

**FINAL REPORT ON THE MAJOR RESEARCH
PROJECT**

**EMPLOYMENT IN RURAL NON-FARM SECTOR IN
PUNJAB: THE DETERMINANTS PROBLEMS AND
PROSPECTS.**

(MRP-MAJOR-ECON-2013-17263)

**SUBMITTED TO
UNIVERSITY GRANTS COMMISSION, NEW DELHI
BY**

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**PUNJABI UNIVERSITY, PATIALA
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ANNEXURE -VIII

FINAL REPORT ON THE PROJECT

TITLE: EMPLOYMENT IN RURAL NON-FARM SECTOR IN PUNJAB: THE DETERMINANTS PROBLEMS AND PROSPECTS.

1.	Project Report No. 1st /2nd /3rd/Final	Final Report
2.	Period of Report	From 22-04-2016 to 30-6-2018
3.	UGC Reference No. & Date	UGC FILE NO. F. 5-55/2014 (HRP)
4.	Name of the Principal Investigator	Dr. Anupama
5.	Address	Office: Professor, Department of Economics, Punjabi University Patiala-147002 (Punjab)
6.	Department and University/College where the project has progressed	Department of Economics and Punjabi University Patiala-147002 (Punjab)
7.	Date of Implementation	22 April 2016
8.	Tenure of the project	3 Years From 01/07/2015 to 30/06/2018
9.	Grant Allocated	8,51,000/-
10.	Grants Received	1 st Installment: Rs. 4,98, 600/- in March, 2016 2 nd Installment: Rs. 2,54,400/- in May, 2018
11.	Final Expenditure	7,15,756/-
12.	Objectives of the Project	<p>The Present study mainly aims to examine the determinants Problems of the rural non-farm sector in Punjab. The specific objectives of the study are:</p> <ol style="list-style-type: none">1. To examine the structure of employment in the rural non-farm sector in Punjab.2. To look into the socio-economic conditions of households involved in rural non-farm activities in Punjab3. To analyze the characteristics of various non-farm activities being pursued by different categories of rural households in Punjab4. To analyze the correlates of rural non-farm activities i.e. whether the pull factors or the push/distress factors influence the extent of participation of a rural household in non-farm activities.5. To identify the determinants of income and

		<p>employment in rural non-farm activities i.e. role of socio-economic, demographic as well as infrastructure development and assets position etc. in generating income and employment in rural non-farm activities.</p> <p>6. To give the policy suggestions for growth of non-farm sector for generating decent employment opportunities and thus improving the living standards in rural areas.</p>
13.	Whether Objectives were achieved	All the objectives as stated above have been met by this study. This study has clearly pointed out the problems as well as the prospects of the rural non-farm sector in the state.
14.	Achievements from the Project	The project is an addition to the existing pool of knowledge about the rural workers in the state. It provides an ample evidence about the living as well as working conditions of the rural workers in the non-farm sector. This information will be helpful to the policy makers to frame a suitable policy aiming at the improvement of quality of employment in the rural non-farm sector.
15.	Has the progress been according to the original plan of work and towards achieving objectives if not, state reasons.	Yes, the progress of the project is as per plans.
16.	Please indicate the difficulties, if any, experienced in implementing the project.	_____
17.	If the project has not been completed please indicate the approximate time by which it is likely to be completed. A summary of the work done for the work done for the period (Annual Basis) may please be sent to the commission on a separate sheet.	Not Applicable, as the project has been completed.

<p>18.</p>	<p>If the project has been completed please enclose a Summary of the findings of the study</p>	<p>Summary of the Findings:</p> <p>From secondary data, it has been found that in Punjab, a vast majority of population still earns its living from agriculture. Moreover, the non-farm sector of the state is dominated by tiny and own account units which though offer the escape from the poverty but lack the inner dynamism required for the rural economy to take off as a non-farm economy. Hence, in this study, an attempt has been made to examine the general trends of the employment structure in the state. It has been observed that although, for the state as a whole, the share of primary sector in total employment has come down from about 64 per cent in 1983 to about 36 per cent in 2011-12 but in rural areas still 52.37 per cent of the workers are employed in the primary sector (at usual principal and subsidiary status). However, there are trends that people are shifting to non-farm sector as there is little potential in agricultural sector to generate additional employment opportunities. Within the non-farm sector, the services, followed by the non-manufacturing sector have emerged as the largest employment providers in the rural areas. However, more of the males are getting jobs in the non-manufacturing sector than the services while in case of females, the services are the major employment providers. Looking at the quality of jobs with in the non-farm sector, it has been observed that most of the regular jobs are being created in manufacturing and services and the non-manufacturing sector is mainly creating the casual employment opportunities. It has also been found that the non-farm employment in rural areas is mainly concentrated to four sectors viz. Construction, Trade, Transport and Communications and Wearing Apparels which provide employment to about 60 per cent of total workers employed in the non-farm sector. Out of these, in terms of employment, the Construction sector appears to be a booming one while trading is contracting, transport and communications are growing at a slower rate than average increase in total non-farm employment and the Wearing</p>
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Apparels registered a relatively faster change. Further, it has also been found that most of the enterprises are small scale family units which are hardly in a position to work on profitable lines by enjoying the economies of scale. Between 2010-11 and 2015-16, the share of own account family enterprises has increased while that of the establishments has declined. This has also led to fall in average number of workers employed per enterprise. This has happened not due to increase in capital intensity of the units but due to their downsizing.

The socio-economic analysis of a sample of 659 non-farm households and 1124 non-farm workers shows that the majority of the sampled workers belongs to the Sikh religion. It has been found that Sikh religion forms 64.03 per cent, while the Hindu religion is found to be comprising only 32.77 per cent of the sampled non-farm households. As many as 78.57 per cent and 62.29 per cent of the sampled non-farm households in Bathinda and Gurdaspur districts, respectively belong to the Sikh community. In Jalandhar district the proportion of the households belonging to Sikh religion is 50.84. The Scheduled Caste category constitutes 45.67 per cent of the sample whereas 21.39 per cent households belong to the Backward Classes and 32.92 per cent households belong to the 'Others' caste category. Further, the caste-wise distribution shows that as many as 60.50 per cent and 39.34 per cent sampled farm households belong to the Scheduled Caste category in Jalandhar and Gurdaspur, respectively whereas only 35.71 per cent sampled non-farm households belong to this category in Bathinda district. The Bathinda district has a greater tendency towards having a joint family, while in Gurdaspur and Jalandhar, the sampled non-farm households mainly have nuclear families.

Further, the living conditions of the non-farm households show that about 72 per cent of total sampled households are living in *pucca* houses and 24.58 per cent sampled households

are residing in *semi-pucca* houses. As far as the housing conditions are concerned, it has been found that 63.58 per cent sampled households own the houses of good condition; 25.64 per cent own houses of average condition and 10.77 per cent own dilapidated houses. The living conditions of the sampled non-farm households are poor in Gurdaspur district as compared to the other districts. It has also been found that the main source of drinking water for sampled households is tap.

The sex ratio for the average sampled farm households is 854 females for every 1000 males. The education profile of the non-farm households shows that as many as 18.12 per cent of rural non-farm sampled population is illiterate. The proportion of illiterates among non-farm household members is higher in Bathinda district. Only 4.47 and 1.98 per cent non-farm sampled persons are graduates and post-graduates, respectively and only 2.96 per cent non-farm sampled persons are having any professional and technical degrees. The sampled non-farm population in Jalandhar district is more educated as compared to the other districts.

About 82 per cent of the total non-farm workers are males and remaining 18.24 per cent are females. It has been found that the proportion of earners is the highest in Gurdaspur district and the lowest in Bathinda district. About 82 per cent of total households are landless and only 2.56 per cent of total households own land more than five acres.

The analysis clearly indicates that living conditions of non-farm households are very poor in rural Punjab. The condition of non-farm households is the worst in Bathinda district due to deepening agrarian crisis in south-west region and absence of alternative employment opportunities for rural masses in this district.

As far as nature of employment in the rural non-farm sector of Punjab is concerned, it has been found that out of

total 1124 workers, 36.20 per cent are self employed in various activities, another 35.14 per cent are employed in regular jobs, out of which 23.40 per cent are employed in private sector while 11.74 per cent are employed in the government sector and 28.65 per cent are employed as casual workers. However, this distribution of the workers according to their employment status is not uniform across the regions. The Gurdaspur district has the maximum rural non-farm employment in casual labour. But in Jalandhar district, maximum employment of rural non-farm workers is in services which is largely from private sector while in Bathinda, maximum workers are self employed. It has been found that the share of casual labour in total employment is the highest in Gurdaspur district, followed by Bathinda and Jalandhar. Employment in services is more in Jalandhar than Bathinda and Gurdaspur. Self employment is the highest in Bathinda, followed by Jalandhar and Gurdaspur. It means quality of employment improves when one moves from less developed to more developed region because Jalandhar district is highly developed, Bathinda district is moderately developed and Gurdaspur is the least developed in terms of economic and social factors. Gender wise composition of non-farm workers of Punjab reveals that participation of females is more than males in service sector in all the three districts. In Jalandhar district and Bathinda district, participation of males is more than females as self employed ones whereas in Gurdaspur district more females are self employed than the males. Participation of males as a casual labourer is more than the females in Gurdaspur and Jalandhar district, whereas it is less than the females in Bathinda district.

Study found that most of the non-farm workers of Punjab lie in the age group 30-45 years in all the three districts, followed by 14-30 years age group. The educational level of non-farm workers of Punjab reveals that in Gurdaspur district, maximum workers are educated upto matric level. In Jalandhar district, majority of the workers are educated up to

the middle level, whereas most of the workers are illiterate in Bathinda district.

Regarding the profile of non-farm enterprises in Punjab, it has been found that most of the rural non-farm enterprises in Punjab are engaged in retail trading, followed by manufacturing. Study found that the most important work under the category of manufacturing is that of tailoring. Cement and building material shops and white washing/paint work teams/flex making work occupied an important place among all construction/building materials related enterprises. Of all the miscellaneous activities, auto rickshaw operators/ other light commercial vehicles occupy an important place in the sampled villages. Furthermore, it has been found that the mean age of owners/operators of all non-farm enterprises is 40 years. There has been a very small participation of females in the rural non-farm enterprises. Majority of the operators of rural non-farm enterprises are literate. Very small proportion of rural non-farm enterprises is registered. Participation of females in repair works/workshops of various types and construction/building work is conspicuous by its absence. Maximum participation of females has been found in manufacturing. Regarding employment pattern of different non-farm enterprises, study found that in case of cottage industries and craft, family participation is more than the hired workers. However, participation of hired workers is more than the family workers in case of other miscellaneous type activities.

It has been found that in most of the rural non-farm enterprises, the work is mainly done by the unpaid family workers. Most of the self-employed units are mainly operated by the family members. The proportion of the unpaid family members is the highest in case of retail trading. Even the manufacturing and craft units in rural areas of Punjab are found to be operating with help of the family members. The sub-sectors of construction and building materials, catering,

sound services, commission agents, private schools, clinics etc., have been found to be having maximum proportion of the hired workers out of total workers employed in these units.

Further, it has been found that most of the rural non-farm enterprises are run with very low level of capital. The highest level of investment per enterprise has been registered by the enterprises related to construction works and building materials, followed by retail trading. This is confirmed by the fact that a big majority of them has responded that lack of capital is their main problem. Therefore, they emphasise upon the need of provision of adequate capital at lower rate of interest. Some of the enterprises also face the problem of competition from large units and irregularity of work.

Distribution of the workers according to the employment status has been found to be varying according to the type of activity which dominates in the rural areas. The areas where the service sector dominates in total non-farm employment, the proportion of the regular workers is higher while in case of dominance of retail trading as well as manufacturing, the share of self-employed workers is higher and in the areas where construction sector dominates, greater proportion of the workers can be found in casual jobs. The employment status also determines the location of the work place. It has been found that most of the self-employed activities are located within the village but those with higher amount of capital invested have to move outside the village to work on profitable basis or at least ensure some decent level of returns. A greater proportion of the regular workers go out of village to earn their living and the casual workers are found to be working within as well as outside the village. For those who work outside the village, most of the self employed workers work close to village while many of the regular as well as casual workers go to work up to 10 kilometers and it has also been found that most of the rural non-farm employment

		<p>opportunities in the industrially advanced district i.e. district Jalandhar are provided within the village or just near to it (up to 5 kilometers only) while in the other districts the workers have to go to work even beyond that. Moreover, district Jalandhar provides more of the full-time employment opportunities and other districts have a considerable proportion of the workers being underemployed. This indicates that the level of industrialisation in an area largely affects the quality of rural non-farm jobs. It has also been found that the major problems of the hired workers are irregularity of work and low wages. They also responded that there is a need that their work should be regularised, new employment opportunities in the rural areas should be created and the government should give the financial support to the rural workers to start own business and the proportion of those who demand it, is higher for the casual workers and the regular workers in the private sector than those in regular jobs in the government sector.</p> <p>The type of activity, nature of employment as well as the geographic location of the non-farm enterprises greatly influence the average level of the income of their workers. It has been found that the regular workers are earning the highest amount from their non-farm activities while it is the lowest in case of the casual workers. The earnings of the casual workers have been found to be much below the stipulated minimum wages for the unskilled workers. Though, the non-farm workers in rural areas of Jalandhar district have recorded the highest level of income while this is the lowest for district Bathinda but we can find noticeable variations in this pattern for different types of employment. The regular jobs in the government sector have been paying their workers the highest amount in district Gurdaspur but in case of their counterparts in private jobs the best paid location is district Jalandhar, for casual workers and the self-employed workers, it is district Gurdaspur and Jalandhar, respectively while the self-employed workers, casual workers, regular workers in the</p>
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		<p>government sector and the private sector earn the lowest amount in districts Gurdaspur, Bathinda, Jalandhar and Gurdaspur, respectively.</p> <p>The activity-wise details of the casual, self-employed and the regular workers show that the highest earnings for the casual jobs can be found in Professional and Technical Activities, while in case of self-employed workers, the activities of construction/building materials, Joint enterprises and the other activities are the most lucrative ones. In case of regular workers, the highest paid activities are Public Administration, Defence etc. and Education but there are wide variations in the average earnings of the regular workers in the government sector and the private sector. The average earnings of the regular workers in the government sector are much higher than those working in the private sector in each activity and these differences increase as the average level of income in the government sector increases.</p> <p>Our study has also shown noticeable gender differences in income of the sampled non-farm workers in rural Punjab. These differences are the highest in case of casual workers and the lowest in case of regular workers in government sector. In casual employment the sampled female workers are earning just 36.02 per cent of the male earnings while in case of regular workers in government sector, this proportion is 68.54 per cent. Even in case of self-employed workers, the females are receiving less than half (41.23 per cent) of male earnings. We have seen that regular employment (especially in government sector) is relatively less discriminatory than other types of employment but we know that these differences vary according to the type of activity. In case of casual employment, the differences are very low in professional, scientific and technical activities and in manufacturing sector and very high in the construction sector. In case of self-employed workers, the women are found to be participating in only three types of activities among which, the joint</p>
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enterprises have shown the widest gap as the women in these enterprises are earning merely 19.77 per cent of the male earnings. Among all self-employed activities, manufacturing has shown the narrowest gap, though it is very large in itself as females are getting about 47 per cent of male earnings in this sector. Finally, in case of regular workers, we can see that the sectors of finance and insurance and public administration etc. are paying more to their female workers than the males as the ratio of male to female earnings in these sectors has been found to be 162.70 per cent and 119.65 per cent, respectively. On the other hand, in professional and technical services, these differences are the widest. Actually, the sectors where the females are earning close to the males or are earning more than them, has been due to their participation in the government sector while their participation in the private sector pushes the overall female earnings in the downward direction. But we also have an exception of the sector of human health and social work activities in which the females in the private sector are earning more than the males (with female to male earning ratio at 130.64 per cent) while in the government sector, though their wages are higher than their counterparts in the private sector but in the government sector, they are earning merely 19.38 per cent of the male earnings. This has been due to participation of the females in this sector as Accredited Social Health Activists (ASHAs) who are working at very low wages and have inadequate and faulty commission system. But in rest of the cases, we can clearly say that while the government sector reduces the gender based inequalities, the private sector tends to aggravate them.

The source-wise analysis of the rural non-farm income shows that the per household annual income is dominated by the non-farm income, followed by income from agriculture, pension, other incomes comprising of interest, rent and milk production, and remittances. Among all the districts, the average level of income from non-farm activities is the

highest in Jalandhar district (Rs. 2,57,269.35) while that of the income from agriculture is the highest in Bathinda district (Rs. 26,874.37). Interestingly, the remittances are the highest in district Jalandhar as this region is known for international emigrants in almost every other household. On the other hand, the income from Pensions has been found to be the highest in district Gurdaspur.

It has also been found that as the level of education increases, the average level of earnings in the rural non-farm sector increases. Though, at lower level of education, the regular workers in the government sector earn lower amount than those in self-employment but for education level above middle, the earnings of the former become higher than that of the latter, though this difference declines as the level of education increases. There are marginal differences in the earnings from self-employment and regular employment in the government sector for the workers with Graduation and higher level of education.

Further, examining the impact of land ownership upon the per household as well as per worker earnings, this study has found a positive relationship between the two but as we disaggregate the impact of land on per worker earnings by nature of employment, we find interesting results. ownership status of land has a clear positive association with income of the regular workers in the government sector only. For rest of the workers, it does not seem to affect the income level as indicated by the overall average incomes e.g. in case of casual workers, the ownership of land has increased the average level of income only for the workers owning land 0-2.5 acres while for rest of the categories, the income falls as size of land ownership increases. It has been found that the average income of the landless casual workers is Rs. 64,773.43 while for those owning land between 2.5-5 acres and 5-15 acres, it falls to Rs. 60,000.00 and Rs 45,000.00, respectively. In case of self-employed workers and regular workers in the private

sector, we have found a U-type relationship of average income with land ownership. In case of the self-employment category, the average income of the landless workers is Rs. 169890.50 which declined to Rs. 148692.85 and Rs. 1,17,776.19 for the workers owning land up to 2.5 acres and between 2.5-5 acres, respectively; it further increases to Rs. 1,75,555.56 and Rs. 22,000,00.00 for those owning land between 5-15 acres and more than 15 acres, respectively. Similarly, in case of regular workers in the private sector, those who are landless, are earning Rs. 80,192.39 which falls to Rs. 71,905.26 for the workers with land ownership up to 2.5 acres but increases to about Rs. 83,000 for those who own land between 2.5-5 acres and 5-15 acres. Thus, we have seen a positive impact of land ownership on average earnings of the regular workers in the government sector. This may have been due to the fact that the government sector mainly employs the workers with higher qualifications in high paid jobs and since a household with greater size of land holding can invest more in higher education of its members which may lead to their entry in more gainful employment opportunities, therefore, we get a positive association of the land ownership with per worker earnings under this category of workers.

We have also observed wide inequalities in distribution of income among the non-farm households in the rural areas of Punjab. As measured by the Gini coefficients, the income inequalities among the sampled households have been found to be the highest in district Gurdaspur and the lowest in district Jalandhar. The value of Gini coefficient for all the sampled households is 0.46 while in district Gurdaspur, it has been found to be 0.51, as compared to 0.45 in district Bathinda and 0.41 in district Jalandhar.

The regression analysis indicates that the regular employment, level of education and ownership of land have a significant positive influence upon the non-farm income. An

enterprise located in district Jalandhar also has a higher level of income as compared to district Bathinda. Caste and gender were not found to have a significant impact on non-farm income in rural areas. Interestingly, the younger workers in the non-farm activity have been found to be earning more than their older counterparts.

As far as the consumption expenditure of the rural non-farm households is concerned, it has been found that these households spend the maximum amount on food-items, followed by non-food items and socio-religious ceremonies in all the three districts. The consumption expenditure is slightly higher in Jalandhar and Bathinda district than Gurdaspur. The consumption pattern of different categories of non-farm households is of subsistence in nature. A large share of total consumption expenditure by these categories is allocated to food items distinctly followed by non-food items and socio-religious ceremonies in all the three districts. The inequalities in per household as well as per capita consumption expenditure in Gurdaspur district are higher than the Jalandhar and Bathinda districts. Further, it has been found that although, the average propensity to consume for all sampled rural non-farm households is less than one but there are wide variations by the size of land owned, nature of employment as well as income deciles. It has been found that the households in lowest four decile classes of income consume more than their average income and hence are more likely to fall in the debt trap to make both the ends meet.

The per capita consumption expenditure is closely linked with the asset base of households. Since the family size varies from one category to the other, there are some differences in the range of per capita and per household consumption expenditure. The per capita consumption expenditure of the medium land holding households is 2.11 times of the per capita consumption expenditure of the landless households and per household consumption expenditure of the medium

land holding households is 2.35 times of the per household consumption expenditure of landless households.

The consumption expenditure by nature of employment shows that the regular workers employed in the government sector spend the highest amount on consumption than other type of workers. The per capita consumption expenditure of the regular workers in the government sector has been found to be 2.35 times higher than the casual workers, 1.57 times higher than the self-employed workers and even 1.87 times higher than the regular workers in the private sector. The casual workers have been found to be spending dismally lower proportion of their total consumption expenditure on education as about 74 per cent of their total consumption expenditure is spent on food items only. Thus, we have observed considerable variations in the level and pattern of consumption expenditure among different types of workers in the non-farm sector. It has also been observed that the intra-group inequalities in per capita consumption expenditure are the highest in case of the regular workers while the casual workers seem to be sharing their deprivations more equally. Thus, there is ample evidence of shared deprivation than the shared prosperity among the rural non-farm segment of the state.

The study has also found the extent of poverty among the non-farm workers in rural Punjab. It has been found that the proportion of poor among the rural non-farm workers of Punjab is much higher than the state average (8.3 per cent according to 2011-12 poverty estimates). The study shows that 19 per cent of the sampled non-farm workers live below poverty line out of which 5.27 per cent are extremely poor. Another 16.61 per cent are marginally poor and 36.88 per cent are vulnerable. The district-wise analysis shows that the the proportion of the extremely poor non-farm workers is the highest in district Gurdaspur (7.46 per cent) and the lowest in district Jalandhar (2.90 per cent). District Gurdaspur also has

the highest proportion of the marginally poor workers. We have noticed that the poor in this sector are stratified along caste, type of activity, employment status, accumulation of human and physical assets etc. The incidence of poverty and vulnerability is higher for the non-farm workers belonging to socially marginalised sections and for those working in casual jobs, brick kilns, construction, manufacturing etc. The non-farm workers with lower educational attainments and no or inadequate land ownership find it hard to come out of poverty and a greater proportion of them remain vulnerable to poverty as compared to the workers with higher level of education and ownership of land above 2.5 acres. The results of the regression analysis also show that as compared to casual employment, being in self-employment or in regular jobs (both in government and private sector) in rural non-farm sector, reduces the probability of being poor. Similarly, as compared to the Scheduled Castes, where the incidence of poverty is very high, belonging to other social groups such as general category (or 'other' caste categories) and OBCs reduces the chances of a non-farm worker in rural areas to fall below the poverty line. Though, the ownership of land does not exhibit any significant impact upon the probability of being poor, yet the level of education reduces it. On the other hand, an increase in household size increases the probability of being poor.

An examination of debt and assets of the sampled households suggests that the major items of the assets owned are the agricultural land and dwelling house while relatively very low value has been recorded in case of household durables and the livestock. The average value of the assets owned by the rural non-farm workers has been found to be the highest in district Bathinda (Rs. 20,81,982.98), followed by district Gurdaspur (Rs. 15,08,602.63) while it is the lowest in Jalandhar (Rs. 13,76,863.52), even though this district has shown the highest level of income of the sampled non-farm households. This is actually due to the lesser ownership of

		<p>agricultural land in this district as compared to the other districts while the average value of most of the other assets is higher in this district than their counterparts in other two sampled districts. In district Jalandhar, the average value of the dwelling house (Rs. 8,53,270.04) is greater than that of the agricultural land (Rs. 2,78,481.01) owned by the sampled households in this district. In other two sampled districts, the average value of assets is higher for agricultural land than the dwelling house. The table shows that in district Gurdaspur and Bathinda, the average value of land owned by the sampled households is Rs. 6,73,913.04 and Rs. 11,90,525.21, respectively while in case of dwelling house, it is Rs. 6,46,358.69 and Rs. 7,06,050.42. The average value of household durables is the highest for district Jalandhar (Rs. 1,93,327.66), followed by district Gurdaspur (Rs. 1,64,564.6) and then by district Bathinda (Rs. 1,62,758.2). The same order can be observed in case of value of the livestock i.e. its highest value has been found in district Jalandhar (Rs. 51,784.81), followed by district Gurdaspur (Rs. 23,766.3) and then by district Bathinda (Rs. 22,649.15). In percentage terms as well, we can find the similar pattern and the district-wise analysis shows that that the dwelling house is the biggest asset of the sampled rural non-farm households in district Jalandhar while in other two sampled districts, for the sampled non-farm households, the biggest asset is agricultural land. Further, the value of assets by nature of employment of the sampled rural non-farm workers shows that the average value of the assets is the highest for the regular salaried workers in the government sector (Rs. 7,99,177.16), followed by the self-employed workers (Rs. 4,10,782.34) and then by the regular salaried workers in the private sector (Rs. 2,15,299.81) while the value of the assets owned by the casual workers is the lowest (Rs. 1,25,257.58). This order is followed for almost each type of the assets owned by the sampled workers. However, in percentage terms, we have found that while the share of agricultural land is the lowest for</p>
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the casual workers, the share of the dwelling house is the largest for this category of workers among all types of workers. The share of dwelling house out of total assets owned by the sampled workers is 60.37 per cent for the casual workers as compared to 45.13 per cent, 38.80 per cent and 52.20 per cent for the self-employed workers, regular salaried workers in the government sector and private sector, respectively. On the other hand, the share of agricultural land out of total assets owned is 43.53 per cent, 24.23 per cent, 47.32 per cent and 33.41 per cent, respectively for the self-employed workers, casual workers, regular salaried workers in the government sector and the private sector. Thus, we have seen that the major share of the total assets owned by the sampled non-farm workers is constituted by the agricultural land and the dwelling house while the household durables and the livestock have a relatively very small share in the total assets owned by these households. Thus, we have seen that the value of assets is highly unequal among the non-farm households in rural Punjab. This has been further confirmed by a very high Gini ratio observed in case of distribution of assets (0.62) in terms of per household as well as per capita values. Among all the sampled districts these inequalities are the highest in district Bathinda (value of Gini coefficient being 0.66), followed by district Gurdaspur (0.64) and district Jalandhar (0.52). The distribution of assets by nature of employment shows that this distribution is the most unequal among the self-employed workers (value of Gini coefficient is 0.58) while it is the lowest for the regular workers in the government sector (0.50).

An analysis of the indebtedness among the sampled non-farm households, shows that 34.14 per cent households are indebted. The incidence of indebtedness is the highest in district Bathinda (43.28 per cent) and the lowest in district Gurdaspur (19.67 per cent). The average amount of debt has been found to be Rs. 1,47,646.22 per indebted household. The average amount of debt is the highest in district Gurdaspur

(Rs. 1, 79,722.22) and the lowest in district Jalandhar (Rs. 1, 18,880.30). Further, it has been found that more of the loans are taken for unproductive purposes than the productive ones. The ratio of productive to unproductive loans for the sampled rural non-farm workers has been found to be 0.50. Out of the productive loans, a higher amount is availed for non-farm business (Rs. 41,728.00) than for agriculture (Rs. 7,333.33) while only Rs. 422.22 have been borrowed for purchase of livestock. Under the category of unproductive loans, it has been found that the main purposes of loan are domestic needs, construction of house and major repairs, marriages and social ceremonies and health.

In the district-wise analysis of indebtedness among the sampled households, it has been found that the sampled households in district Gurdaspur have the highest amount of debt (Rs. 1,79,722.22), followed by district Bathinda (Rs. 1,60,453.30) while the sampled households in district Jalandhar have registered the lowest amount of debt per indebted household (Rs. 1,18,880.35). In each of the district, the amount of loan for productive purposes is lower than that of the unproductive purposes. It has been found that Rs. 58,791.67, Rs. 27,862.33 and Rs. 64,295.63 were taken for productive purposes and Rs. 1,20,930.56, Rs. 91,028.03 and Rs. 96,157.67 were taken for unproductive purposes in district Gurdaspur, Jalandhar and Bathinda, respectively. As a result, the ratio of productive to unproductive loans in these districts has been found to be 0.49, 0.31 and 0.67.

The source-wise distribution of household debt shows that a greater proportion of it is taken from institutional sources. The study shows that 55.64 per cent of the total household debt is raised from the institutional agencies while rest of the 44.36 per cent is taken from the non-institutional agencies. Out of the institutional agencies, the share of the commercial banks is 47.02 per cent. The share of the institutional sources is the highest in district Gurdaspur and

the lowest in district Bathinda. It has been found that out of the total debt of the sampled non-farm households 64.53 per cent, 35.66 per cent and 47.19 per cent has been taken from the commercial banks in districts Gurdaspur, Jalandhar and Bathinda, respectively. Under the broader category of non-institutional sources, we can see that the highest proportion of the total debt of the sampled non-farm households has been taken from the relatives and friends, followed by money lenders and the large farmers. The source and purpose of debt together determine the distribution of debt according to rate of interest. If the loan is raised for non-productive purpose and from the non-institutional source, there will be a greater probability of its having a higher rate of interest than the ones taken for productive purposes and from the institutional agencies. It has been found that the highest proportion of total household debt is taken at the interest rates ranging between 1-7 per cent, 47.52 per cent of total household debt is raised on this range. The next important categories are 8-14 per cent and 0 per cent; 29.75 per cent and 13.61 per cent of total household debt has been found to be raised on these two interest categories, respectively. Thus, we have seen that leaving the zero-interest rate category aside, the proportion of loan under each category falls as the rate of interest increases. The study shows that about 90 per cent of the total loan taken by the sampled households is raised at an interest rate below 14 per cent.

An examination of indebtedness among different categories of the workers shows that 35.05 per cent of the sampled workers are in debt and the incidence of indebtedness is the highest among the casual workers (40.68 per cent) and the lowest among the regular workers in the government sector (25 per cent) while 33.16 per cent of the self-employed workers and 36.13 per cent of the regular salaried workers in the private sector have also been found to be in debt. The table further shows that the average amount of debt per sampled worker has been found to be Rs.

1,30,443.07. This amount is the highest for the regular workers and the lowest for the casual workers. Out of total debt 28.33 per cent is taken for productive purposes and 71.66 per cent for the non-productive purposes. However, if we go by each of purposes under these two broader categories, we can notice that the highest proportion of the debt is taken for non-farm business, followed by the domestic needs. Within the productive purposes, the highest proportion of debt for agriculture has been registered in case of the regular salaried workers in the government sector (16.71 per cent) while in case of the debt for non-farm business, the highest proportion is recorded in case of the self-employed workers (45.21 per cent). Similarly, among the major items of non-productive purposes, it has been found that among all the categories of the workers, the casual workers have registered the highest proportion of debt for marriages and social ceremonies (20.15 per cent), healthcare (24.21 per cent) and education (11.45 per cent) while in case of debt for domestic needs and purchase of durable goods, the highest proportions have been recorded in case of regular salaried workers in the government sector.

An analysis of the sources of debt across different categories of the workers shows that the share of institutional agencies in total debt of the sampled workers is 47.19 per cent and that of the non-institutional sources is 52.81 per cent. The category-wise examination of the source of the debt shows that the regular salaried workers in the government sector has been able to raise the highest share of their debt from the institutional sources which is 68.83 per cent as compared to 49.67 per cent for the self-employed workers, 41.47 per cent for the regular salaried workers in the private sector and only 29.42 per cent for the casual workers. Within the institutional sources, we can observe that the highest share is that of the commercial banks. In the category of the non-institutional sources, we can observe that 26.64 per cent of the total debt of the sampled non-farm workers has been taken from the relatives and friends, followed by money lenders and the large

		<p>farmers. The share of debt from the money lenders is considerably higher for the regular salaried workers in the government sector (18.53 per cent) and the private sector (18.93 per cent) than the self-employed workers (12.31 per cent) and the casual workers (4.61 per cent) while in case of the debt from the large farmers, a greater share has been noticed for the casual workers (30.58 per cent) than the other categories of the workers. As far as the distribution of debt according to the rate of interest is concerned, it has been found that the largest proportion of debt is raised at an interest rate ranging between 1-7 per cent. About half (49.99 per cent) of the total debt of the sampled workers is raised at this interest category. Another 22 per cent of the total debt has been taken at the rate of interest ranging between 8-14 per cent. In case of the casual workers, we can find that 45.50 per cent of their total debt has been raised at rate of interest ranging between 1-7 per cent and this proportion declines to 16.54 per cent for the next interest category i.e. 8-14 per cent. In case of the regular salaried workers in the government sector, a bigger proportion i.e. 42.61 per cent is raised on rate of interest 8-14 per cent. It is due to the fact that this category of the workers takes about 80 per cent of its loans for non-productive purposes.</p> <p>Finally, an examination of the debt-asset ratio shows that although, it is very low for all the sampled households (0.10 only) but it is very high for the bottom asset holding class. The workers in the lowest decile class of the asset ownership in district Gurdaspur and those working as casual workers and regular salaried workers in the private sector have been found to be severely indebted as their debt-asset ratio is greater than one which indicates that they will not be able to repay their debt even after selling all of their assets.</p>
	Any Other Information.	The present study will be helpful to the academicians, researchers, policy makers and the social activists/organizations to understand the problems and the

		<p>prospects of the rural non-farm sector. It clearly shows the activities, type of workers as well as the areas where the rural non farm sector is performing well. Through the analysis of determinants of income and the magnitude of the poverty among the non farm workers, this study suggests some ways to create the decent employment opportunities in the rural areas to make the good policy decisions. The policy makers need firm information about the rural non farm sector. This study provides extensive information to the policy makers regarding the non farm sector in the rural areas of the state.</p>
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ANNEXURE - IX

INFORMATION ON THE MAJOR RESEARCH PROJECT

TITLE: EMPLOYMENT IN RURAL NON-FARM SECTOR IN PUNJAB: THE DETERMINANTS PROBLEMS AND PROSPECTS

Title of the Project	Employment in Rural Non-Farm Sector in Punjab: The Determinants Problems and Prospects
UGC Reference No. & Date	UGC FILE NO. F. 5-55/2014 (HRP)
Name of the Principal Investigator	Dr. Anupama
Address	Office: Professor, Department of Economics, Punjabi University Patiala-147002 (Punjab)
Department and University/College where the project has undertaken	Department of Economics and Punjabi University Patiala-147002 (Punjab)
Date of Implementation	22 April 2016
Tenure of the project	3 Years From 01/07/2015 to 30/06/2018
Grant Allocated	8,51,000/-
Grants Received	1 st Installment: Rs. 4,98, 600/- in March, 2016 2 nd Installment: Rs. 2,54,400/- in May, 2018
Final Expenditure	7,15,756/-
Title of the Project	Employment in Rural Non-Farm Sector in Punjab: The Determinants Problems and Prospects
Objectives of the Project	<p>The Present study mainly aims to examine the determinants Problems of the rural non-farm sector in Punjab. The specific objectives of the study are:</p> <ol style="list-style-type: none">1. To examine the structure of employment in the rural non-farm sector in Punjab.2. To look into the socio-economic conditions of households involved in rural non-farm activities in Punjab3. To analyze the characteristics of various non-farm activities being pursued by different categories of rural households in Punjab4. To analyze the correlates of rural non-farm activities i.e. whether the pull factors or the push/distress factors influence the extent of participation of a rural household in non-farm activities.5. To identify the determinants of income and

	<p>employment in rural non-farm activities i.e. role of socio-economic, demographic as well as infrastructure development and assets position etc. in generating income and employment in rural non-farm activities.</p> <p>6. To give the policy suggestions for growth of non-farm sector for generating decent employment opportunities and thus improving the living standards in rural areas.</p>
Whether Objectives were achieved	All the objectives as stated above have been met by this study. This study has clearly pointed out the problems as well as the prospects of the rural non-farm sector in the state.
Achievements from the Project	The project is an addition to the existing pool of knowledge about the rural workers in the state. It provides an ample evidence about the living as well as working conditions of the rural workers in the non-farm sector. This information will be helpful to the policy makers to frame a suitable policy aiming at the improvement of quality of employment in the rural non-farm sector.
Summary of the findings (In 500 words)	<p>SUMMARY</p> <p>Rural non-farm sector is being considered as an important source of employment generation in the state of Punjab which is ailing from stagnation in agricultural sector. But the rural non-farm sector of the state is dominated by tiny, own account enterprises which provide low paid and insecure jobs. But some activities, especially the services, provide good quality jobs but they have too many entry barriers like lack of education, skills, assets etc. Hence, present study tries to identify the determinants, problems as well as prospects of the rural non-farm sector of the state. By taking a sample of 659 rural non-farm households and 1124 non-farm workers, the information about their socio-economic conditions, consumption, level of income, debt, assets</p>

etc. was collected. The study found that, 36.20 per cent of the sampled non-farm workers are self employed, 35.14 per cent are employed in regular jobs, out of which 23.40 per cent are employed in private sector and 11.74 per cent in the government sector and 28.65 per cent are employed as casual workers. Most of the rural non-farm enterprises in Punjab are run on very small amount of capital with help of the unpaid family workers. A big majority of the sampled enterprises, has complained about the lack of capital, competition from large units and irregularity of work.

The average earnings are the highest for the regular workers and the lowest for the casual workers. The casual workers and the regular workers in the private sector are getting much below the stipulated minimum wages for the unskilled workers. However, as the earnings increase with the level of education, regularity of job and ownership of land.

It has also been found that the 19 per cent of the sampled workers live below poverty line out of which 5.27 per cent are extremely poor. The incidence of poverty is higher for the casual workers than other categories.

Further, it has been found that 34.14 per cent of the sampled non-farm households are indebted. A greater proportion of their debt is raised from the institutional sources but more of it is taken for unproductive purposes than the productive ones. The incidence of indebtedness is the highest among the casual workers and the lowest among the regular workers in the government sector. Though, the debt-asset ratio of the sampled workers is very low, but it is very high for the bottom asset holding

	<p>class who are severely indebted as their debt-asset ratio is greater than one.</p> <p>This study suggests that for ensuring decent employment in the rural non-farm sector of the state, a holistic approach of rural development aiming at improving the quality of rural infrastructure, education, health and other related social services, is required. There is an urgent need to address the constraints and problems of this sector at different levels. The major areas that need special focus are technology, skill development and training, infrastructure, financial services and rural-urban linkages.</p>
Contribution to the Society	<p>The present study will be helpful to the academicians, researchers, policy makers and the social activists/organizations to understand the problems and the prospects of the rural non-farm sector. It clearly shows the activities, type of workers as well as the areas where the rural non farm sector is performing well. Through the analysis of determinants of income and the magnitude of the poverty among the non farm workers, this study suggests some ways to create the decent employment opportunities in the rural areas to make the good policy decisions. The policy makers need firm information about the rural non farm sector. This study provides extensive information to the policy makers regarding the non farm sector in the rural areas of the state.</p>
Whether any Ph. D Enrolled/ Produced out of the Project	<p>One Ph.D. scholar, Ms. Satveer Kaur is working for her Ph.D degree, whose topic is closely related to the topic of the project.</p>
No. of the Publications resulting from the project work	<p>-----</p>