APABILA TOTAL UPAH/GAJI PADA G3.e NAIK ATAU TURUN SECARA MENYOLOK DIBANDING BULAN LAPORAN SEBELUMNYA, APA SEBABNYA
Petunjuk: Bila alasan di bawah ini mempengaruhi variasi tersebut, isikan centing/cek (√).

ALASAN ADA VARIASI DALAM UPAH	Jan.	April	Juli	Sept.
1. Karena variasi dlm produksi musiman/cuaca				
2. Karena variasi dlm produksi non-musiman/order				
3. Banyak hari libur (resmi)				
4. Perusahaan berhenti sementara				
5. Karyawan keluar (sukarela)				
6. Banyak karyawan absen				
7. Upah umum naik				
8. Lainnya				

I. KETERANGAN MENGENAI PENGISIAN

1. Berapa jam diperlukan untuk mengisi formulir ini .....
2. Apakah perusahaan mengalami kesulitan dalam pengisian pada pertanyaan tertentu? Jelaskan masalahnya.

No. Pertanyaan	Kesulitan
(i)	.....
(ii)	.....
(iii)	.....
(iv)	.....

1) Isi M=Mingguan; 2M=Dua Mingguan; ½B=2 x sebulan; B=Bulanan.
2) Tidak termasuk hari libur bekerja yg dibayar dg tarip lembur.
4) Tidak termasuk THR, bonus/insentif tahunan atau kwartalan.
5) Termasuk nilai transpor dan makan yg diberikan setiap hari.

PENJELASAN/PETUNJUK PENGISIAN
KUESIONER PENDAPATAN BURUH

BAGIAN A : IDENTITAS PERUSAHAAN

Perincian 4(a) : Produk Utama Ialah Produk yang Paling besar Sumbangannya Pada Nilai Seluruh Produksi Perusahaan Selama Tahun Tersebut.

Perincian 4(b) : Isikan jumlah seluruh karyawan yang dibayar pada masa pembayaran yang mencakup tanggal 10 pada bulan tersebut.

Seluruh karyawan termasuk :
- eksekutif dan stafnya
- karyawan yang sedang mengikuti training
- karyawan yang sedang sakit dan dibayar
- karyawan sambilan
- karyawan yang sedang cuti dan dibayar

Seluruh karyawan tidak termasuk :
Pensiunan pekerja keluarga tidak dibayar karyawan yang sedang mogok selama periode pembayaran dan karyawan yang sedang cuti dan tidak dibayar.

Perincian 4(c) : Tahun perusahaan mulai produksi pada lokasi yang sekarang ini .

Perincian 4(d) : Ekspor : Persentase dari total produksi yang di ekspor tahun yang lalu hanya diperlukan estimasi/perkiraan saja (misalnya 25%, 40%, 75% dsb).

BAGIAN B : JAM DAN HARI KERJA KARYAWAN BIASA

Jam kerja biasa tanpa pembayaran upah lembur Jumlah hari kerja biasa tanpa pembayaran lembur.

BAGIAN C : CIRI KARYAWAN PRODUKSI

1. Umur, pendidikan, masa kerja : Hanya diperlukan data perkiraan saja kecuali bila perusahaan dapat mengisi data tepatnya dengan mudah dari daftar karyawan/gaji.

2. Karyawan produksi hanya meliputi semua karyawan dibawah tingkat mandor/montir yang dibayar pada daftar upah dalam periode pembayaran pada/bulan pencacahan yang bersangkutan.

Karyawan produksi yang dibayar termasuk :
- semua karyawan yang terlibat langsung dalam proses produksi
- karyawan bukan pengawas/mandor/montir.

Proses produksi antara lain meliputi :
- fabricating (produksi)
- janitorial/pesuruh
- asisten montir
- kepala regu
- repair
- packing
- assembling
- receiving
- processing
- handling

Karyawan produksi tidak termasuk :
- mandor/pengawas
- product development
- klinik
- eksekutif
- pembelanjaan/penjualan
- mekanik/montir
- warehousing/storage
- karyawan bagian keuangan
- trucking
- kredit
- kafetaria
- jaga/keamanan
- pembukuan bagian produksi
- urusan pegawai
- shipping
- maintenance
- instalasi
- karyawan pembukuan dan administrasi lainnya yang tidak berkaitan dengan proses produksi

BAGIAN D : TINGKAT UPAH TERENDAH DAN TERTINGGI (hanya untuk bulan January)

Upah terendah : Termasuk semua tunjangan tetap dan premi yang dibayarkan setiap minggu/2 minggu/bulan kpd karyawan yg baru masuk dan telah melewati masa percobaan.

Upah tertinggi : Upah paling tinggi

BAGIAN E : KOMPONEN GAJI/UPAH

Hanya perlu diberi tanda cek bila dibayar atau diberikan kepada sebagian atau semua karyawan produksi dibawah tingkat mandor/montir. Bila tidak dibayar atau diberikan diberi silang (X), jangan dibiarkan kosong.

BAGIAN F : JUMLAH KARYAWAN MENURUT STATUS DAN SISTEM PEMBAYARAN

Status karyawan : Kontrak - meliputi kontrak kerja kurang dari 6 bulan; Bila lebih dari 6 bulan dimasukkan sebagai karyawan tetap (harian borongan atau bulanan)

Harian tetap - Termasuk karyawan harian tetap yang bekerja pada perusahaan tersebut atau karyawan harian yang sedang menjalankan masa percobaan untuk diangkat menjadi karyawan tetap. Status harian biasa diartikan harian tetap kecuali setiap waktu karyawan dapat dihentikan tanpa pembayaran pesangon bulanan. Bila hal ini berlaku, karyawan tersebut harian lepas.

Sistem Pembayaran Upah : Periode bekerja yg menjadi dasar utk perhitungan gaji/upah karyawan.

BAGIAN G : HARI BEKERJA, JUMLAH KARYAWAN DAN UPAH

Perincian 1a : Yaitu sistem pembayaran mingguan/2 mingguan/tengah bulanan/bulanan.

Perincian 1b : Meliputi setiap hari dr awal periode sampai akhir periode pembayaran termasuk hari Minggu apabila periode tersebut mulai atau berakhir pada hari Minggu.

Bila sistem pembayaran kurang dari dari sebulan tanggal 10 pada bulan pencacahan data menjadi patokan untuk menentukan periode pembayaran.

Contoh : a. Sistem pembayaran mingguan tanggal 10 jatuh pada hari Rabu :
Periode pembayaran ialah Senin tanggal 8 s/d Minggu tanggal 14.

b. Sistem pembayaran mingguan tanggal 10 jatuh pada hari Minggu :
Periode pembayaran ialah Senin tanggal 4 s/d Minggu tanggal 10.

Perincian 1c : Jumlah hari yang dibayar selama periode pembayaran diluar hari libur/Minggu bilamana karyawan bekerja pada hari tersebut.

Jumlah hari yang dibayar diluar hari lembur termasuk :
(i) hari biasa bekerja dan dibayar
(ii) hari tidak bekerja (hari libur perusahaan tutup) tetapi karyawan masih dibayar.

Jumlah hari yang dibayar diluar hari lembur tidak termasuk :
(i) hari libur/Minggu bekerja yang seluruhnya dibayar dengan tarip lembur
(ii) hari perusahaan tutup dan karyawan tidak dibayar

Perincian 2a : Jumlah karyawan dicatat pada BAGIAN E.

Perincian 2b : Jumlah karyawan produksi wanita dibawah tingkat mandor/montir (termasuk karyawan borongan/harian lepas harian tetap dan bulanan).

Perincian 3 : **UPAH/GAJI YANG DIBAYAR** : Meliputi semua upah/gaji yang dibayar secara tetap/reguler pada periode pembayaran.

Upah/gaji tidak termasuk pembayaran :
- Bonus kecuali dibayar secara reguler setiap periode pembayaran
- Tunjangan lebaran/perkawinan/khitanan
- Uang penggantian biaya pengobatan dokter yang dibayar pada orang sakit
- Tunjangan perumahan
- Tunjangan pakaian kerja

Perincian 3a :
- Isikan jumlah upah/gaji dasar/yang dibayar selama periode pembayaran
- Apabila perusahaan tidak membedakan (memisahkan dalam pembukuan) antara gaji dasar dan tunjangan tetap (princian 4b) seluruh upah/gaji diisi pada perincian 4a.
- Upah borongan diluar premi termasuk upah pokok.

Upah/gaji dasar terdiri dari :
- Upah/gaji pokok sebelum dipotong dengan pembayaran asuransi, pajak, iuran wajib, dan potongan lainnya. Termasuk upah cuti dan upah sakit.
- Upah/gaji dasar tidak termasuk tambahan pembayaran tunjangan reguler lainnya seperti uang transport/makan dsb.

Perincian 3b : Upah/gaji lainnya : Isikan nilai upah/gaji lainnya (termasuk nilai barang) yang dibayar secara tetap setiap periode pembayaran.

Upah/gaji lainnya yang dibayar secara reguler dalam periode pembayaran termasuk :
- uang transport
- uang hadir
- tunjangan kemahalan

- bonus reguler seperti insentif bulanan tapi tidak termasuk bonus lebaran atau tahunan.

Perincian 3c : - Upah dalam bentuk natura tidak termasuk pakaian kerja perumahan/asrama.
- Pembayaran dalam bentuk natura termasuk makan dan transpor dan dinilai dalam rupiah. Cara mengkonversikannya ialah seperti berikut :

(i) Makan : Dinilai dari perkiraan harga pasaran setempat makan di warung dengan lauk yang serupa dikalikan jumlah karyawan yang menerima makan setiap hari selama periode pembayaran.

(ii) Angkutan/Transport yang tersedia bagi karyawan :
- Didasarkan pd tunjangan transport yg dibayar rata-rata sehari utk karyawan produksi yg tdk diantar jemput dikalikan jumlah karyawan yang diantar jemput dan jumlah hari penjemputan .
- Bila tidak ada penjemputan karyawan diambil biaya transport umum rata rata se hari per karyawan untuk dasar perhitungan nilai transport selama periode pembayaran.

Perincian 3d : Lembur termasuk seluruh upah/gaji lembur yg dibayar selama periode pembayaran.

Perincian 3e : Penjumlahan dari semua komponen upah/gaji yang diisi pada 4a - 4d.

Perincian 4 : Upah/Premi yang dibayar pada akhir setiap bulan untuk karyawan dengan periode pembayaran kurang dari satu bulan.

Contoh : Karyawan dibayar mingguan tetapi menerima premi prestasi/hadir pada akhir bulan

BAGIAN H : VARIASI DALAM TOTAL UPAH

1. Isikan hanya kalau kenaikkan secara menyolok dlm total upah ialah kenaikkan lebih dr 10%.
2. Isikan tanda cek/centing (√) hanya untuk alasan yang mempengaruhi upah pada bulan yang bersangkutan dibandingkan bulan pencacahan sebelumnya.

Contoh : Misalnya total upah naik banyak pada bulan April dibanding bulan Januari karena banyak order untuk bulan April Isikan Tanda (√) pada kolom untuk bulan April pada baris kedua (karena variasi dalam produksi non musiman/order).

Bagian I : KETERANGAN MENGENAI PENGISIAN

Pengisian pada bagian ini akan sangat menunjang pelaksanaan survei ini agar dapat disusun pertanyaan yang relatif mudah difahami perusahaan.

RAHASIA

BIRO PUSAT STATISTIK

SURVEI PENDAPATAN KARYAWAN SEKTOR INDUSTRI

Kewajiban untuk memberikan keterangan statistik dan kerahasiaan data yang dikumpulkan dalam survei ini dijamin oleh Undang-Undang No. 7 tahun 1960 tentang Statistik

A. IDENTITAS PERUSAHAAN

1. Nama Perusahaan : .....
2. Nomor Telepon : .....
3. Alamat Perusahaan/Unit Produksi : .....
   .....
4. (a) Produk/Kegiatan utama : .....
   (b) Jumlah seluruh karyawan pada 10 Januari : .....
4. (c) Tahun mulai produksi : .....
   (d) Persentase nilai produksi yang diekspor tahun yang lalu (angka perkiraan saja) : .....
   (e) Jumlah shift/plug sehari : .....
   (f) Status modal : 1. PMDN 3. Negara (BUMN, Persero, dsb.)
   2. PMA 4. Lainnya (sebutkan) .....

DIISI PETUGAS

Kode Propinsi [ ][ ] Kode Kabupaten/Kotamadya [ ][ ]

Kode ISIC [ ][ ][ ][ ][ ]

B. KETERANGAN UMUM PERUSAHAAN (HANYA UNTUK BULAN JANUARI DAN KARYAWAN PRODUKSI DIBAWAH TINGKAT MANDOR/MEKANIK)

1. HARI DAN JAM KERJA BIASA TANPA LEMBUR
   a. Hari Kerja Seminggu : ..... hari
   b. Jam Kerja Seminggu : ..... jam

2. TINGKAT UPAH TERENDAH/TERTINGGI. Termasuk tunjangan tetap (Sebutkan per satuan waktunya)
   (a) Tingkat upah terendah untuk karyawan produksi baru Rp .....per.....
   (b) Tingkat upah tertinggi untuk karyawan produksi Rp .....per.....

3. CIRI UTAMA KARYAWAN PRODUKSI (ISILAH PERKIRAAN SAJA, MISALNYA 24%, 47% DSB)
   (a) UMUR : Karyawan yang berusia di bawah 25 tahun ..... %
   (b) PENDIDIKAN : Karyawan yang berpendidikan di atas SLTA ..... %
   (c) MASA KERJA : Karyawan yang telah bekerja kurang dari 2 tahun ..... %
   Karyawan yang telah bekerja lebih dari 10 tahun ..... %

4. KOMPONEN UPAH YANG DIBAYARKAN SECARA TERATUR/TETAP SETIAP MINGGU/DUA MINGGU/TENGAH BULAN/BULAN TERHADAP SEBAGIAN BESAR/SELURUH KARYAWAN PRODUKSI DIBAWAH MANDOR/MEKANIK.
   Isikan tanda V pada kotak yang sesuai, bila ada.

   DALAM BENTUK UANG

   1. Gaji pokok ☐ 2. Tunjangan keluarga ☐ 3. Tunjangan makan ☐ 4. Premi hadir ☐
   5. Tunjangan lain ☐ 6. Tunjangan transpor ☐ 7. Premi prestasi/target ☐ 8. Premi lain ☐

   DALAM BENTUK NATURA

   1. Makan ☐ 2. Angkutan ☐ 3. Natura lainnya ☐

C. KETERANGAN SISTEM PEMBAYARAN

JUMLAH KARYAWAN PRODUKSI DIBAWAH TINGKAT MANDOR/MEKANIK MENURUT DAFTAR UPAH YANG MENCAKUP TANGGAL 10 PADA BULAN LAPORAN YANG BERSANGKUTAN

STATUS KARYAWAN	SISTEM PEMBAYARAN	JANUARI	APRIL	JULI	OKTOBER	
Harian lepas/kontrak/ Borongan	Mingguan	.....	.....	.....	.....	Lanjutkan ke kolom 2/3/4/5 pada BAGIAN D
	2 Mingguan	.....	.....	.....	.....	
	2 x sebulan	.....	.....	.....	.....	
	Bulanan	.....	.....	.....	.....	
	sub jumlah	.....	.....	.....	.....	
Harian Tetap	Mingguan	.....	.....	.....	.....	
	2 Mingguan	.....	.....	.....	.....	
	2 x sebulan	.....	.....	.....	.....	

STATUS KARYAWAN	SISTEM PEMBAYARAN	JANUARI	APRIL	JULI	OKTOBER	
Harian tetap	Bulanan	.....	.....	.....	.....	Lanjutkan ke kolom 6/7/8/9 pada BAGIAN D
	Sub Jumlah	.....	.....	.....	.....	
Bulanan	Mingguan	.....	.....	.....	.....	Lanjutkan ke kolom 10/11/12/13 pada BAGIAN D
	2 Mingguan	.....	.....	.....	.....	
	2 x sebulan	.....	.....	.....	.....	
	Bulanan	.....	.....	.....	.....	
	Sub jumlah	.....	.....	.....	.....	

SEMUA KETERANGAN DI BAWAH INI DIISI UNTUK SISTEM PEMBAYARAN YANG MENCAKUP TANGGAL 10 PADA BULAN LAPORAN SEBAGAIMANA TERSEBUT PADA PERINCIAN NO 1.b DI BAWAH INI.	KARYAWAN HARIAN LEPAS/BORONGAN/KONTRAK				KARYAWAN HARIAN TETAP				KARYAWAN BULANAN			
	Jan.	April	Juli	Okt.	Jan.	April	Juli	Okt.	Jan.	April	Juli	Okt.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1.a. Sistem Pembayaran Upah. Disalin dari bagian C. 1)												
b. Periode pembayaran upah yang mencakup tanggal 10. Misal tgl 4 s/d 10, tgl 6 s/d 12												
c. Jumlah hari kerja biasa di luar hari kerja lembur pada hari libur/Minggu												
d. Jumlah hari kerja lembur pada hari libur/Minggu.												
2.JUMLAH KARYAWAN YANG MASUK DALAM DAFTAR GAJI/UPAH a. Karyawan produksi (rekap dari C, pria + wanita)												
b. Karyawan produksi wanita.												
3.JUMLAH UPAH YANG DIBAYAR KEPADA KARYAWAN PRODUKSI PADA PERIODE TERSEBUT PADA PERINCIAN 1.b a. Upah/gaji pokok (Rp 000)												
b. Upah lainnya yang dibayar secara teratur dalam bentuk uang 2) (Rp 000)												
c. Nilai upah yang diberikan secara teratur dalam bentuk natura 3) (Rp 000)												
d. Upah lembur (Rp 000)												
e. Jumlah (a + b + c + d) (Rp 000)												
4.KHUSUS UNTUK SISTEM PEMBAYARAN KURANG DARI SATU BULAN, UPAH/PREMI YANG DIBAYARKAN SEKALI SETIAP BULAN (Rp 000)												

E. KETERANGAN PERUBAHAN UPAH

ISIKAN TANDA V PADA KOLOM & BARIS YANG SESUAI, BILA TOTAL UPAH GAJI PADA D3.e NAIK/TURUN MENCOLOK DIBANDING BULAN LAPORAN SEBELUMNYA, SEBAB KENAIKAN/PENURUNAN TOTAL UPAH/GAJI	JANUARI	APRIL	JULI	OKTOBER
a. Kegiatan produksi musiman/terpengaruh iklim/cuaca	.....	.....	.....	.....
b. Kegiatan produksi terpengaruh order/non musiman	.....	.....	.....	.....
c. Banyak hari libur resmi yang tak bekerja	.....	.....	.....	.....
d. Perusahaan berhenti sementara	.....	.....	.....	.....
e. Karyawan keluar secara sukarela atau ada PHK	.....	.....	.....	.....
f. Karyawan mogok kerja dan tidak dibayar	.....	.....	.....	.....
g. Upah umum atau upah per satuan naik atau turun	.....	.....	.....	.....
h. lainnya(sebutkan).....	.....	.....	.....	.....

F. KETERANGAN KESULITAN PENGISIAN DAFTAR.

KESULITAN YANG DIALAMI PERUSAHAAN DALAM MENGISI KUESIONER INI. BILA ADA		
	Pertanyaan bagian, nomor.	Jenis kesulitan
a.	.....	.....
b.	.....	.....
c.	.....	.....
d.	.....	.....
e.	.....	.....
f.	.....	.....

Catatan
1). Diisi M = Mingguan 2M = Dua mingguan
1/2 B = Tengah bulana B = Bulanan
2). Tidak termasuk THR, Bonus / insentif tahunan / kwartalan
3). Termasuk nilai transpor dan makan yang diberikan tiap hari

G. LEGALISASI PENGISIAN DAFTAR.
Daftar ini diterima oleh perusahaan pada tanggal ..... diisi selama ..... jam
Dikembalikan kepada petugas tgl .....

Pejabat perusahaan pemberi keterangan

Bubuhi cap perusahaan,jabatan.....

Petugas pencacah

NIP : 34

Petugas pemeriksa

NIP : 34