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Rural Non-farm Employment: an Analysis of Rural Urban Interdependencies

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Acronyms

GDP	Gross Domestic Product
HDI	Human Development Index
HH	Household
IMR	Infant Mortality Rate
NCAER	National Council of Applied Economic Research
NFE	Non-Farm Employment
NSS	National Sample Survey
NSSO	National Sample Survey Organisation
OAE	Own Account Enterprises
PDS	Public Distribution System
P+SS	Principal and Subsidiary Status
RU	Rural-Urban
WPR	Workforce Participation Rate

Abstract

An analysis of the employment situation in India during the 1990s shows that there has been reasonably high growth in non-farm employment (NFE) in rural areas since 1993. Unfortunately, this has not been associated with an increase in total employment, with the growth rate registering a dramatic decline compared to the preceding decade of 1983–93. One also observes a decline in the percentage of subsidiary employment as also self-employment in rural areas, the jobs that arguably helped households in finding a survival strategy. The growth of casual employment during 1993–2000, also slowed down, compared to the preceding decade. More importantly, the growth rate of NFE during 1993–2000, although higher than that of the population and labour force, is much below the figure of the previous decade, 1983–93. Further, the lack of demand for food grains, on the face of a decline in off-take from PDS and a dwindling intake of major nutrients in per capita terms, is disturbing. All these do not fit in well with the proposition that rural poverty has declined substantially during the later half of the 1990s, as suggested by the data on consumption expenditure.

The rate of growth of NFE in rural areas was below that of urban areas during the 1980s and the gap has widened during 1993–2000. Furthermore, the growth rate has declined significantly in the late 1990s compared to the previous period, as noted above. Similarly, the decline in the growth rate of NFE for females is conspicuous both for rural and urban areas, compared to the male counterpart. As a consequence, the share of female NFE in total (female) employment in rural areas in 1999–2000 works out as less than that of 1987–8. The slowing down of the process of sectoral diversification can thus be seen to have adversely affected the more vulnerable sections of the population, such as women and the rural population, much more than the others. Indeed, the growth in NFE has taken place largely within the urban informal sector. Here, too, males have the major share in incremental employment.

The relationship between the incidence of NFE in rural areas with levels and nature of employment, unemployment and poverty *at state level* suggests that a high share of NFE does not necessarily imply healthy economic development. The former is associated positively neither with per capita income nor with the percentage of non-poor population. Further, rural NFE reflects no significant relationship with levels of urbanisation. Its correlation with the growth of the urban population in the 1980s also works out as insignificant, which in the 1990s proves negative as well as significant. One can, therefore, argue that people engaged in traditional occupations, such as artisans, craftsmen, carpenters, goldsmiths, blacksmiths, etc are hit badly in the relatively urbanised regions.

Spatial variation in development and socio-economic indicators around urban centres presents a disturbing situation. There is a sharp decline in the levels of per capita income in rural areas within a distance of 0–15 km, despite having a high percentage of NFE. One may argue that the economic activities pushed out from the city to the rural hinterland have significantly lower earning/productivity than their counterparts in urban areas. Further, the agricultural wage rates both for male and female labourers decline very sharply in the immediate hinterland, along with the size of the landholdings. Indicators of social development, such as enrolment at schools, per capita expenditure on education, etc also show a sharp decline, while infant mortality (IMR) shows a rise. All these seriously question the hypothesis regarding the rural-urban continuum and healthy interdependencies between urban centres and their hinterlands. It appears that the peripheries of cities and towns are degenerating as low productive activities are pushed out and low skilled rural migrants are absorbed.

The decline in the growth of NFE during the 1990s need not itself be an alarm signal, as people have generally been seeking shelter in activities outside farming, as a residual sector. It would be

erroneous to encourage the growth of NFE in rural areas or be complacent about it, unless the productivity of the workforce engaged in this sector can be increased. Industries and some of the service activities that have high employment potential and are linked with modern sectors should be encouraged to bring about sectoral diversification, as these can enhance levels of productivity. Unfortunately, the capacity of the government to generate such employment directly through anti-poverty and other programmes is limited. It is, therefore, recommended that these programmes should primarily be focused on the creation of an economic infrastructure, the provision of basic amenities and the strengthening of rural-urban (RU) linkages. The responsibility of job creation can be left to the market, the state setting up a framework for legislating and monitoring wages and working conditions in the private sector.

1 Introduction

Since the early 1990s it has been argued that liberalisation measures relating to regional and international trade, the location of industries, etc has had a positive impact on the growth of commercial and other service activities in rural India, ushering in a process of sectoral diversification. A section of scholars and policy makers, however, are sceptical about this notion and believe that the growth of non-farm employment can largely be attributed to a lack of productive opportunities within the primary sector. Unfortunately, information on income, investment, the flow of goods and services, etc at regional level is scanty, making empirical investigations on this aspect extremely difficult. Further, an analysis of rural-urban interdependencies in the context of growing non-formal employment poses an important and difficult challenge for researchers and policy makers in the country. Not many studies have been undertaken focusing on the rural-urban relationship, although a few have examined the impact of urban centres on the agrarian economy at macro level by analysing the changes in, and the relationship between, employment and income structure, wages, etc. Such analyses have been carried out only at state level, using workforce data as a proxy for economic variables.

Researchers have noted a certain structural rigidity with regard to workforce distribution over the past four decades since Independence, based on data from the Population Census and National Sample Survey (NSS). Despite significant decline in the share of income of the primary sector and a substantial increase in that of tertiary activities, their employment shares have remained relatively stable. In fact, a reversal of the process of diversification in rural areas has also been noted during certain periods, using the Census data. The decade of the 1970s, for example, shows a decline in the share of non-farm employment based on Population Census data.

Importantly, NSS data suggest a process of sectoral diversification in rural areas; there has been an increase in the non-farm sector's share in employment (principal and subsidiary status), between 1973–93. This has been maintained during 1993–2000. Scholars have, therefore, argued that the process of sectoral diversification did not suffer a setback during the late 1990s. However, a more rewarding way of analysing the process of sectoral diversification would be to compute the growth rates of NFE for different periods and make a comparison. One can note that the annual growth rate of NFE in rural areas during 1993–2000 has gone down significantly compared to the preceding decade of 1983–93 (excluding the drought year of 1987–8). The 1990s, thus, reflect a significant departure from the past trend.

Importantly, the decline in the growth rate of NFE has been associated with a decline in the growth of total employment. The growth rates of total workers by usual and current weekly status registered a dramatic decline in the late 1990s, compared to the decade of 1983–93. The decline in the case of employment by daily status is most conspicuous, with the annual growth rate declining from 2.70% to 1.07%. The same is observed during 1991–2001, using data from population census. The percentage growth rate of main workers has gone down from 2.55% in the 1980s to 0.91% in the 1990s. One can also observe a decline in the percentage of subsidiary employment as also self-employment in rural areas, jobs that arguably helped the households in finding a survival strategy. The growth of casual employment has also slowed down during 1993–2000, compared to the preceding decade.

The slowing down of employment growth during the 1990s can be observed also within the manufacturing sector. This is largely because of sluggish growth within the organised manufacturing sector, which was as low as 0.87%. There was three times as much growth in the unorganised sector, the figure being 2.95%. Unfortunately, the share of the unorganised sector in the total contribution of manufacturing has remained about the same, despite a significantly higher

growth. This implies that productivity in this sector has declined in relation to that of the organised sector. This further reinforces the argument that the growth of non-farm activities in recent decades may not be a healthy manifestation in the Indian economy.

Another important change in the development scenario has been brought about through the rapid decline in the rate of urbanisation. The urban population's growth rate has gone down from the record level of 3.8% per annum in the 1970s to 3.1% in the 1980s and further to 2.7% in the 1990s. This marks a significant departure from the past and also goes against the projections made by various Study Groups and Expert Committees. It is possible to link the low growth of NFE and the low rate of sectoral diversification in rural areas with a smaller number of villages becoming urban centres and thereby dampening the rate of urbanisation.

Based on the above, one would argue that the workforce dependant on agriculture has gone down only marginally in the 1990s, although its share in the GDP has declined significantly, implying a decline in the economic well-being of the rural population. Importantly, the sharp decline in the growth rate of NFE in rural areas can not be explained away in terms of a deceleration in population growth and a worsening of the employment scenario.[1] This has to be interpreted in terms of a slower rate of the diversification of rural economy, which is likely to have an adverse impact on the poverty scenario.

There are, however, certain other macro-economic trends that come into conflict with the above perspective. A large majority of researchers and policy planners in the country have demonstrated, using the NSS data on consumption expenditure, that rural poverty has declined significantly during the 1990s, notwithstanding the serious controversies surrounding the 55th Round for the year 1999–2000. Further, scholars such as Sundaram (2001) have argued that the real wages for rural casual workers grew at a high rate during 1993–2000. The rate accelerated for males, while remaining the same for females. This proposition can, however, be questioned, since the high income growth in rural sectors can be attributed to the revised series computed by shifting the base year from 1981–2 to 1993–4. There have been several changes in the system of data collection that are likely to inflate the growth rate (Sen, 2000). This casts doubts on the proposition regarding the high growth of rural casual workers' wages.

All these, along with the fact of declining workforce participation rates (WPR) and increasing unemployment rates, suggest that a much more detailed and disaggregated analysis is required for a reconciliation of the diverse trends in different macro-economic indicators. Any quick generalisation regarding the trends in NFE and its impact on the rural population's economic well-being, based on the macro level data would be misleading. One must look at the differential growth of income in different sectors and also at the inter-state variation in the growth of rural non-farm employment and analyse these in the context of the changing structure of regional development in the country. Further, it will be important to analyse the components of NFE, the nature and levels of employment and unemployment, their growth pattern, social well-being and linkages among these before one can link the growth of NFE with the economic and social well-being of the population.

Keeping the above in view, the present paper analyses the changing pattern of employment and unemployment in rural areas during the past three decades, focusing on the growth of non-farm employment, to see whether this can be explained in terms of RU interdependencies and the development dynamics or their absence at the regional level. The second section, which follows the present introductory section, overviews the macro level employment situation with a special focus on NFE, using the data from National Sample Survey. The pattern of interdependencies among the select indicators pertaining to non-farm employment and socio-economic development at the state level is examined in the subsequent section. In the fourth section, the spatial variation in a number

1 Indeed, there has been a dramatic rise in the share of NFE in urban areas, reflecting a process of transformation in small towns.

of development indicators has been analysed around the urban centres, using village level data. An attempt has been made to examine whether the traditional distance decay model for the developmental variables, supposed to function through dissemination of growth impulses, is valid for rural India. It tries to see whether the proximity to urban centres leads to higher levels of wages, income, etc, as well as greater access to basic amenities, resulting in the higher economic and social well-being of the rural population. The final section summarises the conclusions and highlights their policy implications.

2 The Changing Employment Situation and the Growth of Non-farm Jobs in Rural India

Workforce participation rates (WPR) by usual status, defined as the percentage of male and female workers to the corresponding population, show fluctuations of around 43% in rural India during 1973–4 and 1993–4, based on the quinquennial data from the National Sample Survey Organisation (NSSO). The rate went up by about 1% from 1987–8 to 1993–4. This was also the case in urban areas. The developments in the late 1990s, however, appear very disturbing.[2] The WPR have declined in rural and urban areas – both for males and females – by usual, weekly and daily employment status. The decline may be noted as significant also in the (15–59) age group as well, computed after excluding children and elderly people (Table 1).

Table 1 Percentage of workers in 15–59 age group in different NSS rounds by usual, weekly and daily status

Year/round	Rural male		Rural female		Urban male		Urban female	
	Principal	*Principal + subsidiary*	*Principal*	*Principal + subsidiary*	*Principal*	*Principal + subsidiary*	*Principal*	*Principal + subsidiary*
1977–8 (32nd)	90.2	92.0	40.7	54.2	79.6	81.0	19.3	24.6
1983 (38th)	88.4	90.4	40.1	54.5	79.5	81.0	18.7	23.4
1987–8 (43rd)	86.2	88.7	39.8	51.6	77.9	79.3	18.3	23.5
1993–4 (50th)	86.5	88.4	36.7	51.6	78.8	79.7	18.4	23.4
1999–00 (55th)	85.5	86.7	33.4	48.2	77.9	78.5	17.6	20.9
	Weekly status	*Daily status*	*Weekly status*	*Daily status*	*Weekly status*	*Daily status*	*Weekly status*	*Daily status*
1977–8	87.1	81.5	37.7	31.4	78.6	75.7	19.6	17.1
1983	85.4	80.2	36.4	31.6	78.3	75.2	18.4	16.5
1987–8	84.0	83.5	35.3	33.2	77.3	75.1	18.5	17.0
1993–4	85.1	80.9	42.0	34.3	78.2	76.0	20.9	18.1
1999–00	83.4	78.1	40.8	32.9	77.1	74.4	19.1	16.7

Source: Government of India: Ministry of Statistics and Programme Implementation (various years).

Importantly, such an overall decline in WPR for all categories has not been observed in any previous year based on the NSS data, not even in 1987–8, the year when employment was seriously affected by drought. The decline in WPR indicates that the growth rate of employment (by usual status) was less than that of population during the late 1990s, compared to the previous decade and a half. Understandably, the former would be much lower than that of the 1980s or early 1990s, when the population growth rate was higher

Interestingly, by weekly status, WPR increased for women and men, for the total and also 15–59 age groups, both in rural and urban areas during 1983–93 (Table 1). Similar is the trend in WPR by daily status, viz. the percentage of person days of employment to total man-days available for work. The increase is most impressive in the case of urban women.[3] Since the mid-1990s, however, the

2 By the annual data from the NSS, the WPR for both male and female populations of rural and urban areas show a distinct decline. The fall is high in the case of men and for women, it is still higher. The decline in female WPR during 1993–8 by over 5% in both rural and urban areas may indeed be ominous, as this presents a sharp contrast to the increasing trend observed in the 1970s, 1980s and early 1990s.

3 This could possibly be explained in terms of a growth in the demand for short duration jobs in urban informal activities, where women are preferred.

employment scenario has changed drastically.[4] The quinquennial data for 1999–2000 reveals a declining trend, as WPR work out less than those in 1993–4. The WPR by weekly and usual status for the adult age groups have also gone down, which gives disturbing signals with regard to recent developments in the labour market. Further, the share of subsidiary employment in the population also fell sharply during 1993–9 in all the categories, the decline in percentage figures being higher in the case of women. This trend can be observed even when the 15+ age group is considered (Table 2).

Table 2 Incidence of subsidiary employment

Percentage of subsidiary workers to total population				
	Rural		**Urban**	
	Male	*Female*	*Male*	*Female*
1993–4 (50th)	1.5	9.4	0.8	3.4
1999–2000 (55th)	0.9	6.8	0.5	2.2
Percentage of subsidiary workers to total population in 15+ age group				
	Rural		**Urban**	
	Male	*Female*	*Male*	*Female*
1993–4	1.3	13.9	0.7	4.7
1999–2000	0.9	10.2	0.5	3.0

Source: Government of India: Ministry of Statistics and Programme Implementation (various years).

On the whole, the decline in WPR for the population of the 15+ age group is more pronounced in rural than in urban areas. It is by 2% or more in the former by all three definitions of employment. The decline is slightly more for women than men by usual and weekly status. By daily status, the decline seems to be similar. But one interesting point is that the number of persons employed by daily status among 1000 usually employed (principal + subsidiary) women has gone up from 638 to 676 in rural areas and from 716 to 791 in urban areas during 1987–99. For males, the rural figure has gone down from 638 to 676, while the urban figure has stagnated at around 940.

The percentage of unemployed persons (person days) to the total labour force (labour days), declined until 1993–4 (Kundu, 1997). This happened to all three concepts of employment canvassed by NSS (Tables 3a and 3b). The decline, nonetheless, is relatively high by weekly and daily status, compared to the usual status. This gave an indication of an increase in part-time and short duration work. A large number of households were sending more of their members to seek or create employment for themselves as a part of their survival strategy and were thus alleviating their poverty. The data from the 55th round, however, tells a different story. The unemployment rates in the year 1999–2000 by all three (usual, weekly and daily) status are higher than in 1993–4 (Tables 3a and 3b). The only exception to this is the category of urban women. One can, therefore, argue with a reasonable degree of confidence that the employment situation worsened significantly in the late 1990s – and slightly more so in rural than in urban areas.

4 The WPR for males (all ages) as well as females show fluctuations with a slight declining trend during the period of 1994–8, both by usual and weekly status. The fall in the case of women is significantly higher. This could be indicative of a process of slowing down of the growth of non-agricultural and informal sector jobs in the late 1990s.

Table 3a Percentage of unemployed persons/person days to labour force/labour days in rural areas

Year/round	Male			Female		
	Usual principal + subsidiary status	*Weekly status*	*Daily Status*	*Usual Principal + subsidiary status*	*Weekly status*	*Daily status*
1977–8 (32nd)	1.3	3.6	7.1	2.0	4.1	9.2
Jan–Dec 83 (38th)	1.4	3.7	7.5	0.7	4.3	9.0
1987–8 (43rd)	1.8	4.2	4.6	2.4	4.4	9.0
1989–90 (45th)	1.3	2.6	-	0.6	2.1	-
1990–1 (46th)	1.1	2.2	-	0.3	2.1	-
July–Dec 91 (47th)	1.6	2.2	-	0.7	1.2	-
Jan–Dec 92 (48th)	1.2	2.2	-	0.6	1.2	-
1993–4 (50th)	**1.4**	**3.1**	**5.6**	**0.9**	**2.9**	**5.6**
1994–5 (51st)	1.0	1.8	N/A	0.4	1.2	N/A
1995–6 (52nd)	1.3	1.8	N/A	0.7	0.9	N/A
1997 (53rd)	1.2	2.0	N/A	0.7	1.8	N/A
1998 (54th)	2.1	2.9	N/A	1.5	2.7	N/A
1999–2000 (55th)	**1.7**	**3.9**	**7.2**	**1.0**	**3.7**	**7.0**

Table 3b Percentage of unemployed persons/person days to labour force/labour days in urban areas

	Male			Female		
Year/Round	*Usual principal + subsidiary status*	*Weekly status*	*Daily Status*	*Usual principal + subsidiary status*	*Weekly status*	*Daily status*
1977–8 (32nd)	5.4	7.1	9.4	12.4	10.9	14.5
Jan–Dec 83 (38th)	5.1	6.7	9.2	4.9	7.5	11.0
1987–8 (43rd)	5.2	6.6	8.8	6.2	9.2	12.0
1989–90 (45th)	3.9	4.5	-	2.7	4.0	-
1990–1 (46th)	4.5	5.1	-	4.7	5.3	-
July–Dec 91 (47th)	4.1	4.8	-	4.3	5.6	-
Jan–Dec 92 (48th)	4.3	4.6	-	5.8	6.2	-
1993–4 (50th)	**4.1**	**5.2**	**6.7**	**6.2**	**8.4**	**10.4**
1994–5 (51st)	3.4	3.9	N/A	3.4	4.0	N/A
1995–6 (52nd)	3.8	4.1	N/A	3.1	3.5	N/A
1997 (53rd)	3.9	4.3	N/A	4.4	5.8	N/A
1998 (54th)	5.1	5.4	N/A	6.8	7.8	N/A
1999–2000 (55th)	**4.5**	**5.6**	**7.3**	**5.7**	**7.3**	**9.4**

Source: Government of India: Ministry of Statistics and Programme Implementation (various years).

Another important dimension of change in the labour market in recent years is the process of casualisation. The percentage of casual male workers was noted to have gone up from the quinquennial data, both in rural and urban areas during 1977–93 (Kundu, 1997). A similar increase but of a smaller magnitude, has been observed in case of females (Table 4). Interestingly, the figures have also gone up in rural areas after 1993–4, both for males and females. The growth of

casual employment, however, works out as much less during 1993–9 than the preceding five-year period. In urban areas, the share has actually gone down. The decline is very sharp, by about 5% in case of females. One can, therefore, argue that the growth rate in casual workers declined significantly during 1993–9, compared to the preceding six-year period.

Table 4 Percentage of usually employed persons (P+SS) by type of employment

Year/round	Rural male			Rural female		
	Self employed	*Regular employees*	*Casual labour*	*Self employed*	*Regular employees*	*Casual labour*
1977–8 (32nd)	62.8	10.6	26.6	62.1	2.8	35.1
Jan–Dec 83 (38th)	60.5	10.3	29.2	61.9	2.8	35.3
1987–8 (43rd)	58.6	10.0	31.4	60.8	3.7	35.5
1993–4 (50th)	57.9	8.3	33.8	58.5	2.8	38.7
1994–5 (51st)	60.4	6.8	32.8	57.0	2.2	40.8
1995–6 (52nd)	59.0	7.7	33.3	56.4	2.4	41.2
1997 (53rd)	59.4	7.3	33.3	57.0	2.1	40.9
1998 (54th)	55.3	7.0	37.7	53.4	2.5	44.2
1999–2000 (55th)	55.0	8.8	36.2	57.3	3.1	39.6
	Urban male			**Urban female**		
1977–8 (32nd)	40.4	46.4	13.2	49.5	24.9	25.6
Jan–Dec 83 (38th)	40.9	43.7	15.4	45.8	25.8	28.4
1987–8 (43rd)	41.7	43.7	14.6	47.1	27.5	25.4
1993–4 (50th)	41.7	42.1	16.2	45.4	28.6	26.0
1994–5 (51st)	40.4	43.1	16.5	42.6	30.1	27.3
1995–6 (52nd)	41.0	42.5	16.5	40.0	33.2	26.8
1997 (53rd)	40.0	41.5	18.5	39.7	31.3	29.0
1998 (54th)	42.5	39.5	18.1	38.4	32.7	28.8
1999–2000 (55th)	41.5	41.7	16.8	45.3	33.3	21.4

Source: Government of India: Ministry of Statistics and Programme Implementation (various years).

The increase in the regular/salaried workers as a percentage of total (usual status) workers seems to be a special phenomenon for urban females. This would have to be interpreted rather cautiously. One can observe that of the many sub-categories of regular workers where female employment has increased, the jobs are of an informal nature and have very low wage rates.

The low growth of employment during the whole decade of the 1990s can be observed from Economic Census data. The growth rate of Own Account Enterprises (OAE) during 1980–90 was 3.7% per annum in urban India, which came down to 2.5% per annum during 1990–8. The decline in the growth rate of establishments was phenomenal – going down from 4.8% to 1.8%. Correspondingly, the growth rate of employment declined from 2.8% to 1.1% (Kundu et al., 2001).

Based on the above overview, one can argue that there has been a deceleration in the growth rate of employment by usual status during the 1980s and early 1990s. This process seems to have accelerated since the mid-1990s, reflected in a significant decrease in WPR in 1999–2000. Importantly, employment grew rapidly by weekly and daily status during 1983–93, which has been explained in terms of the growth of short duration and part-time jobs. This had a healthy impact on the conditions of workers, leading to a decline in poverty. However, after 1993–4, the WPR by these definitions declined both for males and females. This, too, contrasts sharply with the trend noted in the 1980s and early 1990s (Kundu, 1997). This implies that the increase in low productive

jobs, resulting in a decline in poverty, has been stalled in recent years. This would have a serious consequence for poverty levels, as discussed in the following section.

The similarity in the nature of changes in the employment situation in rural and urban areas is indeed very striking. During the 1980s and early 1990s, one noted an improvement in the employment situation, largely due to growth of part-time, subsidiary and casual jobs. But this happened both in rural as well as urban areas. Similarly, the decline in these jobs in the late 1990s was conspicuous in both. This is a definite pointer to the openness of the rural and urban segments of Indian economic system and the possible impact of one on the other.

It would be important to compute the growth rates in NFE in the rural areas for the 1980s and 1990s and compare the trends with the earlier period, using the data from various NSS rounds. Such comparisons, however, are likely to be misleading, as the NSS round for the year 1987–8 has recorded a large number of workers outside agriculture, thanks to the construction activities launched by the government under various anti-poverty programmes to meet the challenge of severe drought. The high percentage of NFE workers in 1987–8 understandably, decreased the growth rate in the subsequent six-year period. Consequently, it would make sense to exclude the drought year from the calculations. An attempt has been made here to compute the growth rates for the periods from 1983 to 1993–4 and compare it with the growth of the subsequent period.

Computation of the growth rates of total workers or that of any particular sector based on NSS data has certain estimation problems. NSS reports total employment figures at the national and state levels in the years of the Survey, based on the projected population. These are often at variance with those computed after the subsequent publication of the population census data. It would, therefore be advisable not to use the NSS estimates of the number of workers but to obtain the figures using the work participation rates and percentage distribution of workers across the sectors, along with the Census figures of population.

The first stage for the calculation is estimating the population figures for the mid-points of the NSS periods. This has been done by taking the total population, including the estimated figures for the states of Assam and Jammu & Kashmir in the years 1981 and 1991 and also certain districts of Gujarat in 2001. The annual exponential growth rates have then been computed separately, for males and females, both in rural as well as urban areas. These rates constitute the basis for deriving projected figures for males and females in different NSS years (Table 5a). Now by applying the work participation rates among males and females separately, the workforce figures have been obtained (Table 5b). The non-farm employment estimates have then been obtained by multiplying the figures for males and females by the ratios for different sectors provided by NSS (Table 5c). These estimates provide the basis for computation of the growth rates (annual exponential) for NFE for different categories of workers during the periods of 1983–93 and 1993–2000, as given in Table 6.

Table 5a Estimated population on the mid-points of NSS survey

	Persons	*Male*	*Female*
1st July 1983			
Total	718,101,209	371,692,020	346,409,190
Rural	546,641,882	280,607,716	266,034,166
Urban	171,459,328	91,084,304	80,375,024
1st January 1994			
Total	893,805,846	463,452,505	430,353,341
Rural	658,826,434	339,487,596	319,338,839
Urban	234,979,412	123,964,909	111,014,503
1st January 2000			
Total	1,003,970,792	519,553,575	484,417,217
Rural	727,497,889	373,985,751	353,512,138
Urban	276,472,903	145,567,824	130,905,079

Note: The population figures are based on the data provided by the census for the years 1981, 1991 and 2001. These include the estimated population for Jammu & Kashmir and Assam, where censuses could not be conducted in all the years. The figures are 'final' for 1981 and 1991 and are provisional for 2001. The projections for the time points are made based on annual exponential growth rates, computed on the basis of these figures. The figures for the total rural/urban are obtained by aggregating the figures for males/females rather than using growth rates directly. Rural and urban figures are similarly aggregated to obtain figures for the country.

Table 5b Computation of usual status total workers (P+SS) by categories for the mid-points of the NSS rounds

WPR (P+SS) as % of population			**Total workers (P+SS)**			
1983			1983			
	Male	*Female*		*Persons*	*Male*	*Female*
-	-	-	*Total*	302,715,829	200,127,584	102,588,245
Rural	54.7	34.0	*Rural*	243,944,037	153,492,420	90,451,616
Urban	51.2	15.1	*Urban*	58,771,792	46,635,164	12,136,629
1993–4			1993–4			
-	-	-	*Total*	374,272,745	252,322,358	121,950,387
Rural	55.3	32.8	*Rural*	292,479,779	187,736,640	104,743,139
Urban	52.1	15.5	*Urban*	81,792,966	64,585,718	17,207,248
1999–2000			1999–2000			
-	-	-	*Total*	397,886,502	273,990,566	123,895,935
Rural	53.1	29.9	*Rural*	304,286,563	198,586,434	105,700,129
Urban	51.8	13.9	*Urban*	93,599,939	75,404,133	18,195,806

Note: The number of total workers has been estimated by simple multiplication of population figures in Table 5a with the WPR for different years. The figures for the total rural/urban workers are obtained by aggregating the figures for males/females rather than using WPR directly. Rural and urban figures are similarly aggregated to get the figures for the country.

Table 5c Computation of non-farm employment (NFE) by various categories for the mid-points of NSS rounds

NFE as % of total workers (P+SS)			Total NFE (P+SS)			
1983			1983			
	Male	*Female*		*Persons*	*Male*	*Female*
-	-	-	*Total*	95,195,064	75,907,059	19,288,005
Rural	22.2	12.2	*Rural*	45,110,415	34,075,317	11,035,097
Urban	89.7	68	*Urban*	50,084,649	41,831,742	8,252,907
1993–4			1993–4			
-	-	-	*Total*	134,996,140	107,584,529	27,411,611
Rural	26	13.8	*Rural*	63,266,080	48,811,526	14,454,553
Urban	91	75.3	*Urban*	71,730,061	58,773,003	12,957,058
1999–2000			1999–2000			
-	-	-	*Total*	157,630,547	127,223,180	30,407,367
Rural	28.6	14.6	*Rural*	72,227,939	56,795,720	15,432,219
Urban	93.4	82.3	*Urban*	85,402,608	70,427,460	14,975,148

Note: The totals of NFE among males and females have been estimated by simple multiplication of total workers in Table 5b with the percentage of NFE for different years. The totals of NFE in rural and urban areas have been obtained by aggregating the figures for males and females rather than by multiplying the percentage figure of NFE directly. Rural and urban figures are similarly aggregated to obtain the figures for the country.

Source: Government of India: Ministry of Statistics and Programme Implementation (various years).

Table 6 Annual exponential growth rates of non-farm employment for different categories of population

Categories	1983–1993/4	1993/4–1999/2000	Difference
Rural Males	3.42	2.52	-0.90
Rural Females	2.57	1.09	-1.48
Rural Persons	3.22	2.21	-1.01
Urban Males	3.24	3.02	-0.22
Urban Females	4.30	2.41	-1.89
Urban Persons	3.42	2.91	-0.51
Total Males	3.32	2.79	-0.53
Total Females	3.35	1.73	-1.62
Total Persons	3.33	2.58	-0.75

Note: Computed from Table 5c.

It may be noted that the growth rates of NFE are higher than those of population and labour force during both the time periods for almost all the categories (Table 6). The rates, however, have gone down dramatically in the late 1990s, compared to the previous decade. The growth rate of NFEs in rural areas was below that in urban areas during the 1980s and the gap widened during 1993–2000. Importantly, the decline in the growth rate of NFE for females is conspicuous both for rural and urban areas, compared to the male counterpart. As a consequence, the share of female NFE in total (female) employment in rural areas in 1999–2000 works out as less than that of 1987–8. One can, therefore, infer that the slowing down of the process of sectoral diversification has adversely affected the more vulnerable sections of population, such as the rural and female populations, much more than the others. Indeed, the growth in NFE has taken place largely within the urban informal sector, mostly for men at a low level of productivity.

The major factor responsible for the high poverty level in the country would, therefore, be a lack of access to employment or economic sustenance. As a result, the growth of demand for food-grains has grown very slowly, much below what was predicted by policymakers. Per capita cereal consumption has gone down systematically over the past few decades, both in rural and urban areas. The decline in rural consumption is indeed very substantial, the figure going down from 185 kg per year in 1980 to 165 kg in the mid-1990s (Kundu, 2001). In urban areas, the figure has stabilised at around 130 kg. Neither has demand for cereal as livestock feed grown much, almost stabilising at 5 million tonnes per year. Correspondingly, the intakes of most of the major nutrients show a decline. Calorie consumption per capita in rural areas, for example, has gone down drastically from 2,266 in 1972–3 to 2,221 in 1983 and then to 2,153 in 1993–4. Even in urban areas, calorie intake has gone down but at a slower rate, the figure declining by less than 1% during the two decades.[5]

The problems of serious malnutrition and hunger in the countryside can be attributed in no small measure to the worsening of the employment situation and lack of purchasing power. Importantly, agricultural production was stable during the first three years of the 1990s but thereafter has shown significant fluctuations – so much so that the index of production after a decade is just about 5% above that at the beginning of the decade. All these have led to a paradoxical situation when the country is forced to build a huge buffer stock and maintain it at enormous cost, despite serious nutritional deficiency.

5 Unfortunately, there is no evidence of a compensatory increase in protein consumption in per capita terms, as its level has stabilised at 60 g in rural and about 56 g in urban areas. The same thing can also be said about the consumption of other nutrients.

3 Economic Growth, Non-farm Employment, Poverty and Urbanisation: an Inter State Analysis of Interdependencies

In an attempt to analyse the spatial pattern of economic growth, non-farm employment, poverty and their interdependencies, a set of 43 indicators have been identified. The first four indicators give the non-farm employment in rural and urban areas in the years 1993–4 and 1999–2000. Another 31 indicators have been included, giving the percentage of male workers in 15+ age group, unemployment rates for males and females by usual and daily status, literacy rates, etc for different years. There are two indicators giving per capita income at current prices, and four indicators giving poverty levels in rural and urban areas for the years 1993–4 and 1999–2000. Lastly, mortality rates for infants and children for the year 1998–9 have been included. For correlation analysis, the data sets for rural and urban areas have been combined to look at cross category interrelations. The list of the indicators is given below:

- 1–4 Percentage of workers outside agriculture (NFE) in rural and urban areas in 1993–4 and 1999–2000
- 5–8 Male WPR in 15+ age group in rural and urban areas in 1993–4 and 1999–2000
- 9–20 Unemployment rates by usual status for males, females and persons in rural and urban areas for the years 1993–4 and 1999–2000
- 21–32 Unemployment rates by daily status for males, females and persons in rural and urban areas for the years 1993–4 and 1999–2000
- 33–6 Literacy rates for rural and urban areas in 1991 and 2001
- 37–40 Poverty in rural and urban areas for the years 1993–4 and 1999–2000
- 41–2 Per capita state domestic product at current prices for the years 1993–4 and 1999–2000
- 43–4 Infant and child mortality rates for the year 1998–9
- 45–6 Percent of urban population in 1991 and 2001
- 47–8 Growth of urban population during 1981–91 and 1991–2001
- 49–50 Percentage share of large towns (class I) in total urban population in 1991 and 2001
- 51–2 Percentage share of small towns (class IV–VI) in total urban population in 1991 and 2001
- 53 Growth of small towns during 1981–91
- 54–5 Growth of large towns (Class I) during 1981–91 and 1991–2001
- 55–60 Growth of class II, class III, class IV, class V and class VI towns during 1991–01

The spatial pattern of the socio-economic indicators and their interrelations with the incidence of NFE, as presented in Table A1 (see Annex) provide interesting insights into the development dynamics in rural and urban areas. Incidence of NFE in rural areas is generally seen as a manifestation of sectoral diversification and the setting in motion of a process resulting in overall development in a region through inter-sectoral linkages. It is, therefore, surprising that the percentage of workers in rural NFE in 1993–4 shows no positive correlation with the overall employment level captured through WPR for the 15+ age group. On the contrary, the relationship is negative and significant, indicating that the states that report a high share of NFE in total employment tend to have low levels of work participation. One can infer that it is the absence of employment opportunities that forces people to go into trading, transport and industrial activities that possibly have low productivity. This hypothesis is supported by the positive correlation of NFE

with the unemployment rate both by usual and daily status. It is, therefore, difficult to argue that the growth of non-farm employment in rural areas has promoted economic development and generated employment opportunities for the masses.

The correlation of NFE with poverty is negative in the case of rural areas. This is not very surprising, since one associates higher levels of NFE with higher economic opportunities, leading to a reduction in poverty. One may nonetheless wonder why the relationship is extremely weak and statistically insignificant. The correlation of the former with per capita income, is also insignificant. There is thus no evidence to suggest that the states reporting higher levels of income or low levels of poverty have experienced a high incidence of employment outside agriculture or vice versa.

One can, nonetheless, note a significant positive phenomenon pertaining to the NFE in rural areas. The percentage of non-farm employment exhibits a strong and positive relationship with indicators of social development. The states with a high incidence of NFE report high levels of literacy and also low infant and child mortality. It may, therefore, be argued that the success of non-farm activities ensures or is dependent on a certain minimum level of infrastructural facilities and the social environment. The growth of non-farm employment may not have a positive impact on employment or income opportunities for the poor but appears to be increasing their access to educational and health facilities. The growth of NFE can not, thus, be dismissed as an insignificant phenomenon in the agrarian society of India.

The pattern of relationships noted above has not changed during 1990s. In fact, one is impressed by the stability of the correlation coefficients over the years. The relationship of rural NFE with WPR (15+) in 1999–2000 remained the same as in 1993–4. Similarly, the correlations of the former with unemployment rates by usual and daily status are positive and have reported a marginal increase. Its correlation is negative with rural poverty and positive with per capita income but both are statistically insignificant. All this would seriously discount the thesis of a healthy growth of non-agricultural activities in rural areas leading to economic development. Not withstanding all this, its positive relationship with social development indicators stand out even in the late 1990s.

The share of NFE in urban areas across the states, however, shows a distinctly different pattern. It is positively related with WPR (15+) and negatively with the two unemployment rates, noted above. These values of correlation coefficients suggest that the increase in employment in trade, commerce and manufacturing is *not* due to high unemployment or lack of opportunities elsewhere. On the contrary, the states wherein the NFE is high have high work participation and low unemployment rate. Non-farm activities, therefore, do not necessarily constitute a residual sector in urban areas. The share of NFE relates positively with per capita income and negatively with urban poverty, implying that the former is high in relatively developed states. Both these correlation coefficients are significant at 1% level (Table A1, see Annex).

The relationships of NFE with socio-economic indicators for urban areas further improved during the 1990s. The correlation between NFE and WPR increased in the 1990s, going up from 0.05 in 1993–4 to 0.20 in 1999–2000. Similarly, the correlation of the former with per capita income has gone up from 0.09 to 0.35. Correspondingly, the negative correlation between NFE and urban poverty has strengthened, the value increasing from 0.49 to 0.55. The only disturbing phenomenon is the correlation between NFE and unemployment rates. This was negative (though insignificant) in 1993–4, as one would expect, if NFE has the desirable impact on labour market. Unfortunately, this has turned positive (insignificant again) in 1999–2000, implying that the states having high NFE may not have low unemployment rates. This can, however, be attributed to in-migration from other states among which the unemployment rate is likely to be very high.

The level and growth in urbanisation is expected to have a positive impact on the level of NFE in rural areas. Unfortunately, in the present analysis, the latter does not exhibit a significant relationship with the level of urbanisation both in the 1980s and 1990s, the correlation coefficients working out as 0.216 and -0.035 respectively (Table A1, see Annex). Arguably, the levels of urbanisation in the states have not led to an increase in rural non-farm activities. Unfortunately, the relationship has worsened over the 1990s compared to the previous decade.

Similarly, the level of NFE in rural areas has no significant relationship with the growth of the urban population during the 1980s. The 1990s, however, witness a strong negative correlation, -0.334, which implies that the states with higher growth of urban population report lower levels of NFE. It is pertinent to note here that during the 1990s, many of the developed and highly urbanised states reported high urban growth, unlike the pattern observed earlier. Unfortunately, however, this process of urbanisation has not resulted in higher non-farm job opportunities for the rural labour force. Moreover, the persons engaged in traditional occupations, such as artisans, craftsmen, carpenters, goldsmiths, blacksmiths, etc have been badly hit by the state-of-the-art technological innovations during the post-reform era and forced to leave their profession. The incremental labour force, thus, seem to be switching over to the farm activities not by choice but by compulsion. Therefore, rural NFE has become more of a residual sector with an increase in urbanisation.

Looking at the size class distribution of urban centres, the level of NFE in rural areas reports a negative and significant relationship with the share of small towns (class IV to VI) in the total urban population in 1991. This suggests that the states with a high share of urban population in small and medium towns tend to have low incidence of NFE in rural areas. In 1999–2000, the relationship between rural NFE and the level of urban population in small towns is statistically insignificant. Furthermore, the correlations between the growth of small towns and level of rural NFE are not significant at all for the 1980s and 1990s (Table A1, see Annex). There is thus no evidence that small and medium towns help in promoting non-agricultural activities in the rural hinterland.

The population growth of class I cities and rural NFE are negatively correlated and the relationship became stronger during the 1990s compared to the 1980s, increasing from -0.13 to -0.518. Importantly, the correlation of urban growth with rural NFE shows a similar pattern, as noted above. Further, the correlations between the growth of large cities and the growth of the overall urban population, across the states, are positive and significant, the coefficients being 0.669 and 0.696, respectively. It is, therefore, not surprising that rapid growth in class I cities should be associated with low levels of NFE. One can conclude that the process of urbanisation during the 1990s, which has been strongly linked with the growth of class I cities that have attracted much of the infrastructural and industrial investment, has failed in disseminating growth, resulting in low levels of employment outside agriculture in rural areas.

4 Spatial Variation of Development Indicators around Urban Centres

The present section[6] analyses the impact of urban processes on the welfare of rural households (HH), intermediated through distance. The data used in this section are from the survey undertaken by NCAER in 1993–4, for constructing Human Development Index (HDI). It covered 33,230 rural HH across 16 states, spread over 1,765 villages in 195 districts. The distance of a village from its nearest town has been ascertained from the 1991 Population Census. The indicators, pertaining to three socio-economic dimensions, have been built by aggregating HH data at the village level, giving equal weights to all the HH.

On the dimension of *economic well-being*, two crucial indicators are per capita income and the size of land holdings per HH. Further, wages paid to male and female agricultural workers, non-agricultural workers and child workers have been included separately for males and females. Average size of HH is obtained as the number of persons per HH, averaged at the village level.

In the *health dimension*, infant and child mortality rates have been included. These are calculated as the number of deaths among children of less than a year and the number of deaths in the age group of 1–5 years, per 1,000 live births. Information on major diseases such as epilepsy, hypertension, diabetes mellitus, heart diseases, mental illness, tuberculosis, leprosy, etc are available from the survey. Information has also been gathered on short duration sicknesses, e.g. diarrhoea, coughs, colds and fevers. The cost incurred by HH for consulting physicians, buying medicines, travel, hospitalisation, etc have been disaggregated by the nature of illness, namely short- and long-term. Expenditures incurred in treating short and long-term ailments have been considered separately.

For articulating the *educational dimension*, the literacy rate has been calculated as the percentage of persons who can read and write in the age group of 7 years and above to the total population in the village. The percentage of children (in the age group 6–14 years) enrolled in a formal school to the total children in the concerned age group has been taken in as the primary enrolment rate. Expenditure on books, stationary, uniforms, private coaching, transport, boarding and lodging and school examination have been included to articulate private expenditure.

Development economists have often stipulated that the values of socio-economic indicators tend to decline linearly with distance in the rural hinterland. It may nonetheless be argued that space incorporates imperfection, leading to a departure from linearity. In view of this, the relationships among the selected indicators have been analysed using rudimentary non-parametric plots known as cubic splines, as given in the figures below. This has been done to see if there exists a non-linear relationship between the indicators and distance and whether it changes at different intervals.

The most striking feature noted in the graphs is that the trends reverse or show significantly different gradients after a certain distance. This shift occurs within a distance of about 15–20 km from the city/town. This implies that the elasticity with respect to distance changes in the vicinity of urban centres. This is an important observation and has wider ramifications in the context of the impact of an urban centre on its hinterland. Given this pattern, it would be interesting to go into the details of the relationships of the selected indicators with distance, identify the distance at which the break points occur and examine whether there is any commonality in the pattern.

Figure 1 presents the relationship between distance and per capita income at the village level, showing a declining trend. Importantly, the decline is very steep in the immediate vicinity of the urban centre. The break point occurs at a distance of 15 km, after which the slope becomes less

6 The analysis depends heavily on a paper written for NCAER written by Kundu et al (2002).

steep. One can infer that per capita income falls drastically in the immediate vicinity of the town but the fall becomes smooth thereafter. The steep decline could be due to migration of people from distant rural areas and their absorption in the immediate rural periphery. Many among the migrants, coming to urban centres in search of jobs, seem to be pushed to this periphery which acts as a dormitory for the city or town. Fast increasing HH sizes in the peripheries and a reversal, as seen in Figure 2, is also an indication of the absorption of large number of migrants in the peripheral region.

Figure 1 Distance (km) and per capita income (Rs.)

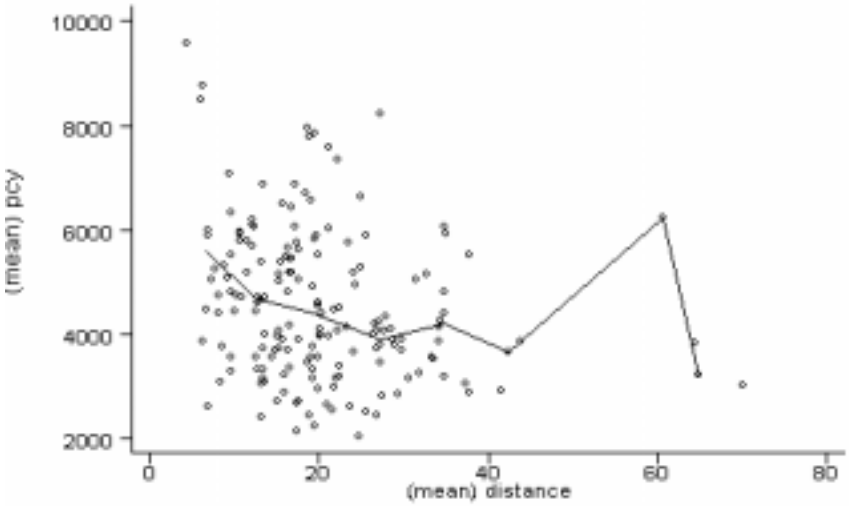
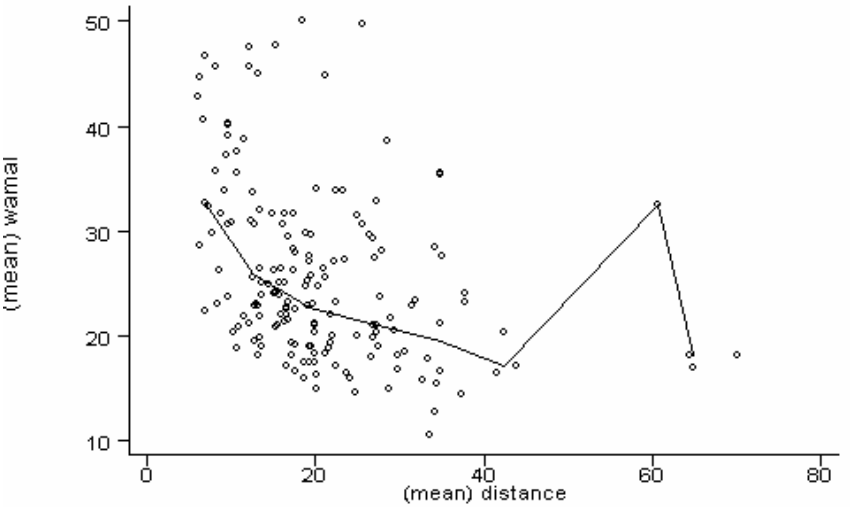


Figure 2 Distance (km) and household size



Wage rates, for both males and females, decline systematically with distance (Figures 3 and 4). The rate of decline, however, is much sharper within a radius of 20 km, after which wages continue to fall but at a much slower pace. This is similar to what has been noted for per capita income. This decline in the immediate periphery can, once again, be attributed to poor migrants arriving in urban centres for employment and finally landing up (working or residing) in the neighbouring villages. The size of land holdings also declines with an increase in distance much more steeply in the immediate peripheries up to a distance of about 20 km. (Figure 5). This, too, can be explained in terms of the absorption of a large majority of the migrants in the nearby villages and significant the decrease the size of the landholding, as a consequence. This obviously does not happen at this scale beyond a distance of 20–22 km.

Figure 3 Distance (km) and wage (Rs.) for male agricultural labour

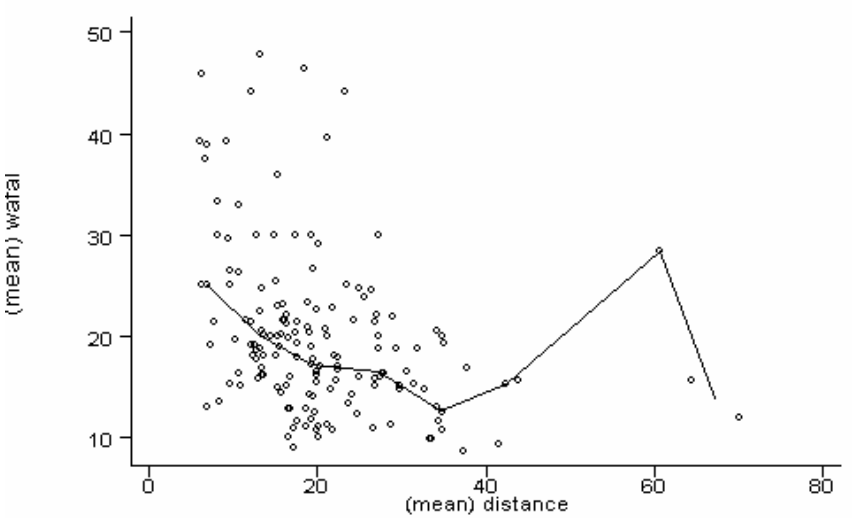


Figure 4 Distance (km) and wage (Rs.) for female agricultural labour

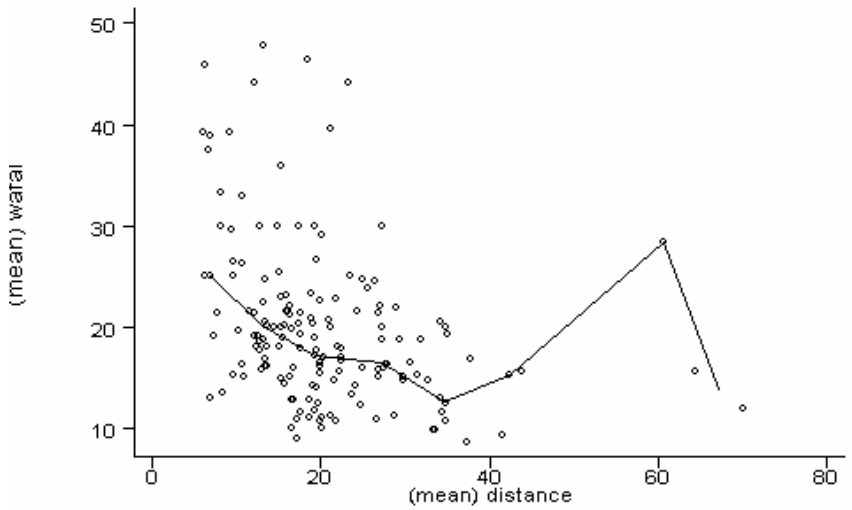
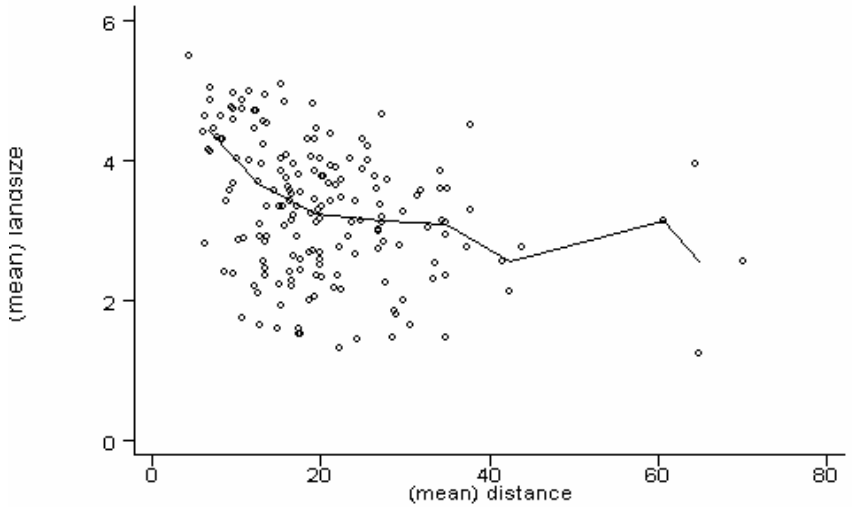


Figure 5 Distance (km) and size of landholding (acres)



As far as the health indicators are concerned, they show a declining trend with distance, as expected. Both infant and child mortality rates increase sharply with an increase in distance (Figures 6 and 7). One would argue that the villages away from urban centres lack in health facilities, leading to a larger number of deaths among infants as well as children below 14 years. Short-term morbidity also shows a positive relationship with distance which, once again, can be explained in terms of a decline in the level of medical facilities, away from the urban centres (Figure 8).

Figure 6 Distance (km) and infant mortality

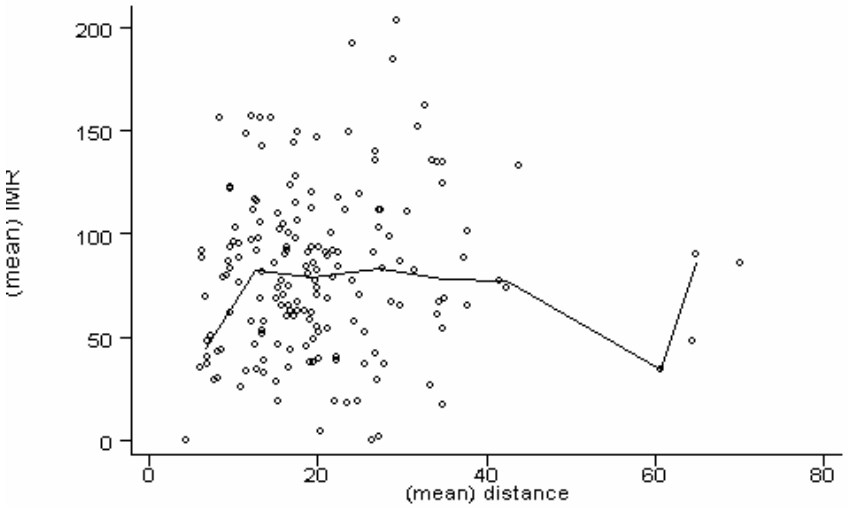


Figure 7 Distance (km) and child mortality

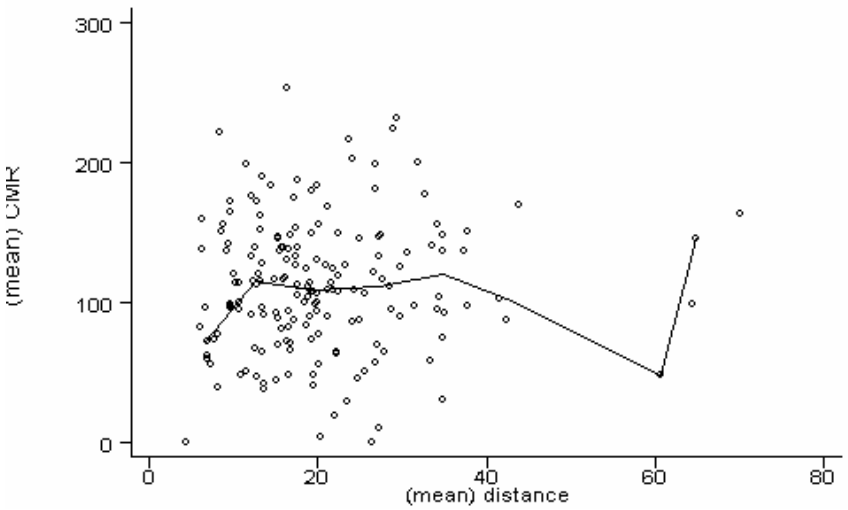
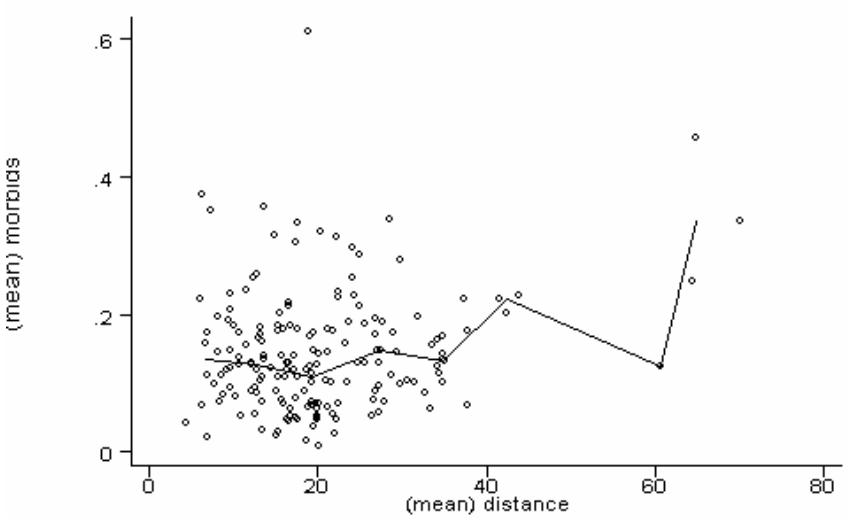
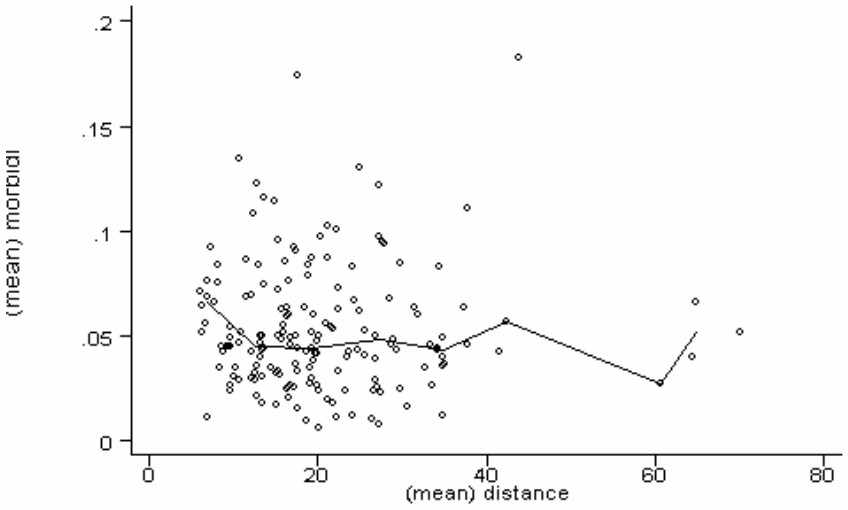


Figure 8 Distance (km) and short duration morbidity



Long duration morbidity shows a negative correlation with distance, implying that the incidence of sickness closer to the urban centres is higher than in villages away from them (Figure 9). Certain diseases, such as hypertension, heart diseases, etc would possibly have a higher toll in urban centres, due to the tensions of an urban environment. Further, a large number of poor migrants who cannot afford shelter in the city/town reside in villages just outside the urban limits. Their nutrition and health status would be low which partly explains the high morbidity near the urban centres. The possibility of greater awareness about such long-term medical problems resulting in a higher incidence of reporting can also not be ruled out as a contributory factor.

Figure 9 Distance (km) and long duration morbidity



Expenditure on treating illness, both of a short and long term nature, show a negative relationship with distance. The combined expenditure on health also decreases with an increase in distance. Understandably, in remote villages, people have low affordability because of their low income levels. They are mostly dependent on public health facilities and spend less money in availing themselves of private facilities.

The distributional pattern in the case of the indicators of educational development confirms the thesis of degenerated peripheralisation, built on the basis of the analysis of economic and health related indicators (Kundu, 1995). The literacy rate (7+ age group) declines sharply in the immediate

periphery of the cities/towns, but tends to stabilise thereafter (Figure 10). This obviously is due to the absorption of a large number of poor and illiterate migrants in the immediate hinterland. The same is true for enrolment rates wherein the decline is sharper still (Figure 11). In fact, after the initial decline, the enrolment rate tends increase slightly after 15 km and thereafter it stabilises. This suggests that the percentage of school going children in the periphery villages is less than even that of the distant villages. This is possibly due to a high incidence of child labour and/or the incapacity of poor migrants residing in the peripheral villages to send their children to formal educational institutions.

Figure 10 Distance (km) and percentage of literacy in 7+ age group

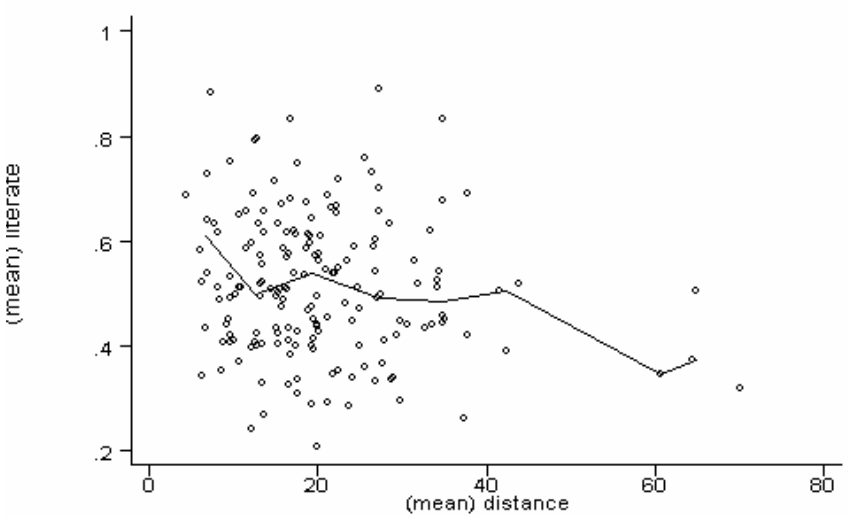
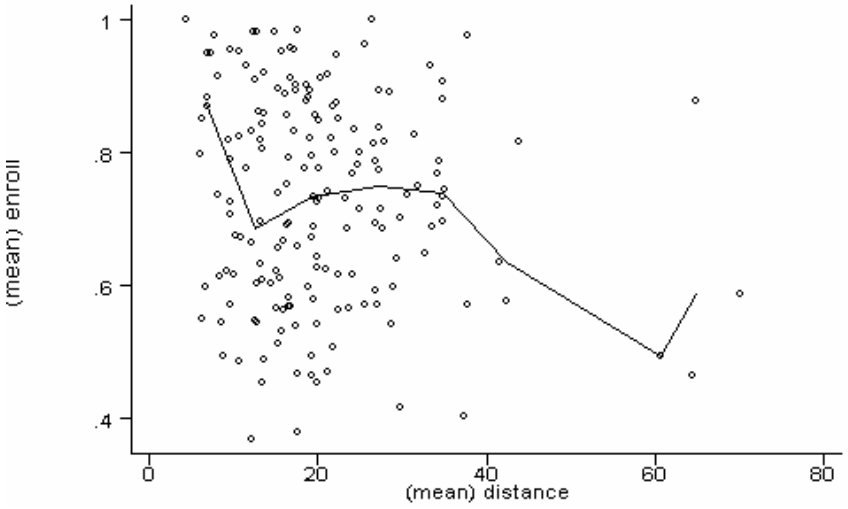
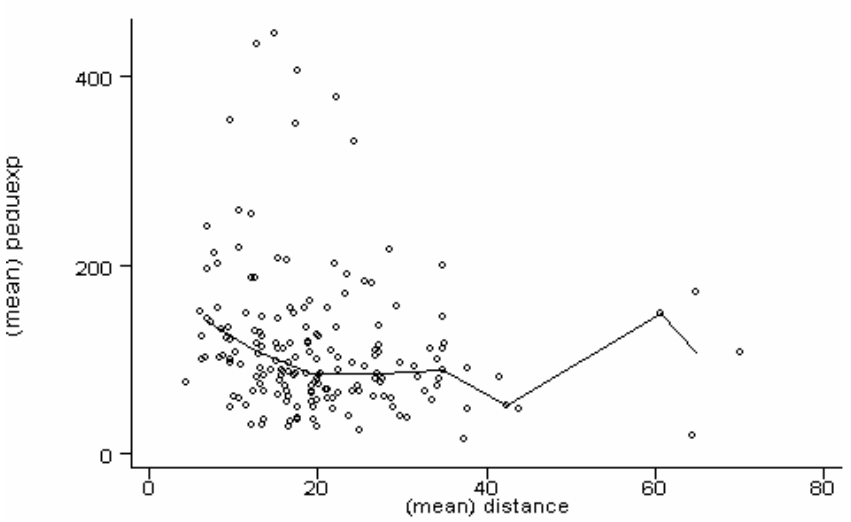


Figure 11 Distance (km) and enrolment in 6–14 age group



There is a decrease in per capita expenditure on education with distance. However, it is important that the rate of decline is much sharper in the immediate periphery as compared to the distant areas (Figure 12). This is similar to what is noted in the case of per capita income, wage rates etc. One can infer that the gap in income levels and consequently the capacity to spend on education between the city and the immediate periphery is very high, resulting in a steep slope. The decline thereafter is marginal. All these reflect an absence of a continuum in space around the urban centres in the country.

Figure 12 Distance (km) and public expenditure (Rs.) on education



5 A Policy Perspective for the Growth of NFE and Poverty Alleviation

The analysis of the relationship between the incidence of NFE with the levels and nature of employment and unemployment, poverty and other socio-economic indicators suggests that high shares of NFE are not necessarily linked to healthy economic development in rural areas. The incidence of NFE is neither associated with levels of employment nor with the creation of adequate means of livelihood, leading to low levels of poverty. During 1987–93, there was a dramatic decline in the growth of NFE (particularly for females), compared to the preceding five-year period. Nonetheless, there was an increase in part-time, short duration, casual employment, resulting in a low rate of unemployment. The work participation rate increased primarily due to an increase in jobs by weekly and daily status. Although these offered low earnings to the workers, many among them could earn enough to pull themselves out of poverty. The slowing down in the growth of NFE during 1987–93, thus, was not seen as a negative phenomenon.

The development process in the late 1990s shows that the reasonably high growth in NFE in rural areas has not brought forth a significant increase in total employment – neither of a regular nor a self-employment variety. While it is not possible to argue that this has accentuated poverty, certainly a lack of demand for food grains, on the face of decline in off-take from PDS and dwindling intake of major nutrients in per capita terms, appear very alarming. The importance of the informal labour market in poverty alleviation, therefore, should not be underestimated, at least in the short run.

Casualisation of the labour force has been linked with exploitation and low productivity both in rural and urban areas. It has often been attributed to a deep penetration of markets as a result of economic reforms in the country. Indeed, this process has rendered many of the HH-based activities non-viable. The late 1990s, however, witnessed a slowing down in the growth of casual employment. This, in the absence of formal job opportunities coming up in public or private enterprises, pushed up the unemployment rate, which has hit the sustainability of low-income HHs.

It is important to note the decline in the rate of growth of NFEs in the rural areas during 1993–2000, compared to 1983–93. In urban areas, however, the deceleration is much less. This certainly questions the proposition regarding dramatic slowing down of the process of sectoral diversification at the national level. One can see that much of the growth in NFE has taken place in terms of the urban informal sector. The growth in NFE has taken place in small and medium towns and the peripheries of large cities, as there is no scope for its increase in the latter. Understandably, some of this growth must have spilled over to the rural hinterland of these cities.

However, analysis of the spatial variations in development and socio-economic amenities presents a disturbing situation. There is a sharp decline in the levels of per capita income in the rural areas within a distance of 0–15 km, despite the high percentage of non-agricultural employment. This implies that the economic activities pushed out to the rural hinterland have a significantly lower earning/productivity than their counterparts in urban areas. Further, the wage rates in agriculture both for males and females have declined very sharply in the immediate hinterland, along with the size of the landholdings. Correspondingly, indicators of social development (enrolment at schools, per capita expenditure on education and health, etc) show a sharp decline with distance in the periphery. All these seriously question the hypothesis regarding the rural-urban continuum and healthy interdependencies between towns and their hinterlands. It appears that the peripheries of urban centres are degenerating due to the pushing out of low productivity activities and the absorption of low skilled rural migrants. Given this trend, the growth of non-farm employment in small towns and city peripheries may not be viewed as a positive development.

The other disturbing factor is the dismal performance and volatility of the agricultural sector, which provides employment to a large number of the poor. In the absence of any social security system in rural areas, negative or low growth in this sector can push many HHs below the poverty line. Stabilising agricultural growth through infrastructural investment in the public sector should, therefore, be a major step in alleviating poverty on a sustainable basis in rural areas.

The capacity of agriculture to absorb a large proportion of the incremental labour force is, however, limited. Several districts, spread over a number of states, report no increase in labour productivity (Bhalla and Singh, 2001). The problem of agriculture in the 1990s, besides its low growth, has been its regional disparity. Barring a handful of states such as Punjab, Haryana, Uttar Pradesh, West Bengal, Karnataka, Madhya Pradesh and Assam, others have reported no increase in food grain production during the past seven years. The percentage of people below the poverty line among the agricultural HH has been noted as very high. It would, therefore, be erroneous to expect agriculture to take the major burden of labour absorption in future years. The Special Group on Targeting Ten Million Employment Opportunities Per Year (Planning Commission 2002) has also come to the conclusion that despite significant investment made to develop rural infrastructure and marketing facilities, the employment elasticity is likely to be as low as 0.01, as observed during the late 1990s.

The only way that the incremental labour force in rural areas can be meaningfully employed is through sectoral diversification. However, mere growth of NFE need not be as healthy as this may occur due to people seeking shelter in activities outside farming, as a residual sector, as their last resort. Industries and some of the service activities that have high employment potential and are linked with other productive sectors should be encouraged to bring about sectoral diversification by creating jobs at higher levels of productivity.

The number of jobs thus created within farm and non-farm sectors may not be high, but the infrastructural development strategy should result in higher productivity, which is the need of the hour. Special care must be taken to cover the backward states and drought-prone areas that still depend on the production of coarse cereals, demand for which has shrunk over the years.

Indeed, the capacity of the government to generate employment directly through anti-poverty programmes would remain limited, due to the high cost of administration and leakages. Past experiences suggest that their impact in creating assets for income generation at HH level, on a long-term basis, has been marginal. Banks and other financial institutions have shown an extreme unwillingness to finance these, as the risk of non-recovery is very high. The experience of involving the local bodies in the programmes has not been very encouraging, as it has created ‘contractocracy’. It is, therefore, recommended that anti-poverty programmes should primarily be focused on the creation of economic infrastructure, provision of basic amenities and strengthening the RU linkages. These are likely to be more effective if the community can be involved in the projects through a process of social mobilisation.

Constitutional amendment for the decentralisation of financial powers has proved to be inadequate for generating resources at the *panchayat* and town level. Efforts must be backed up by an actual devolution of powers and responsibilities and their use by the municipal bodies to enable them to take up anti-poverty programmes. It has been noted that manufacturing activities at the town level show a strong relationship with the availability of infrastructure and services. One may, therefore, argue that the provision of infrastructure and basic amenities, besides being a goal in itself, would help in generating non-agricultural employment and diversifying their economic base in a select set of large villages and small towns. It is employment generation outside agriculture in a spatially dispersed manner that holds the key to the strategy of poverty alleviation in the country. This cannot be done without the state taking the responsibility of creating the appropriate economic environment and adequate infrastructural support for this purpose.

Annex

Table A1 Correlation among indicators of NFE and various dimensions of socio-economic development

sl.	Indicators	NFE R 93–4	NFE U 93–4	NFE R 99–00	NFE U 99–00	WPR-RM 15+ 93–4	WPR-UM 15+ 93–4	WPR RM 15+ 99	WPR - UM 15+ 99	Unemp RM 93	Unemp RF 93	Unemp RP 93	Unemp UM 93	Unemp UF 93	Unemp UP 93
1	NFE R 93–4	1.000	-0.152	.948(**)	0.473	-.565(*)	0.236	-.621(*)	0.210	.592(*)	.578(*)	.610(*)	0.206	0.457	0.451
2	NFE U 93–4	-0.152	1.000	-0.136	.600(*)	0.012	0.048	0.095	0.055	-0.068	-0.138	-0.134	-0.014	0.234	0.002
3	NFE R 99–00	.948(**)	-0.136	1.000	0.440	-.724(**)	0.066	-.731(**)	0.062	.777(**)	.768(**)	.792(**)	0.312	.641(*)	.593(*)
4	NFE U 99–00	0.473	.600(*)	0.440	1.000	-0.238	0.080	-0.225	0.197	0.322	0.299	0.300	0.145	0.503	0.335
5	WPR RM 15+ 93–4	-.565(*)	0.012	-.724(**)	-0.238	1.000	0.076	.919(**)	0.198	-.789(**)	-.726(**)	-.764(**)	-0.287	-.595(*)	-0.511
6	WPR UM 15+ 93–4	0.236	0.048	0.066	0.080	0.076	1.000	-0.085	.800(**)	-0.374	-0.309	-0.350	-.761(**)	-0.448	-.636(*)
7	WPR RM 15+ 99	-.621(*)	0.095	-.731(**)	-0.225	.919(**)	-0.085	1.000	0.071	-.612(*)	-.582(*)	-.611(*)	-0.183	-0.384	-0.352
8	WPR - UM 15+ 99	0.210	0.055	0.062	0.197	0.198	.800(**)	0.071	1.000	-0.225	-0.139	-0.185	-.545(*)	-0.272	-0.403
9	Unemp RM 93	.592(*)	-0.068	.777(**)	0.322	-.789(**)	-0.374	-.612(*)	-0.225	1.000	.967(**)	.990(**)	.587(*)	.897(**)	.852(**)
10	Unemp RF 93	.578(*)	-0.138	.768(**)	0.299	-.726(**)	-0.309	-.582(*)	-0.139	.967(**)	1.000	.990(**)	0.474	.877(**)	.784(**)
11	Unemp RP 93	.610(*)	-0.134	.792(**)	0.300	-.764(**)	-0.350	-.611(*)	-0.185	.990(**)	.990(**)	1.000	.549(*)	.883(**)	.831(**)
12	Unemp UM 93	0.206	-0.014	0.312	0.145	-0.287	-.761(**)	-0.183	-.545(*)	.587(*)	0.474	.549(*)	1.000	.631(*)	.901(**)
13	Unemp UF 93	0.457	0.234	.641(*)	0.503	-.595(*)	-0.448	-0.384	-0.272	.897(**)	.877(**)	.883(**)	.631(*)	1.000	.884(**)
14	Unemp UP 93	0.451	0.002	.593(*)	0.335	-0.511	-.636(*)	-0.352	-0.403	.852(**)	.784(**)	.831(**)	.901(**)	.884(**)	1.000
15	Unemp RM 99	.729(**)	-0.162	.828(**)	0.390	-.691(**)	-0.301	-.634(*)	-0.148	.890(**)	.842(**)	.887(**)	.672(**)	.777(**)	.856(**)
16	Unemp RF 99	.679(**)	-0.291	.820(**)	0.276	-.683(**)	-0.285	-.587(*)	-0.103	.938(**)	.970(**)	.970(**)	0.510	.802(**)	.792(**)
17	Unemp RP 99	.732(**)	-0.276	.849(**)	0.314	-.699(**)	-0.305	-.628(*)	-0.131	.930(**)	.925(**)	.950(**)	.605(*)	.789(**)	.840(**)
18	Unemp UM 99	0.089	0.204	0.238	0.374	-0.269	-.811(**)	-0.165	-.688(**)	.528(*)	0.446	0.489	.861(**)	.673(**)	.805(**)
19	Unemp UF 99	.527(*)	-0.013	.709(**)	0.454	-.670(**)	-0.500	-0.495	-0.322	.948(**)	.937(**)	.946(**)	.622(*)	.937(**)	.881(**)
20	Unemp UP 99	0.399	-0.003	.569(*)	0.411	-.537(*)	-.704(**)	-0.403	-.529(*)	.833(**)	.785(**)	.818(**)	.829(**)	.860(**)	.939(**)
21	Daily Unemp RM 93	.733(**)	-0.128	.728(**)	0.312	-.532(*)	-0.091	-0.408	-0.087	.663(**)	.528(*)	.606(*)	0.507	.543(*)	.642(**)
22	Daily Unemp RF 93	.746(**)	-0.123	.824(**)	0.464	-.532(*)	-0.219	-0.407	-0.038	.856(**)	.823(**)	.848(**)	.564(*)	.804(**)	.814(**)
23	Daily Unemp RP 93	.771(**)	-0.161	.789(**)	0.353	-.553(*)	-0.126	-0.431	-0.072	.744(**)	.637(*)	.702(**)	.540(*)	.629(*)	.712(**)

24	Daily Unemp UM 93	.608(*)	-0.346	.621(*)	0.157	-0.404	-0.389	-0.324	-0.305	.655(**)	.559(*)	.632(*)	.777(**)	.549(*)	.806(**)
25	Daily Unemp UF 93	.634(*)	0.063	.760(**)	.525(*)	-.585(*)	-0.390	-0.404	-0.221	.906(**)	.872(**)	.894(**)	.664(**)	.949(**)	.912(**)
26	Daily Unemp UP 93	.684(**)	-0.271	.732(**)	0.284	-0.499	-0.377	-0.389	-0.252	.787(**)	.717(**)	.773(**)	.753(**)	.707(**)	.875(**)
27	Daily Unemp RM 99	.832(**)	-0.248	.798(**)	0.395	-0.393	-0.131	-0.383	-0.017	.638(*)	.577(*)	.631(*)	.569(*)	.551(*)	.703(**)
28	Daily Unemp RF 99	.774(**)	-0.066	.780(**)	.558(*)	-0.363	-0.250	-0.320	-0.073	.695(**)	.679(**)	.704(**)	.615(*)	.729(**)	.799(**)
29	Daily Unemp RP 99	.832(**)	-0.217	.810(**)	0.443	-0.404	-0.168	-0.385	-0.035	.672(**)	.625(*)	.672(**)	.591(*)	.610(*)	.743(**)
30	Daily Unemp UM 99	.550(*)	-0.302	.658(**)	0.247	-0.475	-.540(*)	-0.409	-0.350	.798(**)	.754(**)	.794(**)	.814(**)	.720(**)	.904(**)
31	Daily Unemp UF 99	.560(*)	-0.101	.716(**)	0.408	-.628(*)	-0.498	-0.471	-0.304	.938(**)	.921(**)	.941(**)	.677(**)	.902(**)	.907(**)
32	Daily Unemp UP 99	.590(*)	-0.294	.713(**)	0.284	-.547(*)	-0.507	-0.459	-0.308	.868(**)	.841(**)	.873(**)	.760(**)	.778(**)	.909(**)
33	Lit R 1991	.766(**)	-0.229	.749(**)	0.340	-.656(**)	0.118	-.611(*)	0.275	.718(**)	.689(**)	.722(**)	0.313	0.501	.545(*)
34	Lit U 1991	.652(**)	-0.186	.622(*)	0.277	-.574(*)	0.017	-0.481	0.167	.667(**)	.620(*)	.659(**)	0.388	0.511	.580(*)
35	Lit R 2001	.738(**)	-0.323	.706(**)	0.283	-.574(*)	0.241	-.611(*)	0.336	.598(*)	.615(*)	.620(*)	0.206	0.385	0.428
36	Lit U 2001	.605(*)	-0.052	.638(*)	0.398	-.587(*)	-0.070	-0.468	0.056	.757(**)	.739(**)	.748(**)	0.455	.703(**)	.690(**)
37	PR 93	-0.308	0.174	-0.168	-0.014	-0.042	-.852(**)	0.062	-.719(**)	0.151	0.028	0.090	.675(**)	0.266	0.463
38	PU 93	-0.465	-0.496	-.563(*)	-.534(*)	.638(*)	-0.209	.599(*)	-0.095	-0.488	-0.507	-0.493	0.065	-.527(*)	-0.216
39	PR 99	-0.421	0.232	-0.276	-0.060	0.125	-.821(**)	0.228	-.662(**)	0.091	-0.003	0.036	.686(**)	0.267	0.451
40	PU 99	-0.495	-0.488	-0.503	-.549(*)	0.450	-.518(*)	0.424	-0.414	-0.296	-0.339	-0.309	0.344	-0.357	0.014
41	PCI 93	0.221	0.198	0.077	0.284	-0.202	.748(**)	-0.306	.671(**)	-0.122	-0.113	-0.122	-0.448	-0.214	-0.338
42	PCI 00	0.418	0.093	0.243	0.350	-0.236	.756(**)	-0.344	.679(**)	-0.043	-0.036	-0.039	-0.401	-0.155	-0.254
43	IMR 98–9	-.765(**)	0.156	-.676(**)	-0.494	0.510	-0.225	0.480	-0.300	-.533(*)	-0.509	-.540(*)	-0.167	-0.410	-0.410
44	CMR 98–9	-.715(**)	-0.021	-.647(**)	-.582(*)	.536(*)	-0.274	0.470	-0.222	-.529(*)	-0.482	-0.508	-0.078	-0.424	-0.332
45	URPOP91	0.216	0.003	-0.025	0.264	0.204	.666(**)	0.099	.764(**)	-0.294	-0.270	-0.280	-0.430	-0.344	-0.363
46	URPOP01	0.186	0.065	-0.035	0.224	0.161	.718(**)	0.063	.788(**)	-0.295	-0.290	-0.299	-0.440	-0.343	-0.380
47	URG81_91	0.176	-.554(*)	0.291	-0.225	-0.395	-0.183	-0.418	-0.212	0.405	0.510	0.470	0.103	0.178	0.222
48	URG91_01	-0.363	.523(*)	-0.334	-0.089	-0.105	0.304	-0.110	0.114	-0.340	-0.430	-0.411	-0.371	-0.310	-0.458
49	URLAR91	0.299	0.458	0.172	.796(**)	-0.019	0.061	-0.004	0.179	0.042	-0.013	0.008	0.100	0.219	0.176

50	URLAR01	0.329	0.035	0.098	0.452	0.147	0.339	0.064	0.322	-0.208	-0.200	-0.189	-0.205	-0.197	-0.165
51	URSM91	-0.442	0.082	-0.213	-0.442	-0.135	-0.260	-0.077	-0.264	0.086	0.122	0.082	0.063	0.095	0.018
52	URSM01	-0.100	0.235	0.087	-0.103	-0.239	-0.040	-0.210	-0.005	0.229	0.206	0.190	0.166	0.268	0.181
53	URGSM91	0.083	0.215	0.097	0.233	-0.111	-0.167	-0.203	-0.343	-0.065	-0.054	-0.049	0.080	0.038	0.038
54	URGLAR91	-0.130	-0.354	-0.111	-0.232	-0.066	0.268	-0.103	0.045	-0.069	0.058	-0.019	-0.465	-0.247	-0.364
55	URGLAR01	-.551(*)	0.426	-.518(*)	-0.246	0.014	0.045	0.062	-0.204	-0.398	-0.442	-0.437	-0.381	-0.368	-0.502
56	URGII01	-0.291	0.209	-0.254	-0.105	-0.164	0.102	-0.175	-0.242	-0.287	-0.266	-0.283	-0.349	-0.217	-0.367
57	URGIII01	-0.481	0.271	-0.436	-0.247	0.083	-0.022	0.015	-0.234	-0.462	-0.464	-0.465	-0.254	-0.381	-0.423
58	URGIV01	-0.451	0.075	-0.404	-0.187	-0.070	0.066	-0.100	-0.063	-0.318	-0.253	-0.287	-0.451	-0.328	-0.463
59	URGV01	0.047	0.209	0.137	-0.017	-.581(*)	-0.110	-.629(*)	-0.196	0.166	0.071	0.136	0.136	0.031	0.072
60	URGVI01	0.110	0.242	0.228	0.286	-.535(*)	0.270	-.625(*)	0.058	0.168	0.226	0.192	-0.272	0.140	-0.108

Continued.

sl.	Indicators	Unemp RM 99	Unemp RF 99	Unemp RP 99	Unemp UM 99	Unemp UF 99	Unemp UP 99	Daily Unemp RM 93	Daily Unemp RF 93	Daily Unemp RP 93	Daily Unemp UM 93	Daily Unemp UF 93	Daily Unemp UP 93	Daily Unemp RM 99	Daily Unemp RF 99	Daily Unemp RP 99
1	NFE R 93–4	.729(**)	.679(**)	.732(**)	0.089	.527(*)	0.399	.733(**)	.746(**)	.771(**)	.608(*)	.634(*)	.684(**)	.832(**)	.774(**)	.832(**)
2	NFE U 93–4	-0.162	-0.291	-0.276	0.204	-0.013	-0.003	-0.128	-0.123	-0.161	-0.346	0.063	-0.271	-0.248	-0.066	-0.217
3	NFE R 99–00	.828(**)	.820(**)	.849(**)	0.238	.709(**)	.569(*)	.728(**)	.824(**)	.789(**)	.621(*)	.760(**)	.732(**)	.798(**)	.780(**)	.810(**)
4	NFE U 99–00	0.390	0.276	0.314	0.374	0.454	0.411	0.312	0.464	0.353	0.157	.525(*)	0.284	0.395	.558(*)	0.443
5	WPR RM 15+ 93–4	-.691(**)	-.683(**)	-.699(**)	-0.269	-.670(**)	-.537(*)	-.532(*)	-.532(*)	-.553(*)	-0.404	-.585(*)	-0.499	-0.393	-0.363	-0.404
6	WPR UM 15+ 93–4	-0.301	-0.285	-0.305	-.811(**)	-0.500	-.704(**)	-0.091	-0.219	-0.126	-0.389	-0.390	-0.377	-0.131	-0.250	-0.168
7	WPR RM 15+ 99	-.634(*)	-.587(*)	-.628(*)	-0.165	-0.495	-0.403	-0.408	-0.407	-0.431	-0.324	-0.404	-0.389	-0.383	-0.320	-0.385
8	WPR UM 15+ 99	-0.148	-0.103	-0.131	-.688(**)	-0.322	-.529(*)	-0.087	-0.038	-0.072	-0.305	-0.221	-0.252	-0.017	-0.073	-0.035
9	Unemp RM 93	.890(**)	.938(**)	.930(**)	.528(*)	.948(**)	.833(**)	.663(**)	.856(**)	.744(**)	.655(**)	.906(**)	.787(**)	.638(*)	.695(**)	.672(**)
10	Unemp RF 93	.842(**)	.970(**)	.925(**)	0.446	.937(**)	.785(**)	.528(*)	.823(**)	.637(*)	.559(*)	.872(**)	.717(**)	.577(*)	.679(**)	.625(*)
11	Unemp RP 93	.887(**)	.970(**)	.950(**)	0.489	.946(**)	.818(**)	.606(*)	.848(**)	.702(**)	.632(*)	.894(**)	.773(**)	.631(*)	.704(**)	.672(**)
12	Unemp UM 93	.672(**)	0.510	.605(*)	.861(**)	.622(*)	.829(**)	0.507	.564(*)	.540(*)	.777(**)	.664(**)	.753(**)	.569(*)	.615(*)	.591(*)
13	Unemp UF 93	.777(**)	.802(**)	.789(**)	.673(**)	.937(**)	.860(**)	.543(*)	.804(**)	.629(*)	.549(*)	.949(**)	.707(**)	.551(*)	.729(**)	.610(*)
14	Unemp UP 93	.856(**)	.792(**)	.840(**)	.805(**)	.881(**)	.939(**)	.642(**)	.814(**)	.712(**)	.806(**)	.912(**)	.875(**)	.703(**)	.799(**)	.743(**)
15	Unemp RM 99	1.000	.889(**)	.964(**)	.563(*)	.860(**)	.830(**)	.741(**)	.868(**)	.809(**)	.768(**)	.854(**)	.856(**)	.822(**)	.806(**)	.836(**)
16	Unemp RF 99	.889(**)	1.000	.975(**)	0.421	.909(**)	.782(**)	.604(*)	.869(**)	.712(**)	.682(**)	.865(**)	.810(**)	.711(**)	.771(**)	.751(**)
17	Unemp RP 99	.964(**)	.975(**)	1.000	0.489	.897(**)	.818(**)	.684(**)	.885(**)	.777(**)	.759(**)	.871(**)	.863(**)	.793(**)	.811(**)	.821(**)
18	Unemp UM 99	.563(*)	0.421	0.489	1.000	.673(**)	.889(**)	0.324	0.476	0.371	.554(*)	.643(**)	.577(*)	0.392	.539(*)	0.438
19	Unemp UF 99	.860(**)	.909(**)	.897(**)	.673(**)	1.000	.925(**)	.591(*)	.855(**)	.687(**)	.633(*)	.942(**)	.779(**)	.637(*)	.765(**)	.690(**)
20	Unemp UP 99	.830(**)	.782(**)	.818(**)	.889(**)	.925(**)	1.000	.544(*)	.763(**)	.625(*)	.715(**)	.875(**)	.797(**)	.627(*)	.750(**)	.677(**)
21	Daily Unemp RM 93	.741(**)	.604(*)	.684(**)	0.324	.591(*)	.544(*)	1.000	.847(**)	.986(**)	.833(**)	.726(**)	.854(**)	.886(**)	.747(**)	.856(**)
22	Daily Unemp RF 93	.868(**)	.869(**)	.885(**)	0.476	.855(**)	.763(**)	.847(**)	1.000	.921(**)	.806(**)	.933(**)	.912(**)	.891(**)	.908(**)	.910(**)
23	Daily Unemp RP 93	.809(**)	.712(**)	.777(**)	0.371	.687(**)	.625(*)	.986(**)	.921(**)	1.000	.864(**)	.808(**)	.908(**)	.923(**)	.821(**)	.907(**)
24	Daily Unemp UM 93	.768(**)	.682(**)	.759(**)	.554(*)	.633(*)	.715(**)	.833(**)	.806(**)	.864(**)	1.000	.745(**)	.972(**)	.880(**)	.811(**)	.879(**)

25	Daily Unemp UF 93	.854(**)	.865(**)	.871(**)	.643(**)	.942(**)	.875(**)	.726(**)	.933(**)	.808(**)	.745(**)	1.000	.874(**)	.763(**)	.880(**)	.810(**)
26	Daily Unemp UP 93	.856(**)	.810(**)	.863(**)	.577(*)	.779(**)	.797(**)	.854(**)	.912(**)	.908(**)	.972(**)	.874(**)	1.000	.910(**)	.892(**)	.924(**)
27	Daily Unemp RM 99	.822(**)	.711(**)	.793(**)	0.392	.637(*)	.627(*)	.886(**)	.891(**)	.923(**)	.880(**)	.763(**)	.910(**)	1.000	.926(**)	.994(**)
28	Daily Unemp RF 99	.806(**)	.771(**)	.811(**)	.539(*)	.765(**)	.750(**)	.747(**)	.908(**)	.821(**)	.811(**)	.880(**)	.892(**)	.926(**)	1.000	.960(**)
29	Daily Unemp RP 99	.836(**)	.751(**)	.821(**)	0.438	.690(**)	.677(**)	.856(**)	.910(**)	.907(**)	.879(**)	.810(**)	.924(**)	.994(**)	.960(**)	1.000
30	Daily Unemp UM 99	.893(**)	.832(**)	.887(**)	.713(**)	.834(**)	.897(**)	.717(**)	.866(**)	.790(**)	.887(**)	.835(**)	.926(**)	.837(**)	.840(**)	.855(**)
31	Daily Unemp UF 99	.890(**)	.927(**)	.930(**)	.662(**)	.977(**)	.923(**)	.638(*)	.887(**)	.737(**)	.731(**)	.946(**)	.851(**)	.718(**)	.814(**)	.765(**)
32	Daily Unemp UP 99	.919(**)	.906(**)	.940(**)	.670(**)	.896(**)	.908(**)	.706(**)	.898(**)	.794(**)	.858(**)	.882(**)	.926(**)	.825(**)	.851(**)	.852(**)
33	Lit R 1991	.784(**)	.773(**)	.803(**)	0.081	.603(*)	0.450	.691(**)	.723(**)	.733(**)	.629(*)	.631(*)	.702(**)	.710(**)	.644(**)	.716(**)
34	Lit U 1991	.724(**)	.706(**)	.735(**)	0.121	.580(*)	0.450	.710(**)	.691(**)	.732(**)	.660(**)	.630(*)	.716(**)	.709(**)	.657(**)	.714(**)
35	Lit R 2001	.720(**)	.720(**)	.740(**)	0.004	0.506	0.359	.614(*)	.663(**)	.658(**)	.567(*)	.524(*)	.630(*)	.690(**)	.614(*)	.691(**)
36	Lit U 2001	.784(**)	.774(**)	.783(**)	0.320	.728(**)	.609(*)	.680(**)	.771(**)	.725(**)	.642(**)	.762(**)	.740(**)	.691(**)	.726(**)	.717(**)
37	PR-93	0.116	-0.014	0.045	.751(**)	0.263	.517(*)	0.073	0.048	0.051	0.250	0.203	0.202	0.015	0.091	0.030
38	PU-93	-0.362	-0.389	-0.368	-0.084	-0.426	-0.246	-0.102	-0.256	-0.149	0.086	-0.409	-0.076	-0.072	-0.213	-0.117
39	PR-99	0.056	-0.066	-0.022	.761(**)	0.196	0.474	-0.030	0.010	-0.038	0.200	0.168	0.148	-0.065	0.045	-0.045
40	PU-99	-0.195	-0.247	-0.208	0.244	-0.235	0.037	-0.116	-0.213	-0.143	0.211	-0.283	0.041	-0.080	-0.182	-0.109
41	PCI-93	-0.030	-0.091	-0.072	-.528(*)	-0.231	-0.398	-0.004	-0.120	-0.034	-0.230	-0.195	-0.206	-0.045	-0.125	-0.061
42	PCI-00	0.092	0.026	0.055	-0.506	-0.138	-0.318	0.175	0.043	0.147	-0.069	-0.074	-0.040	0.164	0.066	0.145
43	IMR 98–9	-.672(**)	-.612(*)	-.663(**)	-0.021	-0.510	-0.352	-.666(**)	-.654(**)	-.694(**)	-.545(*)	-.572(*)	-.621(*)	-.723(**)	-.664(**)	-.728(**)
44	CMR 98–9	-.646(**)	-.525(*)	-.584(*)	-0.079	-0.494	-0.346	-.640(*)	-.598(*)	-.650(**)	-0.419	-.533(*)	-0.508	-.593(*)	-.529(*)	-.591(*)
45	URPOP91	-0.128	-0.161	-0.146	-.571(*)	-0.313	-0.448	0.080	-0.038	0.049	-0.111	-0.215	-0.117	0.139	0.046	0.115
46	URPOP01	-0.142	-0.207	-0.187	-.596(*)	-0.348	-0.492	0.117	-0.049	0.067	-0.145	-0.238	-0.151	0.107	-0.014	0.071
47	URG81_91	0.250	.561(*)	0.452	0.074	0.373	0.308	0.014	0.245	0.110	0.304	0.234	0.322	0.138	0.190	0.180
48	URG91_01	-0.438	-.564(*)	-.545(*)	-0.308	-0.445	-0.479	-0.251	-.523(*)	-0.364	-.587(*)	-0.471	-.601(*)	-.556(*)	-.625(*)	-.596(*)
49	URLAR91	0.138	0.032	0.073	0.213	0.204	0.199	0.307	0.288	0.296	0.176	0.311	0.225	0.365	0.470	0.394
50	URLAR01	-0.101	-0.067	-0.060	-0.204	-0.127	-0.153	0.100	0.050	0.103	0.131	-0.006	0.104	0.239	0.266	0.261
51	URSM91	-0.170	-0.031	-0.119	0.102	-0.003	0.013	-0.355	-0.239	-0.346	-0.279	-0.119	-0.259	-0.494	-0.402	-0.478

52	URSM01	0.134	0.078	0.068	0.161	0.129	0.115	0.093	0.123	0.080	-0.063	0.121	-0.015	-0.074	-0.077	-0.093
53	URGSM91	-0.145	-0.044	-0.072	0.248	0.036	0.133	-0.159	-0.090	-0.135	0.038	0.059	0.021	-0.039	0.131	0.016
54	URGLAR91	-0.220	0.054	-0.072	-0.325	-0.105	-0.210	-0.331	-0.204	-0.285	-0.220	-0.246	-0.218	-0.328	-0.313	-0.308
55	URGLAR01	-.619(*)	-.579(*)	-.620(*)	-0.242	-0.462	-0.448	-.568(*)	-.737(**)	-.646(**)	-.651(**)	-.557(*)	-.689(**)	-.803(**)	-.756(**)	-.801(**)
56	URGII01	-0.469	-0.350	-0.410	-0.168	-0.260	-0.280	-0.452	-.524(*)	-0.485	-0.429	-0.323	-0.437	-.559(*)	-0.453	-.527(*)
57	URGIII01	-.614(*)	-.552(*)	-.585(*)	-0.123	-0.463	-0.371	-.616(*)	-.692(**)	-.659(**)	-.522(*)	-0.511	-.582(*)	-.696(**)	-.608(*)	-.678(**)
58	URGIV01	-0.491	-0.333	-0.407	-0.290	-0.290	-0.344	-.676(**)	-.643(**)	-.681(**)	-.617(*)	-0.468	-.606(*)	-.713(**)	-.614(*)	-.679(**)
59	URGV01	0.097	0.022	0.073	0.086	0.044	0.074	-0.061	-0.186	-0.094	-0.067	-0.053	-0.084	-0.171	-0.196	-0.169
60	URGVI01	0.112	0.122	0.110	-0.027	0.148	0.041	-0.254	-0.112	-0.211	-0.333	0.012	-0.232	-0.253	-0.182	-0.223

Continued.

sl.	Indicators	Daily Unemp UM 99	Daily Unemp UF 99	Daily Unemp UP 99	Lit R 1991	Lit U 1991	Lit R 2001	Lit U 2001	PR-93	PU-93	PR-99	PU-99	PCI-93	PCI-00	IMR-98-99	CMR 98-99
1	NFE R 93–4	.550(*)	.560(*)	.590(*)	.766(**)	.652(**)	.738(**)	.605(*)	-0.308	-0.465	-0.421	-0.495	0.221	0.418	-.765(**)	-.715(**)
2	NFE U 93–4	-0.302	-0.101	-0.294	-0.229	-0.186	-0.323	-0.052	0.174	-0.496	0.232	-0.488	0.198	0.093	0.156	-0.021
3	NFE R 99–00	.658(**)	.716(**)	.713(**)	.749(**)	.622(*)	.706(**)	.638(*)	-0.168	-.563(*)	-0.276	-0.503	0.077	0.243	-.676(**)	-.647(**)
4	NFE U 99–00	0.247	0.408	0.284	0.340	0.277	0.283	0.398	-0.014	-.534(*)	-0.060	-.549(*)	0.284	0.350	-0.494	-.582(*)
5	WPR RM 15+ 93–4	-0.475	-.628(*)	-.547(*)	-.656(**)	-.574(*)	-.574(*)	-.587(*)	-0.042	.638(*)	0.125	0.450	-0.202	-0.236	0.510	.536(*)
6	WPR UM 15+ 93–4	-.540(*)	-0.498	-0.507	0.118	0.017	0.241	-0.070	-.852(**)	-0.209	-.821(**)	-.518(*)	.748(**)	.756(**)	-0.225	-0.274
7	WPR RM 15+ 99	-0.409	-0.471	-0.459	-.611(*)	-0.481	-.611(*)	-0.468	0.062	.599(*)	0.228	0.424	-0.306	-0.344	0.480	0.470
8	WPR UM 15+ 99	-0.350	-0.304	-0.308	0.275	0.167	0.336	0.056	-.719(**)	-0.095	-.662(**)	-0.414	.671(**)	.679(**)	-0.300	-0.222
9	Unemp RM 93	.798(**)	.938(**)	.868(**)	.718(**)	.667(**)	.598(*)	.757(**)	0.151	-0.488	0.091	-0.296	-0.122	-0.043	-.533(*)	-.529(*)
10	Unemp RF 93	.754(**)	.921(**)	.841(**)	.689(**)	.620(*)	.615(*)	.739(**)	0.028	-0.507	-0.003	-0.339	-0.113	-0.036	-0.509	-0.482
11	Unemp RP 93	.794(**)	.941(**)	.873(**)	.722(**)	.659(**)	.620(*)	.748(**)	0.090	-0.493	0.036	-0.309	-0.122	-0.039	-.540(*)	-0.508
12	Unemp UM 93	.814(**)	.677(**)	.760(**)	0.313	0.388	0.206	0.455	.675(**)	0.065	.686(**)	0.344	-0.448	-0.401	-0.167	-0.078
13	Unemp UF 93	.720(**)	.902(**)	.778(**)	0.501	0.511	0.385	.703(**)	0.266	-.527(*)	0.267	-0.357	-0.214	-0.155	-0.410	-0.424
14	Unemp UP 93	.904(**)	.907(**)	.909(**)	.545(*)	.580(*)	0.428	.690(**)	0.463	-0.216	0.451	0.014	-0.338	-0.254	-0.410	-0.332
15	Unemp RM 99	.893(**)	.890(**)	.919(**)	.784(**)	.724(**)	.720(**)	.784(**)	0.116	-0.362	0.056	-0.195	-0.030	0.092	-.672(**)	-.646(**)
16	Unemp RF 99	.832(**)	.927(**)	.906(**)	.773(**)	.706(**)	.720(**)	.774(**)	-0.014	-0.389	-0.066	-0.247	-0.091	0.026	-.612(*)	-.525(*)
17	Unemp RP 99	.887(**)	.930(**)	.940(**)	.803(**)	.735(**)	.740(**)	.783(**)	0.045	-0.368	-0.022	-0.208	-0.072	0.055	-.663(**)	-.584(*)
18	Unemp UM 99	.713(**)	.662(**)	.670(**)	0.081	0.121	0.004	0.320	.751(**)	-0.084	.761(**)	0.244	-.528(*)	-0.506	-0.021	-0.079
19	Unemp UF 99	.834(**)	.977(**)	.896(**)	.603(*)	.580(*)	0.506	.728(**)	0.263	-0.426	0.196	-0.235	-0.231	-0.138	-0.510	-0.494
20	Unemp UP 99	.897(**)	.923(**)	.908(**)	0.450	0.450	0.359	.609(*)	.517(*)	-0.246	0.474	0.037	-0.398	-0.318	-0.352	-0.346
21	Daily Unemp RM 93	.717(**)	.638(*)	.706(**)	.691(**)	.710(**)	.614(*)	.680(**)	0.073	-0.102	-0.030	-0.116	-0.004	0.175	-.666(**)	-.640(*)
22	Daily Unemp RF 93	.866(**)	.887(**)	.898(**)	.723(**)	.691(**)	.663(**)	.771(**)	0.048	-0.256	0.010	-0.213	-0.120	0.043	-.654(**)	-.598(*)
23	Daily Unemp RP 93	.790(**)	.737(**)	.794(**)	.733(**)	.732(**)	.658(**)	.725(**)	0.051	-0.149	-0.038	-0.143	-0.034	0.147	-.694(**)	-.650(**)
24	Daily Unemp UM 93	.887(**)	.731(**)	.858(**)	.629(*)	.660(**)	.567(*)	.642(**)	0.250	0.086	0.200	0.211	-0.230	-0.069	-.545(*)	-0.419
25	Daily Unemp UF 93	.835(**)	.946(**)	.882(**)	.631(*)	.630(*)	.524(*)	.762(**)	0.203	-0.409	0.168	-0.283	-0.195	-0.074	-.572(*)	-.533(*)

26	Daily Unemp UP 93	.926(**)	.851(**)	.926(**)	.702(**)	.716(**)	.630(*)	.740(**)	0.202	-0.076	0.148	0.041	-0.206	-0.040	-.621(*)	-0.508
27	Daily Unemp RM 99	.837(**)	.718(**)	.825(**)	.710(**)	.709(**)	.690(**)	.691(**)	0.015	-0.072	-0.065	-0.080	-0.045	0.164	-.723(**)	-.593(*)
28	Daily Unemp RF 99	.840(**)	.814(**)	.851(**)	.644(**)	.657(**)	.614(*)	.726(**)	0.091	-0.213	0.045	-0.182	-0.125	0.066	-.664(**)	-.529(*)
29	Daily Unemp RP 99	.855(**)	.765(**)	.852(**)	.716(**)	.714(**)	.691(**)	.717(**)	0.030	-0.117	-0.045	-0.109	-0.061	0.145	-.728(**)	-.591(*)
30	Daily Unemp UM 99	1.000	.887(**)	.985(**)	.599(*)	.602(*)	.576(*)	.690(**)	0.343	-0.017	0.310	0.170	-0.325	-0.190	-0.484	-0.389
31	Daily Unemp UF 99	.887(**)	1.000	.945(**)	.642(**)	.631(*)	.546(*)	.737(**)	0.218	-0.354	0.159	-0.172	-0.212	-0.113	-.559(*)	-0.494
32	Daily Unemp UP 99	.985(**)	.945(**)	1.000	.660(**)	.649(**)	.617(*)	.731(**)	0.262	-0.127	0.216	0.054	-0.271	-0.139	-.545(*)	-0.446
33	Lit R 1991	.599(*)	.642(**)	.660(**)	1.000	.941(**)	.941(**)	.858(**)	-0.269	-0.325	-0.368	-0.330	0.426	.554(*)	-.883(**)	-.777(**)
34	Lit U 1991	.602(*)	.631(*)	.649(**)	.941(**)	1.000	.894(**)	.919(**)	-0.178	-0.195	-0.280	-0.243	0.405	.531(*)	-.880(**)	-.702(**)
35	Lit R 2001	.576(*)	.546(*)	.617(*)	.941(**)	.894(**)	1.000	.861(**)	-0.379	-0.224	-0.440	-0.276	0.491	.624(*)	-.854(**)	-.734(**)
36	Lit U 2001	.690(**)	.737(**)	.731(**)	.858(**)	.919(**)	.861(**)	1.000	-0.108	-0.287	-0.130	-0.284	0.292	0.406	-.792(**)	-.715(**)
37	PR 93	0.343	0.218	0.262	-0.269	-0.178	-0.379	-0.108	1.000	0.255	.931(**)	.528(*)	-.673(**)	-.697(**)	0.359	0.389
38	PU 93	-0.017	-0.354	-0.127	-0.325	-0.195	-0.224	-0.287	0.255	1.000	0.288	.891(**)	-0.324	-0.295	0.287	0.446
39	PR 99	0.310	0.159	0.216	-0.368	-0.280	-0.440	-0.130	.931(**)	0.288	1.000	.571(*)	-.709(**)	-.769(**)	0.511	0.467
40	PU 99	0.170	-0.172	0.054	-0.330	-0.243	-0.276	-0.284	.528(*)	.891(**)	.571(*)	1.000	-.532(*)	-.538(*)	0.410	0.497
41	PCI 93	-0.325	-0.212	-0.271	0.426	0.405	0.491	0.292	-.673(**)	-0.324	-.709(**)	-.532(*)	1.000	.964(**)	-.523(*)	-0.498
42	PCI 00	-0.190	-0.113	-0.139	.554(*)	.531(*)	.624(*)	0.406	-.697(**)	-0.295	-.769(**)	-.538(*)	.964(**)	1.000	-.681(**)	-.626(*)
43	IMR 98–9	-0.484	-.559(*)	-.545(*)	-.883(**)	-.880(**)	-.854(**)	-.792(**)	0.359	0.287	0.511	0.410	-.523(*)	-.681(**)	1.000	.861(**)
44	CMR 98–9	-0.389	-0.494	-0.446	-.777(**)	-.702(**)	-.734(**)	-.715(**)	0.389	0.446	0.467	0.497	-0.498	-.626(*)	.861(**)	1.000
45	URPOP91	-0.251	-0.260	-0.233	0.366	0.410	0.449	0.241	-.611(*)	0.123	-.664(**)	-0.239	.788(**)	.851(**)	-.558(*)	-0.398
46	URPOP01	-0.280	-0.315	-0.276	0.343	0.392	0.441	0.246	-.583(*)	0.118	-.620(*)	-0.255	.807(**)	.855(**)	-0.503	-0.371
47	URG81_91	0.361	0.421	0.433	0.323	0.266	0.374	0.256	-0.116	-0.075	-0.160	0.093	-0.073	-0.059	-0.143	0.004
48	URG91_01	-.605(*)	-.553(*)	-.626(*)	-0.322	-0.300	-0.334	-0.329	0.102	-0.173	0.047	-0.225	0.312	0.174	0.343	0.227
49	URLAR91	0.129	0.193	0.131	0.260	0.348	0.231	0.342	0.084	-0.109	-0.058	-0.267	0.327	0.423	-.526(*)	-0.400
50	URLAR01	-0.105	-0.052	-0.073	0.250	0.262	0.237	0.098	-0.349	-0.006	-0.471	-0.188	0.448	.548(*)	-0.496	-0.338
51	URSM91	-0.118	-0.107	-0.127	-0.315	-0.350	-0.306	-0.200	0.347	-0.077	0.471	0.142	-0.369	-0.514	.654(**)	.551(*)
52	URSM01	0.116	0.033	0.069	-0.067	-0.100	-0.006	0.094	0.264	-0.121	0.392	-0.033	-0.168	-0.240	0.328	0.204
53	URGSM91	-0.039	0.039	-0.025	-0.222	-0.225	-0.246	-0.233	0.257	-0.252	0.139	-0.111	-0.159	-0.160	0.147	0.279

54	URGLAR91	-0.211	-0.103	-0.140	0.014	-0.089	0.123	-0.049	-0.496	-0.065	-0.430	-0.019	0.224	0.168	0.060	-0.082
55	URGLAR01	-.721(**)	-.551(*)	-.698(**)	-0.491	-0.474	-.585(*)	-.526(*)	0.127	-0.217	0.092	-0.119	0.097	-0.078	.543(*)	0.382
56	URGII01	-.514(*)	-0.333	-0.472	-0.356	-0.325	-0.360	-0.343	0.064	-0.258	-0.070	-0.205	0.128	0.033	0.245	0.286
57	URGIII01	-.597(*)	-.527(*)	-.602(*)	-.598(*)	-.617(*)	-.639(*)	-.664(**)	0.285	-0.093	0.221	0.031	-0.111	-0.251	.616(*)	.632(*)
58	URGIV01	-.579(*)	-0.359	-0.509	-0.309	-0.321	-0.331	-0.399	-0.005	-0.168	-0.146	-0.123	0.210	0.074	0.240	0.315
59	URGV01	-0.082	0.013	-0.055	0.125	0.068	-0.007	-0.079	0.294	-0.425	0.102	-0.204	0.187	0.093	0.020	0.091
60	URGVI01	-0.165	0.084	-0.080	0.060	-0.103	0.085	-0.016	-0.245	-.719(**)	-0.303	-.584(*)	0.400	0.293	-0.092	-0.225

Continued.

sl.	Indicators	URPOP 91	URPOP 01	URG 81_91	URG 91_01	URLAR 91	URLAR 01	URSM 91	URSM 01	URGSM 91	URGLAR91	URGLAR01	URGII 01	URGIII 01	URGIV 01	URGV 01	URGVI 01
1	NFE R 93–4	0.216	0.186	0.176	-0.363	0.299	0.329	-0.442	-0.100	0.083	-0.130	-.551(*)	-0.291	-0.481	-0.451	0.047	0.110
2	NFE U 93–4	0.003	0.065	-.554(*)	.523(*)	0.458	0.035	0.082	0.235	0.215	-0.354	0.426	0.209	0.271	0.075	0.209	0.242
3	NFE R 99–00	-0.025	-0.035	0.291	-0.334	0.172	0.098	-0.213	0.087	0.097	-0.111	-.518(*)	-0.254	-0.436	-0.404	0.137	0.228
4	NFE U 99–00	0.264	0.224	-0.225	-0.089	.796(**)	0.452	-0.442	-0.103	0.233	-0.232	-0.246	-0.105	-0.247	-0.187	-0.017	0.286
5	WPR RM 15+ 93–4	0.204	0.161	-0.395	-0.105	-0.019	0.147	-0.135	-0.239	-0.111	-0.066	0.014	-0.164	0.083	-0.070	-.581(*)	-.535(*)
6	WPR UM 15+ 93–4	.666(**)	.718(**)	-0.183	0.304	0.061	0.339	-0.260	-0.040	-0.167	0.268	0.045	0.102	-0.022	0.066	-0.110	0.270
7	WPR RM 15+ 99	0.099	0.063	-0.418	-0.110	-0.004	0.064	-0.077	-0.210	-0.203	-0.103	0.062	-0.175	0.015	-0.100	-.629(*)	-.625(*)
8	WPR UM 15+ 99	.764(**)	.788(**)	-0.212	0.114	0.179	0.322	-0.264	-0.005	-0.343	0.045	-0.204	-0.242	-0.234	-0.063	-0.196	0.058
9	Unemp RM 93	-0.294	-0.295	0.405	-0.340	0.042	-0.208	0.086	0.229	-0.065	-0.069	-0.398	-0.287	-0.462	-0.318	0.166	0.168
10	Unemp RF 93	-0.270	-0.290	0.510	-0.430	-0.013	-0.200	0.122	0.206	-0.054	0.058	-0.442	-0.266	-0.464	-0.253	0.071	0.226
11	Unemp RP 93	-0.280	-0.299	0.470	-0.411	0.008	-0.189	0.082	0.190	-0.049	-0.019	-0.437	-0.283	-0.465	-0.287	0.136	0.192
12	Unemp UM 93	-0.430	-0.440	0.103	-0.371	0.100	-0.205	0.063	0.166	0.080	-0.465	-0.381	-0.349	-0.254	-0.451	0.136	-0.272
13	Unemp UF 93	-0.344	-0.343	0.178	-0.310	0.219	-0.197	0.095	0.268	0.038	-0.247	-0.368	-0.217	-0.381	-0.328	0.031	0.140
14	Unemp UP 93	-0.363	-0.380	0.222	-0.458	0.176	-0.165	0.018	0.181	0.038	-0.364	-0.502	-0.367	-0.423	-0.463	0.072	-0.108
15	Unemp RM 99	-0.128	-0.142	0.250	-0.438	0.138	-0.101	-0.170	0.134	-0.145	-0.220	-.619(*)	-0.469	-.614(*)	-0.491	0.097	0.112
16	Unemp RF 99	-0.161	-0.207	.561(*)	-.564(*)	0.032	-0.067	-0.031	0.078	-0.044	0.054	-.579(*)	-0.350	-.552(*)	-0.333	0.022	0.122
17	Unemp RP 99	-0.146	-0.187	0.452	-.545(*)	0.073	-0.060	-0.119	0.068	-0.072	-0.072	-.620(*)	-0.410	-.585(*)	-0.407	0.073	0.110
18	Unemp UM 99	-.571(*)	-.596(*)	0.074	-0.308	0.213	-0.204	0.102	0.161	0.248	-0.325	-0.242	-0.168	-0.123	-0.290	0.086	-0.027
19	Unemp UF 99	-0.313	-0.348	0.373	-0.445	0.204	-0.127	-0.003	0.129	0.036	-0.105	-0.462	-0.260	-0.463	-0.290	0.044	0.148
20	Unemp UP 99	-0.448	-0.492	0.308	-0.479	0.199	-0.153	0.013	0.115	0.133	-0.210	-0.448	-0.280	-0.371	-0.344	0.074	0.041
21	Daily Unemp RM 93	0.080	0.117	0.014	-0.251	0.307	0.100	-0.355	0.093	-0.159	-0.331	-.568(*)	-0.452	-.616(*)	-.676(**)	-0.061	-0.254
22	Daily Unemp RF 93	-0.038	-0.049	0.245	-.523(*)	0.288	0.050	-0.239	0.123	-0.090	-0.204	-.737(**)	-.524(*)	-.692(**)	-.643(**)	-0.186	-0.112
23	Daily Unemp RP 93	0.049	0.067	0.110	-0.364	0.296	0.103	-0.346	0.080	-0.135	-0.285	-.646(**)	-0.485	-.659(**)	-.681(**)	-0.094	-0.211
24	Daily Unemp UM 93	-0.111	-0.145	0.304	-.587(*)	0.176	0.131	-0.279	-0.063	0.038	-0.220	-.651(**)	-0.429	-.522(*)	-.617(*)	-0.067	-0.333
25	Daily Unemp UF 93	-0.215	-0.238	0.234	-0.471	0.311	-0.006	-0.119	0.121	0.059	-0.246	-.557(*)	-0.323	-0.511	-0.468	-0.053	0.012

26	Daily Unemp UP 93	-0.117	-0.151	0.322	-.601(*)	0.225	0.104	-0.259	-0.015	0.021	-0.218	-.689(**)	-0.437	-.582(*)	-.606(*)	-0.084	-0.232
27	Daily Unemp RM 99	0.139	0.107	0.138	-.556(*)	0.365	0.239	-0.494	-0.074	-0.039	-0.328	-.803(**)	-.559(*)	-.696(**)	-.713(**)	-0.171	-0.253
28	Daily Unemp RF 99	0.046	-0.014	0.190	-.625(*)	0.470	0.266	-0.402	-0.077	0.131	-0.313	-.756(**)	-0.453	-.608(*)	-.614(*)	-0.196	-0.182
29	Daily Unemp RP 99	0.115	0.071	0.180	-.596(*)	0.394	0.261	-0.478	-0.093	0.016	-0.308	-.801(**)	-.527(*)	-.678(**)	-.679(**)	-0.169	-0.223
30	Daily Unemp UM 99	-0.251	-0.280	0.361	-.605(*)	0.129	-0.105	-0.118	0.116	-0.039	-0.211	-.721(**)	-.514(*)	-.597(*)	-.579(*)	-0.082	-0.165
31	Daily Unemp UF 99	-0.260	-0.315	0.421	-.553(*)	0.193	-0.052	-0.107	0.033	0.039	-0.103	-.551(*)	-0.333	-.527(*)	-0.359	0.013	0.084
32	Daily Unemp UP 99	-0.233	-0.276	0.433	-.626(*)	0.131	-0.073	-0.127	0.069	-0.025	-0.140	-.698(**)	-0.472	-.602(*)	-0.509	-0.055	-0.080
33	Lit R 1991	0.366	0.343	0.323	-0.322	0.260	0.250	-0.315	-0.067	-0.222	0.014	-0.491	-0.356	-.598(*)	-0.309	0.125	0.060
34	Lit U 1991	0.410	0.392	0.266	-0.300	0.348	0.262	-0.350	-0.100	-0.225	-0.089	-0.474	-0.325	-.617(*)	-0.321	0.068	-0.103
35	Lit R 2001	0.449	0.441	0.374	-0.334	0.231	0.237	-0.306	-0.006	-0.246	0.123	-.585(*)	-0.360	-.639(*)	-0.331	-0.007	0.085
36	Lit U 2001	0.241	0.246	0.256	-0.329	0.342	0.098	-0.200	0.094	-0.233	-0.049	-.526(*)	-0.343	-.664(**)	-0.399	-0.079	-0.016
37	PR 93	-.611(*)	-.583(*)	-0.116	0.102	0.084	-0.349	0.347	0.264	0.257	-0.496	0.127	0.064	0.285	-0.005	0.294	-0.245
38	PU 93	0.123	0.118	-0.075	-0.173	-0.109	-0.006	-0.077	-0.121	-0.252	-0.065	-0.217	-0.258	-0.093	-0.168	-0.425	-.719(**)
39	PR 99	-.664(**)	-.620(*)	-0.160	0.047	-0.058	-0.471	0.471	0.392	0.139	-0.430	0.092	-0.070	0.221	-0.146	0.102	-0.303
40	PU 99	-0.239	-0.255	0.093	-0.225	-0.267	-0.188	0.142	-0.033	-0.111	-0.019	-0.119	-0.205	0.031	-0.123	-0.204	-.584(*)
41	PCI 93	.788(**)	.807(**)	-0.073	0.312	0.327	0.448	-0.369	-0.168	-0.159	0.224	0.097	0.128	-0.111	0.210	0.187	0.400
42	PCI 00	.851(**)	.855(**)	-0.059	0.174	0.423	.548(*)	-0.514	-0.240	-0.160	0.168	-0.078	0.033	-0.251	0.074	0.093	0.293
43	IMR 98–9	-.558(*)	-0.503	-0.143	0.343	-.526(*)	-0.496	.654(**)	0.328	0.147	0.060	.543(*)	0.245	.616(*)	0.240	0.020	-0.092
44	CMR 98–9	-0.398	-0.371	0.004	0.227	-0.400	-0.338	.551(*)	0.204	0.279	-0.082	0.382	0.286	.632(*)	0.315	0.091	-0.225
45	URPOP91	1.000	.972(**)	-0.194	0.026	.534(*)	.662(**)	-.650(**)	-0.383	-0.246	0.034	-0.223	-0.162	-0.343	-0.036	-0.220	-0.125
46	URPOP01	.972(**)	1.000	-0.290	0.194	0.485	.518(*)	-.526(*)	-0.177	-0.330	-0.036	-0.186	-0.164	-0.321	-0.078	-0.187	-0.116
47	URG81_91	-0.194	-0.290	1.000	-0.479	-0.273	0.091	0.173	-0.186	0.330	.669(**)	-0.125	0.159	-0.006	0.214	0.144	0.211
48	URG91_01	0.026	0.194	-0.479	1.000	-0.023	-0.296	0.395	0.480	-0.034	-0.202	.696(**)	0.461	.551(*)	0.402	.514(*)	0.296
49	URLAR91	.534(*)	0.485	-0.273	-0.023	1.000	.688(**)	-.623(*)	-0.320	0.292	-0.353	-0.215	0.028	-0.163	-0.071	-0.042	-0.056

50	URLAR01	.662(**)	.518(*)	0.091	-0.296	.688(**)	1.000	-.778(**)	-.780(**)	0.418	0.145	-0.128	0.144	-0.050	0.092	-0.084	-0.058
51	URSM91	-.650(**)	-.526(*)	0.173	0.395	-.623(*)	-.778(**)	1.000	.740(**)	-0.011	0.113	0.434	0.240	0.458	0.237	0.291	0.147
52	URSM01	-0.383	-0.177	-0.186	0.480	-0.320	-.780(**)	.740(**)	1.000	-0.281	-0.258	0.025	-0.135	0.045	-0.236	0.119	0.090
53	URGSM91	-0.246	-0.330	0.330	-0.034	0.292	0.418	-0.011	-0.281	1.000	0.056	0.276	.632(*)	.621(*)	0.384	0.423	0.270
54	URGLAR91	0.034	-0.036	.669(**)	-0.202	-0.353	0.145	0.113	-0.258	0.056	1.000	0.194	0.251	0.058	0.349	-0.124	0.342
55	URGLAR01	-0.223	-0.186	-0.125	.696(**)	-0.215	-0.128	0.434	0.025	0.276	0.194	1.000	.704(**)	.791(**)	.697(**)	.551(*)	0.303
56	URGII01	-0.162	-0.164	0.159	0.461	0.028	0.144	0.240	-0.135	.632(*)	0.251	.704(**)	1.000	.842(**)	.847(**)	.530(*)	.515(*)
57	URGIII01	-0.343	-0.321	-0.006	.551(*)	-0.163	-0.050	0.458	0.045	.621(*)	0.058	.791(**)	.842(**)	1.000	.745(**)	.597(*)	0.336
58	URGIV01	-0.036	-0.078	0.214	0.402	-0.071	0.092	0.237	-0.236	0.384	0.349	.697(**)	.847(**)	.745(**)	1.000	.531(*)	.545(*)
59	URGV01	-0.220	-0.187	0.144	.514(*)	-0.042	-0.084	0.291	0.119	0.423	-0.124	.551(*)	.530(*)	.597(*)	.531(*)	1.000	0.502
60	URGVI01	-0.125	-0.116	0.211	0.296	-0.056	-0.058	0.147	0.090	0.270	0.342	0.303	.515(*)	0.336	.545(*)	0.502	1.000

List of Indicators

NFE R	Percentage of workers outside agriculture in rural areas
NFE U	Percentage of workers outside agriculture in urban areas
WPR RM 15+	Male WPR in 15+ age group in rural areas
WPR UM 15+	Male WPR in 15+ age group in urban areas
Unemp RM	Unemployment rates by usual status for males in rural areas
Unemp RF	Unemployment rates by usual status for females in rural areas
Unemp RP	Unemployment rates by usual status for persons in rural areas
Unemp UM	Unemployment rates by usual status for males in urban areas
Unemp UF	Unemployment rates by usual status for females in urban areas
Unemp UP	Unemployment rates by usual status for persons in urban areas
Daily Unemp RM	Unemployment rates by daily status for males in rural areas
Daily Unemp RF	Unemployment rates by daily status for females in rural areas
Daily Unemp RP	Unemployment rates by daily status for persons in rural areas
Daily Unemp UM	Unemployment rates by daily status for males in urban areas
Daily Unemp UF	Unemployment rates by daily status for females in urban areas
Daily Unemp UP	Unemployment rates by daily status for persons in urban areas
Lit R	Literacy rates for rural areas
Lit U	Literacy rates for urban areas
PR	Poverty in rural areas
PU	Poverty in urban areas
PCI	Per capita state domestic product at current prices
IMR	Infant mortality rates
CMR	Child mortality rates
URPOP	Percent of urban population
URG	Growth of urban population
URLAR	Percentage share of large towns (class I) in total urban population
URSM	Percentage share of small towns (class IV–VI) in total urban population
URGSM	Growth of small towns
URGLAR	Growth of large towns (Class I)
URGII	Growth of class II towns
URGIII	Growth of class III towns
URGIV	Growth of class IV towns
URGV	Growth of class V towns
URGVI	Growth of class VI towns

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