TRENDS IN WAGE GOODS PRICES AND COST OF LIVING OF CASUAL WORKERS IN SHILLONG.

SK Mishra
JW Lyngskor
Dept. of Economics
NEHU, Shillong.

1. Introduction: The present study aims at an investigation into the prices of wage goods and the cost of living of casual wageworkers in Shillong, the capital city of Meghalaya, India. Labourers are defined as a collection of workers exchanging their labour power for material – usually monetary - rewards awarded by their employers, who use the labour power for productive activities or for final consumption. Casual labourers (casual workers or casual wageworkers) are those workers who work for a very short duration (for a few hours, a day or at most a few days under a single contract) for an employer, and who are (usually) paid for their labour either at the end of the contract or at the end of a day. In the agriculture sector, casual labourers are employed at every stage – tilling and preparing the land for sowing to harvesting and marketing the products. In manufacturing sector, most of the factories employ skilled labourers or white-collar labourers. Intermediate goods that need application of unskilled menial or even semi-skilled labour are often entrusted to contractors who work for the factory. These contractors employ casual labourers at the jobs. In construction, transport, commerce and other service sectors also a large number of casual workers are employed.

Casual workers are often unskilled or semi-skilled; they usually do not own any other factors of production (such as land, capital or implements needed to perform the job) except their labour power; they earn their livelihood by selling their labour power and often regenerate their labour power by '*investing',* so to say*,* a very large part of their wage earning. In case of a casual labourer, the dichotomy of consumption and investment collapses into a single category. A casual worker's household does not usually store the kitchen goods or provisions, the wage earning of the day is spent on purchase of the provisions needed for the dinner and the next day. That gives the name '*wage goods*'.

Due to low level of consumption, casual labourers are often poor performers – their efficiency is low. The market forces often impose on them the vicious circle of inefficiency – low wage rates – deficient consumption - inefficiency. **Myrdal** (1972, p. 64) wrote: "*In fact, low incomes probably hampers development more by keeping down consumption than by limiting savings, because inferior living conditions reduce labour efficiency. Strangely, this point is overlooked in most comments concerning the effect of low income levels in South Asia.*"

It does not require much to conjecture that the **subsistence theory** is an appropriate theory to determine the wage rates of casual workers in our study area. Daily wages varying around Rs. 50, four to five family members to support and precarious living and housing conditions – poverty aggressively shameless and nude - suggest even to a casual onlooker that casual workers may not earn more than the subsistence wage. That presumed, it would naturally entail poor or no bargaining power with the casual

workers. Since they are not (or possibly they cannot be) unionized, they will hardly have any bargaining power. It may be found so after an empirical investigation. Consequently, the exploitation theory may always be invoked, if desired.

There could be a theoretical explanation of very low or subsistence wages of casual workers in a city like Shillong. At low levels of income, in labour markets where unemployment exists due to efficiency wages, the nutritional status (e.g.. body mass) of workers may be very sensitive to the wages paid. In particular, low wages paid today may severely undermine nutritional status in the future and reduce productivity. In casual labour markets, the probability of employing the same worker again in the future may be quite low, so maintenance of the health and efficiency of casual workers is not a concern or interest of the casual employer. If all the employers do not take full account of the impact of their wages on nutritional status, a vicious circle of low nutritional status, low wages and low productivity may start and perpetuate. This may be illustrated by a simple example. Suppose workers have a reservation wage of Rs. 25 per day (that is, they will refuse to work if paid below that). Suppose the minimum wage to maintain their nutritional status is Rs. 35. The current value of their work effort is Rs. 50. However, if they are paid less than Rs. 35 then their nutritional status will deteriorate, and in the future their productivity will fall to Rs. 35. Suppose there are two employers (E_1 and E_2) and that there is a random matching of workers with employers. This means that tomorrow they will hire one of the workers that they hire today with probability 0.5. The employers effectively choose whether to pay the low wage of 25 (which is just enough to hire the worker), or the high wages of Rs. 35 which will maintain their nutritional status. Consider the two-period pay off to E_1 :

If E_1 pays ***w*** = Rs. 35, he earns a surplus of 50-35 = Rs. *15* today,
plus 50-25 = Rs. 25 tomorrow, total for today and tomorrow = **Rs. 40**, if E_2 pays the high wage
or 50/2 +35/2 –25= Rs. 17.50, total for today and tomorrow = Rs. **32.50**, if E_2 pays the low wage.

If E_1 pays ***w*** = Rs. 25, he gets 50-25 = Rs. 25 today,
plus 50/2+35/2-25 = Rs. 17.50 tomorrow, total for today and tomorrow = Rs. 42.50, if E_2 pays the high wage,
or 35-25 = Rs. 10, total for today and tomorrow = Rs. 35, if E_2 pays the low wage.

Both the employers are absolutely free to decide their action irrespective of what the other chooses to do. The pay-off matrix for this game is, therefore, given by:

Table: 1(i): Hypothetical Pay-off Matrix of Employers of Casual Workers

		E2	
		W = 35	**W = 25**
E1	W = 35	40,40	32.50,42.50
	W = 25	42.50,32.50	35,35

This is a classic Prisoner's dilemma (or free rider problem). The ***Nash equilibrium*** is for both employers to pay the low wage because neither has an incentive to increase their wage if the other does not. The superior outcome (both in terms of wages

and their own overall profits) is to pay the high wage. However, each employer always wants to deviate by paying the lower wage if he knows that the other is paying the high wage. If this situation is repeated over time continuous degradation of nutritional status would occur with both employers and workers ending up worse off. With an increase in the number of employers, the equilibrium will become stronger. This illustration explains not only the low wage rates of the casual workers but also the usual dissatisfaction of the employers over the efficiency of casual workers and underbidding their wages whenever possible.

The **ILO Report** (1996) records that agricultural wageworkers spent as much as 70 per cent of their incomes for food. A subsistence wage, defined as an hourly wage sufficient to buy 1 kilogram of the lowest-priced staple cereal, was found lacking in 40 per cent of sample countries. This means, in effect, that the working time required to obtain this kilogram of cereal "ranged from less than 5 minutes (in Sweden) to over six hours (in Central African Republic), with the median working time being 37 minutes, which corresponds to the position of India. In five countries, mostly in Asia and Africa, the working time was over 3 hours.

In analyzing the casual labour market in Shillong we have seen that in case of the general casual labour market, the supply curve is almost parallel to the horizontal (wage rate) axis while the demand curve is steeply falling. In case of unskilled casual wageworkers the supply curve is gently rising in response to the increase in the wage rate of unskilled casual wageworker. These are the supply and demand curves faced by a typical casual wageworker household. It is to be noted that in general a casual wageworker household supplies around 45 labour-days per month. We have found that an average household supplies two (1.9 when not rounded off) casual wageworkers, each working for about 22.5 days in a month. With the average household size (of the casual wageworker) being 5.4 persons, the dependency ratio is about 3.4 persons per 2 workers or 1.7 persons per wageworker.

We have found that wage rate (of a general casual wageworker) is about Rs. 60 per day, which in case of an unskilled worker is about Rs. 47 only. With each of the two working members getting some job for 22.5 days in a month, an average casual wageworker household would earns Rs. 2700 (=22.5*2*60) per month, which is an upper bound on the wage earnings. This works out to be Rs. 500 per capita per month. More exactly, average earning would be Rs 2565 (Rs. 475 per capita per month). For an average unskilled casual wageworker household these figures are Rs. 2000 and Rs. 372 (per capita).

At this juncture, it is worthwhile to invoke the standard (and internationally accepted) definition of '*subsistence wage*'. **ILO** (1996) defines it as *the hourly wage sufficient to buy* 1 *(one) kilogram of the lowest-priced staple cereal*. As ILO notes, the median time to earn this subsistence wage (internationally) is 37 minutes and that is the time in India as well. From our survey we have that price of 1 kilogram of rice (the staple cereal in the study area) varied between Rs. 8.5 to Rs. 10.0 during 1996-1998. The range was Rs. 10 to 11.5 in 1998-2000. The upper limit of daily wage rates of unskilled casual

workers was Rs. 50. Work hours (per day) were 7 to 8 hours. From these figures, the hourly wage rate works out to be Rs. 7.0 or less, which cannot buy 1 kilogram of rice. Additionally, casual labourers in Shillong have no claim to ILO's Social Security (Minimum standard) Convention, 1952 (that is, medical care, sickness and maternity benefits, family benefits, unemployment benefits, employment injury, invalidity and survivors' benefits, and old-age benefits). Thus, casual wageworkers in Shillong earn only a subsistence wage.

2. The Data Base: Data on the prices of wage goods were collected from the Bara Bazar, Shillong, during the period November 1996 to Feb. 2000. With a few exceptions, price data for 33 commodities (belonging to the wage goods category) were collected twice a month, which later on were used to construct average monthly prices. Data on two types of prices were collected, the low prices and the high prices. It is a common experience that there is some variation in the prices quoted for various commodities that a consumer purchases. Variations are due to qualitative differences in the commodities being sold in different shops. Further, most of the shopkeepers as well as the buyers expect and practice haggling and negotiation, since the prices are not fixed. Prices vary according to location, size, ownership etc. as well. Hence, it was considered useful to record two prices (the lowest and the highest prices) among the different prices quoted for any particular commodity in different shops.

Data were collected on the prices of the following commodities of everyday consumption by the casual wage workers :(1) Rice, (2) Dal, (3) Atta, (4) Sugar, (5) Tea, (6) Potatoes, (7) Onion, (8) Mustard oil, (9) Fresh fish, (10) Dry fish, (11) Beef, (12) Pork, (13) Mutton, (14) Cabbage, (15) Tomatoes, (16) Brinjals, (17) Bitter Gourd, (18) Carrot, (19) Cauliflower, (20) Beans, (21) Radish, (22) Turnip, (23) Rai leaves, (24) Mustard leaves, (25) Squash, (26) Bhindi, (27) Chillies, (28) Cigarettes, (29) Biri, (30) Pan leaves, (31) Betel nuts, (32) Charcoal, (33) Kerosene oil.

Prices of fresh fish and dry fish were averaged to obtain the prices of '*fish*'. Similarly, prices of vegetables - cabbage through chillies (in the list above) – were averaged to obtain prices of '*green vegetables*'. '*Fuel'* prices were obtained by a weighted average of charcoal and kerosene oil prices with weights 0.4 and 0.6 respectively. Similarly, "kwai" prices were obtained by a weighted average of Pan leaf and betel nuts prices with weights 0.3 and 0.7 respectively. By this artifact, finally we had the following commodities: (1) Rice, (2) Dal, (3) Atta, (4) Sugar, (5) Tea, (6) Fish, (7) Beef, (8) Mutton, (9) Pork, (10) Potatoes, (11) Onion, (12) Green Vegetables, (13) Mustard oil, (14) Kwai (Pan leaves and betel nut), (15) Cigarettes, (16) Biri, (17) Fuel We also observe that pork and mutton have prices very close to each other and thus they may be averaged to obtain '*meat*' prices.

3. Analysis of Components of Movement in Prices: For wage goods is a collective name of a basket of several goods purchased by the casual wage workers and over a period of time the prices of different constituent commodities of this basket vary differently, it would not be possible to gauge the nature and pattern of the overall movement in prices unless we use some artifact for this purpose. To analyze the movement in prices of wage goods we must therefore make some composite price indices by some sort of linear combination of the original prices. For this purpose, we take low as well as high prices of seventeen major representative commodities to analyze the components of movement in prices of wage goods in Shillong. Almost ninety percent of the daily consumption expenditure incurred by casual wageworker is spent on these commodities.

Construction and Identification of Factor Indices of Prices of Wage Goods: We apply Factor Analysis to analyze the components of movement in prices of the goods referred to above and extract three factors. Among the three factors derived, the first factor most closely relates to trends in the movements of prices. The second factor is likely to measure a cycle. It has been observed since the olden days that during summer prices are lower (while the cost of living of labourers is lower) and during the winters the prices are higher. However, the abnormal and sudden rise in the index during July-September 1998 attaining the peak in the winters of 1998-99 followed by an equally violent nose dive afterwards reminds us of the months during which the prices of several wage goods (onion, potato, mustard oil, etc.) skyrocketed to instill shocks of terror among the minds to the people in general and the labourers in particular. The third factor closely resembles three-year cycles, the shortest among the cycles that are common in agricultural products. It is to be noted that most of the wage goods are of an agricultural origin.

Table 3(i): Percentage Explanation of Variations in Prices by the Factors

Lower Prices				Higher Prices			
F	Lambda	% Variation explained	Cumul % var explained	F	Lambda	% Variation explained	Cumul % var explained
1	8.246	48.504	48.504	1	8.298	48.814	48.814
2	3.272	19.244	67.748	2	3.108	18.281	67.094
3	2.017	11.863	79.611	3	1.981	11.655	78.749

Trends in Wage Goods Prices : To simplify the trend component in the wage goods prices we apply regression analysis on Factor-I (Score vector) as a dependent variable and time (measured in months, starting with Nov.-Dec. 1996 =1) as the explanatory variable. The estimated parameters/statistics regarding the same are presented in table 3(ii). The exercise is carried out for low as well as high prices. For both the prices (low and high) the model fits very well.

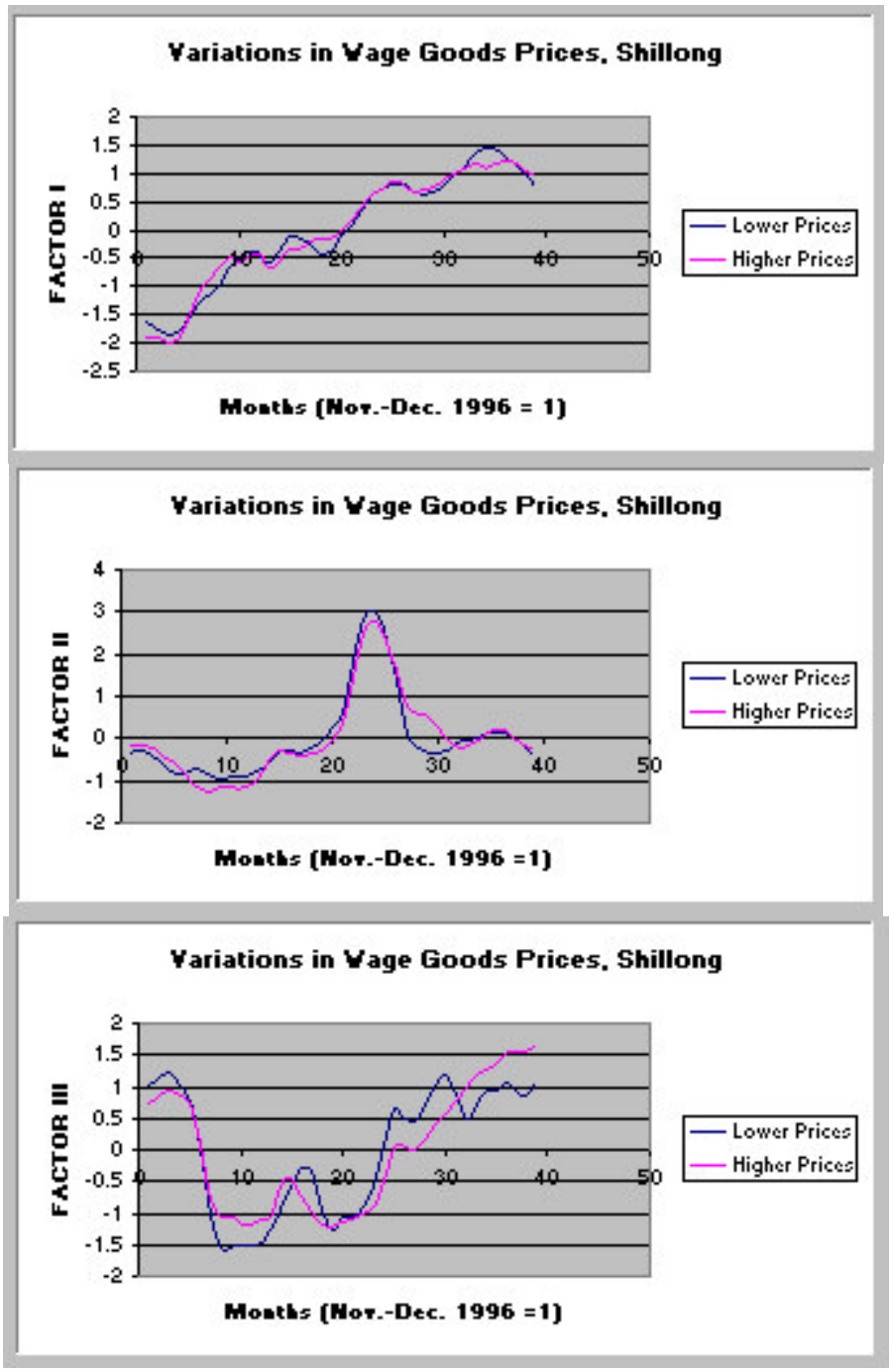
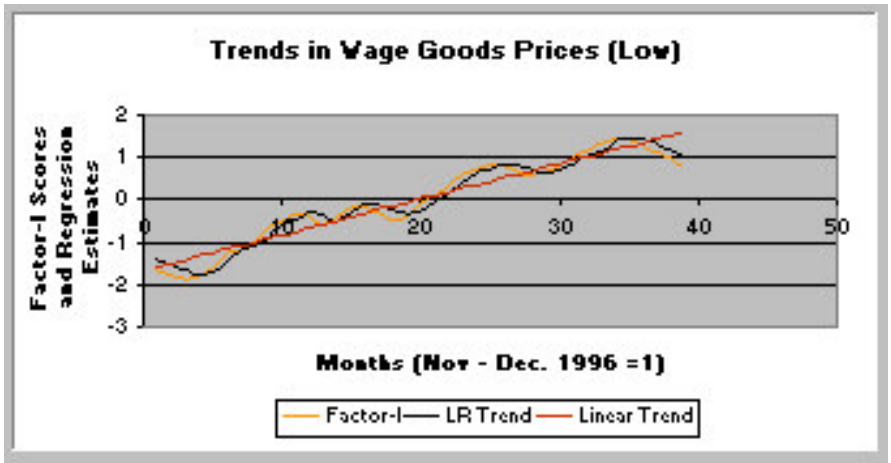


Table 3(ii): Linear Regression Analysis of Factors of Prices of Wage Goods

Factor-I (Low)		*Coefficient*	*Std. Err*	*Beta*	*t value*	*Sig.*
$R^2 = 0.918$	(Constant)	-1.681	.095		-17.761	.000
F = 415.36	MONTH	0.08404	.004	.958	20.380	.000
Factor-I (High)		*Coefficient*	*Std. Err*	*Beta*	*t value*	*Sig.*
$R^2 = 0.918$	(Constant)	-1.681	.095		-17.751	.000
F = 414.90	MONTH	0.08404	.004	.958	20.369	.000

We have also regressed Factor-I (Score vector) on time (month) and lagged value of Factor-I, with a time lag of one month. The estimated parameters/statistics regarding the same are presented in table 3(iii). The exercise is carried out for low as well as high prices. We observe that when the lagged endogenous variable (f_{1t-1}) is used as an explanatory variable to explain variations in the current endogenous variable (f_{1t}), the time variable (month = m_t) loses statistical significance. Therefore, this alternative model, although quite powerful for predictive purposes, would not describe trends in the prices of wage goods in the period under study.



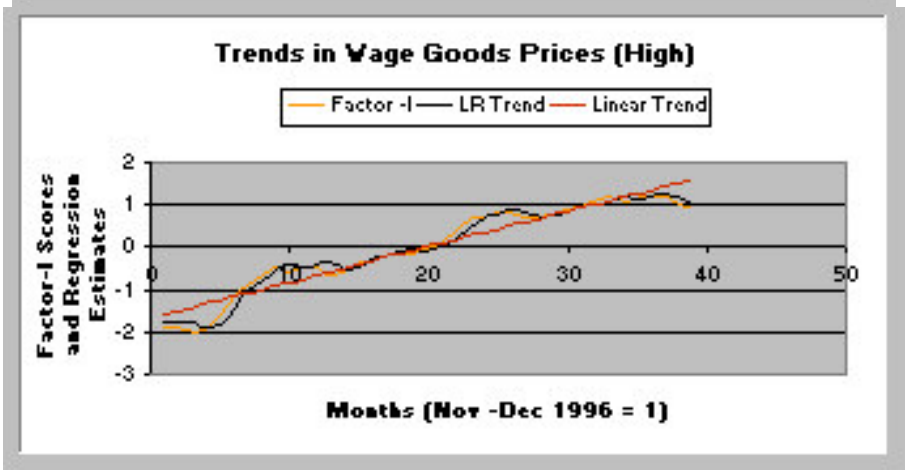


Table 3(iii): Lagged Regression Analysis of Factors of Prices of Wage Goods

Factor-I (Low)		Coefficient	Std. Err	Beta	t value	Sig.
$R^2 = 0.975$	(Constant)	0.03033	.195		.156	.877
F = 711.72	Factor-I$(L)_{t-1}$	0.955	.105	.974	9.131	.000
	MONTH	0.001252	.009	.014	.134	.894

Factor1$(L)_{t-1}$ = Factor-I Score (L) of one MONTH prior to Factor-I Score1 $(L)_t$

Factor-I (High)		Coefficient	Std. Err	Beta	t value	Sig.
$R^2 = 0.982$	(Constant)	0.07123	.160		.444	.660
F = 992.55	Factor-I$(H)_{t-1}$	0.960	.084	.992	11.379	.000
	MONTH	-8.347E-05	.008	-.001	-.011	.991

Factor1$(H)_{t-1}$ = Factor-I Score (H) of one MONTH prior to Factor-I Score $(H)_t$

Cyclical Variations in Wage Goods Prices : We have seen that Factor-II captures some sort of cyclical variations in the wage goods prices. To explain variations in Factor-II, we use two explanatory variables, Sin(month) and Cos(month) since we visualize that the cycle may well be captured by the two sinusoidal transforms of linear time variable (month). We have postulated a 36-month cycle. The estimated coefficients of the model are presented in table 3(iv). In case of low prices Sin(month) and Cos(month) are retained as explanatory variables, while in case of high prices, only Sin(month) could be retained. In case of low as well as high prices we observe an abnormal spurt in prices with duration of some 5 to 6 months and a peak around month = 23 or 24 (that is, Aug-Sept. 1998). The fitted cycle, though mildly pulled up by the said hump, retains its smoothness appreciably.

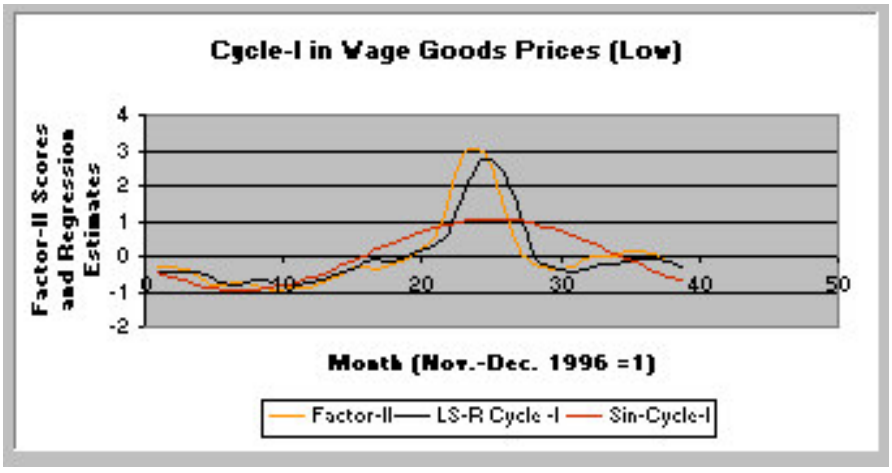
Table 3(iv): Regression Analysis of Factors of Prices of Wage Goods

Factor-II (Low)		Coefficient	Std. Err	Beta	t value	Sig.
$R^2 = 0.505$	(Constant)	0.04718	.116		.405	.688
F = 18.36	SIN3	-0.953	.169	-.663	-5.645	.000
	COS3	-0.312	.160	-.229	-1.950	.059

SIN3 and COS3 mean sine and cosine of a month while a 36-month's cycle is postulated.

Factor-II (High)		Coefficient	Std. Err	Beta	t value	Sig.
$R^2 = 0.642$	(Constant)	3.000E-02	.097		.309	.759
F = 66.25	SIN3	-1.152	.142	-.801	-8.139	.000

We have also regressed Factor-II (Score Vector) on the sinusoidal transforms of linear time (Sine and Cosine of Month) and the lagged value of the endogenous variable (Factor-II$(L)_{t-1}$). The estimated model drops the sin(month) variable. This is true with low as well as high price. The estimated coefficients are presented in table 3(v). The retained variables have significant power to explain variations in Factor-II.



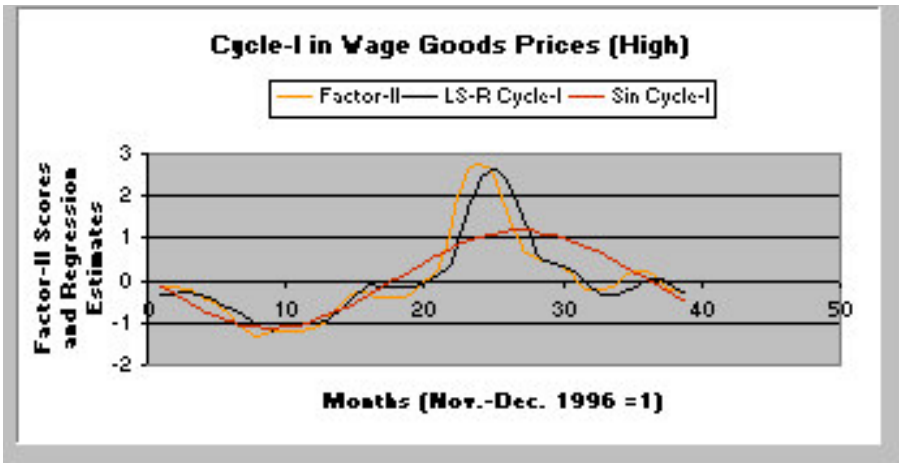


Table 3(v): Regression Analysis of Factors of Prices of Wage Goods

Factor-II (Low)		Coefficient	Std. Err	Beta	t value	Sig.
$R^2 = 0.852$	(Constant)	1.085E-02	.064		.171	.865
F = 103.77	Factor-II$(L)_{t-1}$	0.896	.065	.896	13.832	.000
	COS3	-0.176	.088	-.129	-1.992	.054

Factor-II$(L)_{t-1}$ = Factor-II Score (L) of one year prior to Factor-II Score $(L)_t$

Factor-II (High)		Coefficient	Std. Err	Beta	t value	Sig.
$R^2 = 0.889$	(Constant)	0.01011	.055		.184	.855
F = 144.84	Factor2$(H)_{t-1}$	0.934	.055	.933	16.846	.000
	COS3	-0.186	.076	-.136	-2.455	.019

Factor-II$(H)_{t-1}$ = Factor-II Score (H) of one year prior to Factor-II Score $(H)_t$

Captured by Factor-III, another cycle is discernible in the time series of the wage goods prices in our study. Therefore, we regress Factor-III on the sinusoidal transforms of the linear time variable (sine and cosine of months). Factor-III retains both the transforms as its explanatory variables. The estimated coefficients are presented in table 3(vi).

Table 3(vi): Regression Analysis of Factors of Prices of Wage Goods

Factor-III (Low)		Coefficient	Std. Err	Beta	t value	Sig.
$R^2 = 0.760$	(Constant)	-0.05876	.081		-.724	.473
F = 56.86	SIN3	-0.635	.118	-.442	-5.398	.000
	COS3	1.052	.112	.771	9.426	.000
Factor-III (High)		Coefficient	Std. Err	Beta	t value	Sig.
$R^2 = 0.834$	(Constant)	-0.07895	.067		-1.171	.249
F = 90.39	SIN3	-0.324	.098	-.225	-3.315	.002
	COS3	1.221	.093	.895	13.163	.000

Introduction of lagged exogenous variable (Factor-III$_{t-1}$) is at the cost of dropping cos(month). This is observed for Factor-iii(L) as well as Factor-III(H). The estimated coefficients are presented in 3(vii).

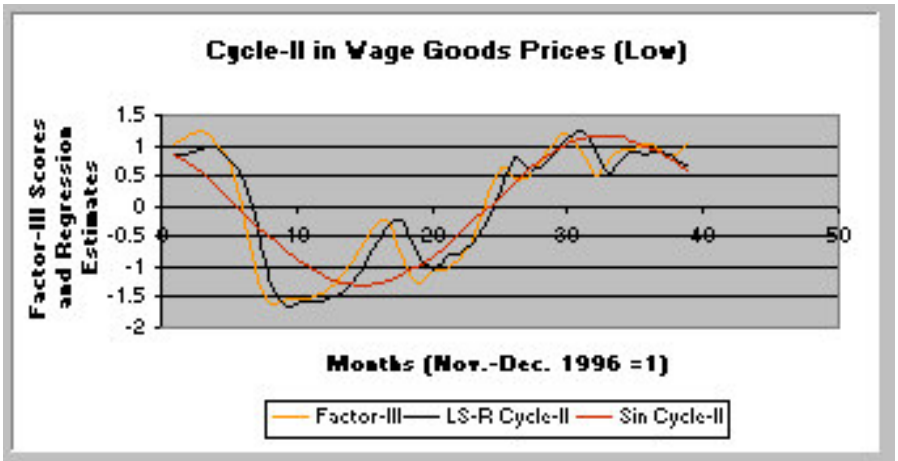
Table 3(vii): Regression Analysis of Factors of Prices of Wage Goods

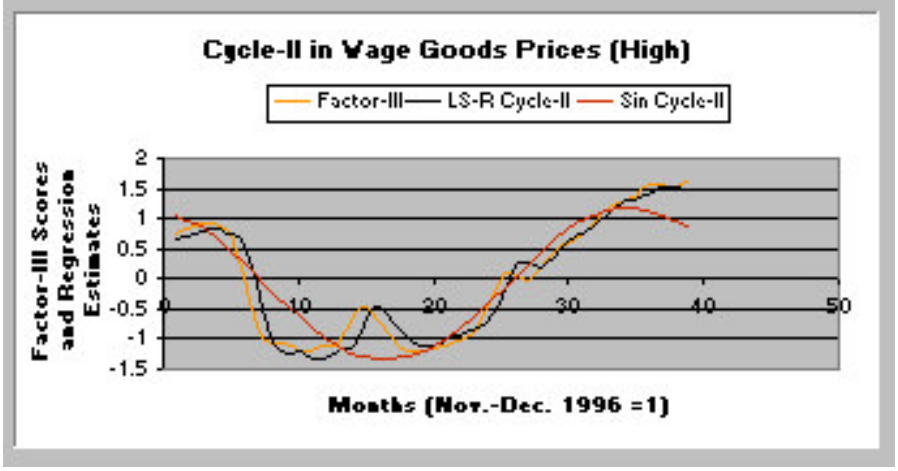
Factor-III (Low)		Coefficient	Std. Err	Beta	t value	Sig.
R^2 = 0.906	(Constant)	7.516E-03	.050		.149	.882
F = 173.62	Factor-III(L)$_{t-1}$	0.899	.053	.897	16.839	.000
	SIN3	-0.220	.077	-.153	-2.868	.007

Factor3(L)$_{t-1}$ = Factor3 Score (L) of one year prior to Factor3 Score (L)$_t$

Factor-III (High)		Coefficient	Std. Err	Beta	t value	Sig.
R^2 = 0.951	(Constant)	0.03009	.036		.824	.415
F = 348.56	Factor-III(H)$_{t-1}$	0.989	.038	.959	25.919	.000
	SIN3	-0.188	.053	-.131	-3.532	.001

Factor-III(H)$_{t-1}$ = Factor-III Score (H) of one year prior to Factor-III Score (H)$_t$





4. Trends in Cost of Living of Casual Wage Workers in Shillong: The cost of living index is a measure of the changes in the cost of living of people who fall within the same income range over a different period of time. To construct the Cost of Living Index (for a specified class or group of people), we select a group of commodities and weight them according to which the members of the group as a whole make use of them. A base year is chosen and assigned the index number 100. A rise in prices of 2% gives a new index number of 102, just as a fall in prices will give an index number of 98.

There are various factors which influence the cost of living (or the cost of labour re-generation). In our context a mention of a few ones is pertinent. Generally, those who live in urban areas or in the cities have a higher cost of living than those who live in the rural areas, because in cities nothing is obtained without paying. But in rural areas, people can get much free of cost like - water, firewood etc. Next, the distance of the working place from the residence has a direct bearing upon the budget expenditure of a family. If a person has to travel daily for two to three hours and spend 20 percent or so of his total income on traveling alone, his cost of living would be higher.

Shillong is a hill station having a cold climate. People who live in the plains/near the riverbanks have relatively lower cost of living. As the soil is fertile and the water is in plenty, cultivation as well as rearing of animals is easier and more remunerative. The cost of transportation also is low, because different modes of transportation (railway, waterway, roads, cycle, rickshaws, etc.) are viable and easily available. On the other hand, those living in the hills face problems such as lack of transport and communication, water scarcity for drinking as well as irrigation, steep and rugged terrain, less fertile and erosion-prone soil, and so on which make cultivation difficult. Many articles of consumption that make up the 'wage goods' are to be brought in (imported) from far off lands and therefore they sell quite costly. This cost enters into the costs of everything else and ultimately, the cost of living goes higher. Prices of the most wage goods in Shillong are higher than in the plains. A few articles (rice, atta, Dal, etc.) in Shillong may cost 15 to 20 percent higher than in the plains, but a few other articles like green vegetables may cost three to five times or even more. That makes a high cost of living in Shillong.

The next important factor to influence cost of living is the institutional factor. In certain communities/tribes, there are peculiar customs, which make the part and parcel of culture (e.g. death ceremony among the Khasis). These customs are costly to perform. Nevertheless, they are necessary and raise the cost of living. Some socially necessary practices (offering kwai among the Khasis) are expensive but so included in the life style that they are necessary.

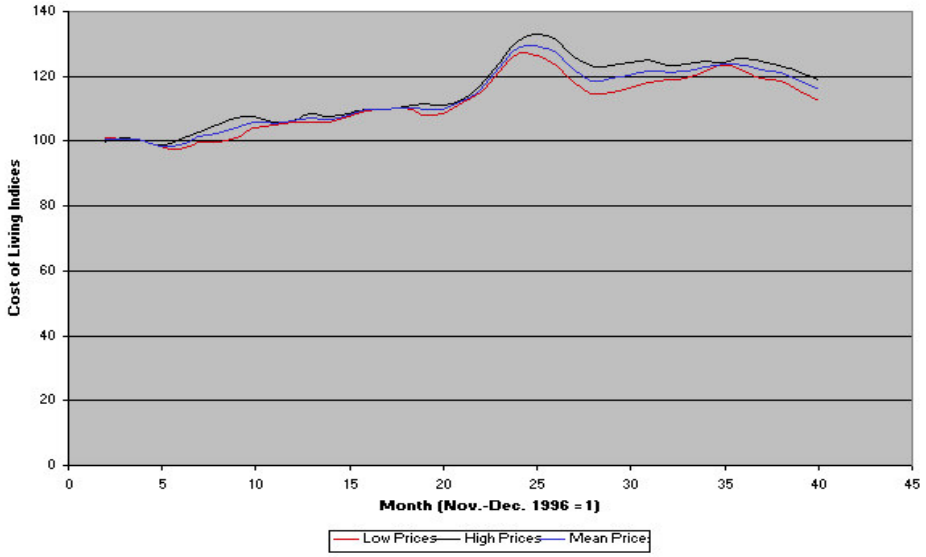
In interpreting a 'cost of living index' one must remember that the so-called 'cost of living index' is not a cost of living index as such because it *does not indicate how much must actually be spent by families to maintain a specified level of living*. It is just an index of prices paid by consumers. *The index measures only changes in prices, it tells nothing about changes in the kinds and amounts of goods and services families buy; the total amount families spent for living or the difference in living cost in different places*. The true index of the cost of living is the ratio of the monetary expenditures of an

individual which buys for him the same 'standard of living' or 'total utility' in two situations differing only in respect of prices. The term 'cost of living index' is also known as 'consumer price index', 'price of living index', or 'retail price index' in different countries with virtually no difference in their meaning.

Cost of Living Index for Casual Workers in Shillong: We make an attempt to construct the Cost of Living Indices for the Casual Wage workers in Shillong. For this purpose we have used the following commodities in the consumption basket of casual wage workers: Rice, Dal, Sugar, Tea, Potatoes, Onion, Mustard, Atta, Fish (composite – dry & fresh), Beef, Meat (composite – pork & mutton), Green vegetables (composite – several in number), Pan, Betel nut, Cigarettes and Fuel (composite – charcoal and kerosene oil). These commodities account for some 85 to 90 percent of the total (daily) consumption expenditure of a typical casual wageworker in Shillong.

For constructing a Cost of Living Index, there are a number of methods available, each with its own merits and demerits. Laspeyres formula, Paasche's formula, Fisher's ideal index formula, etc. are a few to name.

Movements in Cost of Living Indices for Casual Wageworkers in Shillong



T L Kelly proposed to construct Cost of Living Index by the formula

$$I_{ot} = \frac{\sum_{i=1}^{m} QP_t}{\sum_{i=1}^{m} QP_0},$$

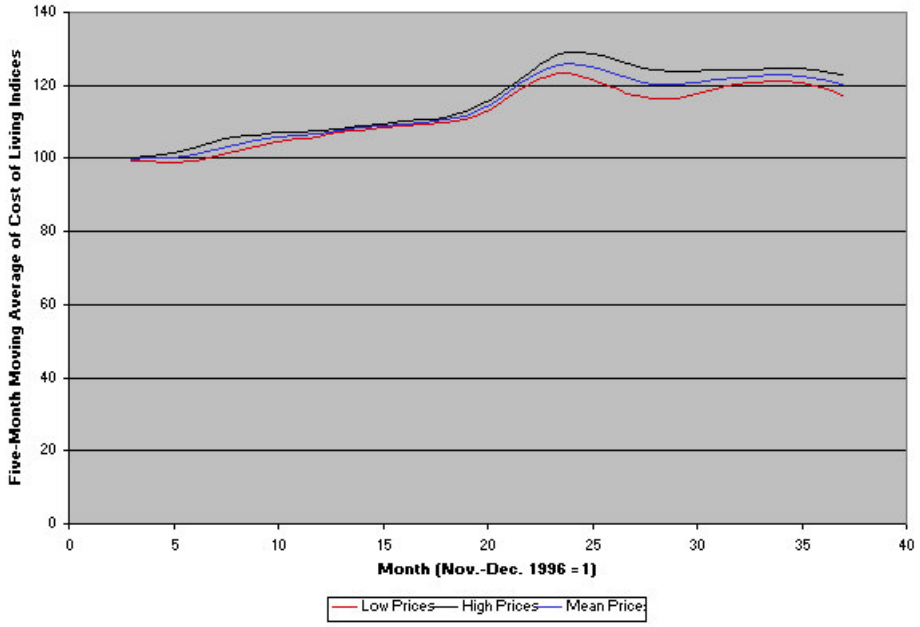
where I_{ot} = Cost of Living Index for the time point t with base time point 0, P_0 = prices at the base time point and P_t = prices at the t time point for individual commodities i (=1,2,…, m). This method, unlike Laspeyres method that uses Q_0 corresponding to P_0 or Paasche's method that uses Q_t corresponding to P_t, makes use of Q which may correspond to any year or average over several years, but remains fixed (**Elhance et al**., 1997, pp. 13.22 – 13.23). We have used Q as an average over Dec. 1996-Feb. 2000 with corresponding prices and observations so that we obtain stable weights and what matters

in determining the Cost of Living Index are not the structural changes in expenditure pattern but the changes in the prices alone. The base point prices (P_{L0} and P_{H0}) are averages of the price quotations for Nov. 1996 to March 1997. It is expected that these base point prices would serve as a good reference prices. Cost of Living indices for Low and High prices (I_L and I_H) are presented in table 4(i).

Table 4(i): Lower, Higher and Average Cost of Living Indices in Shillong

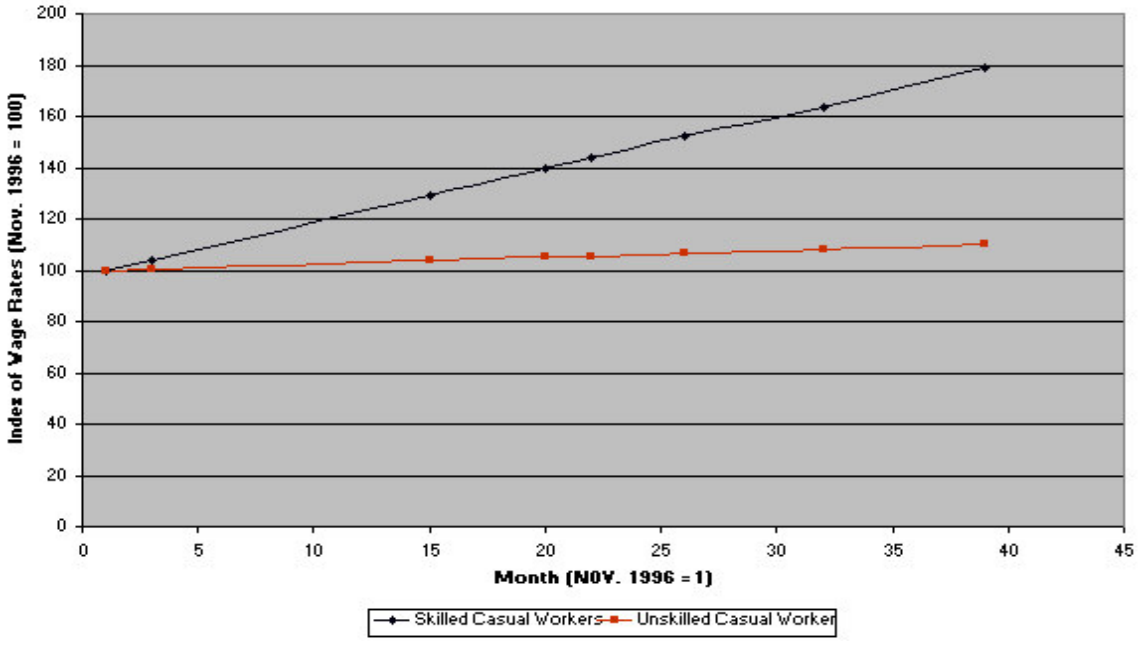
Nov. 1996 – March 1997 = 100	$\sum_{i=1}^{16} Q_{Li}P_{Lit}$	$\sum_{i=1}^{16} Q_{Hi}P_{Hit}$	$\sum_{i=1}^{16} Q_{Mi}P_{Mit}$	Cost of Living Indices		
				I_L	I_H	I_M
Nov.1996=1	Per Hhold	Per Hhold	Per Hhold	----------	----------	----------
2	1616.07	1599.55	1607.81	100.99	99.96	100.48
3	1611.04	1615.03	1613.04	100.68	100.93	100.81
4	1600.48	1603.53	1602.01	100.02	100.21	100.12
5	1573.33	1582.80	1578.07	98.32	98.91	98.62
6	1561.29	1609.04	1585.17	97.57	100.55	99.06
7	1593.77	1648.39	1621.08	99.60	103.01	101.31
8	1598.65	1678.53	1638.59	99.90	104.89	102.40
9	1620.09	1717.28	1668.69	101.24	107.31	104.28
10	1664.83	1722.30	1693.57	104.04	107.63	105.84
11	1677.69	1694.71	1686.20	104.84	105.90	105.37
12	1694.10	1704.17	1699.14	105.87	106.50	106.19
13	1696.30	1738.43	1717.37	106.00	108.64	107.32
14	1696.11	1724.34	1710.23	105.99	107.76	106.88
15	1722.39	1734.45	1728.42	107.63	108.39	108.01
16	1752.32	1759.00	1755.66	109.50	109.92	109.71
17	1760.46	1754.30	1757.38	110.01	109.63	109.82
18	1761.14	1773.19	1767.17	110.06	110.81	110.44
19	1732.63	1785.74	1759.19	108.27	111.59	109.93
20	1736.16	1777.71	1756.94	108.49	111.09	109.79
21	1789.10	1809.24	1799.17	111.80	113.06	112.43
22	1841.21	1873.78	1857.50	115.06	117.09	116.08
23	1944.39	1986.64	1965.52	121.51	124.15	122.83
24	2028.07	2093.17	2060.62	126.74	130.80	128.77
25	2020.72	2126.05	2073.39	126.28	132.86	129.57
26	1975.16	2097.88	2036.52	123.43	131.10	127.27
27	1890.38	2015.20	1952.79	118.13	125.93	122.03
28	1830.77	1963.78	1897.28	114.41	122.72	118.57
29	1839.98	1975.59	1907.79	114.98	123.46	119.22
30	1861.22	1991.31	1926.27	116.31	124.44	120.38
31	1888.81	2000.34	1944.58	118.03	125.00	121.52
32	1901.68	1973.84	1937.76	118.84	123.35	121.10
33	1909.19	1979.06	1944.13	119.31	123.67	121.49
34	1946.95	1994.09	1970.52	121.67	124.61	123.14
35	1971.29	1987.11	1979.20	123.19	124.18	123.69
36	1943.14	2010.34	1976.74	121.43	125.63	123.53
37	1909.21	1998.62	1953.92	119.31	124.90	122.11
38	1894.75	1977.44	1936.10	118.41	123.57	120.99
39	1848.30	1939.70	1894.00	115.50	121.21	118.36
40	1802.41	1907.19	1854.80	112.63	119.18	115.91

Trends in Cost of Living Indices for Casual Wageworkers in Shillong
(Five-months Moving Average)



Trends in Cost of Living Index of Casual Workers in Shillong: Five-Month Moving Averages of Cost of Living Indices provide a better picture of the trends in movement of cost of living during Nov.-Dec. 1996 to Feb. 2000, the study period). Clearly, during a little over 3-years' period, there is a 20 percent rise in cost of living of casual wageworkers in Shillong. This comes to (about) 6.25% compound annual rate of increase or about 6.67% average annual rate of increase in cost of living.

Index of Wage Rates of Casual Workers in Shillong



We may ask: are changes in wage rates of casual wageworkers commensurate with the changes in their cost of living? In the later half of our study period, wages of unskilled workers have systematically lagged behind the increase in the cost of living index. Wage rates of unskilled workers have increased by 11 to 12 percent while the cost of living has increased by 20 percent during the study period.

However, wage rates of skilled workers, which increases by (about) 80 percent or so, succeeded at overpowering the increase in the cost of living. Obviously, the unlimited supply of unskilled casual wageworkers from the rural Meghalaya, Nepal, Bihar, Bengal, Bangla Desh, Assam, etc to Shillong has kept up an excess supply of unskilled casual wageworkers much above what is demanded for in the market. However, that is not the case with the skilled casual wageworkers. Additionally, it is not unlikely that urbanization, development and rise in secondary as well as tertiary sector activities in Shillong has created more jobs for skilled casual wage workers more in proportion than that for the unskilled casual wage workers. That is why the increase in wage rates is favourable to the skilled casual wageworkers.

Finally, a word of caution must be put forward. The monthly average amount of expenditure on wage goods incurred by an average casual wageworker household (which was Rs. 1608 in Nov.-Dec. 1996) rose to Rs. 1855 in Feb. 2000. If one finds that elsewhere (e.g. Guwahati, Imphal, Calcutta) this amount is more (or less) than that in Shillong, it will not mean that casual workers elsewhere have a higher (lower) standard of living. A meaningful comparison is possible only if the quantities purchased and their proportions (used as weights) are comparable. Nevertheless, in most cases it is not so. Relative proportions of quantities and amount allocated on them would vary from place to place. Consumption of non-vegetarian food, kwai (Pan and betel nut), warm clothes and fuel claim larger proportions of monthly expenditure in Shillong than most other comparable cities/towns.

References

1. Elhance, D. N. et al. (1997). *Fundamentals of Statistics*. Kitab Mahal, Allahabad.

2. ILO (1996). *Wage workers in agriculture: Conditions of employment and work. (*Report for discussion at the Tripartite Meeting on Improving the Conditions of Employment and Work of Agricultural Wage Workers in the Context of Economic Restructuring*)*. International Labour Organisation, Geneva.

3. Myrdal, Gunnar (1972), *Asian Drama: An Inquiry into the Poverty of Nations*. (abridged by Seth S. King), Vintage Books, New York.