

GENERATION OF EMPLOYMENT AND INCOME IN RURAL ROAD TRANSPORTATION

First Author

Mriganka Shekhar Pathak,
SRF, Department of Commerce,
Gauhati University, Guwahati- 781014,

Second Author

Dr. Prashanta Sarma,
Professor, Department of Commerce,
Gauhati University, Guwahati- 781014,

Abstract

The development of road transport provides the basic infrastructure for bringing the rural people into the mainstream of life by connecting them with the urban centres. Transport is the key factor for economic and social development in rural areas. The highest contribution to GVA of our country is from the Service sector. Transport Services is an important component of Service sector. It has ample scope for generation of income and employment to both skilled and unskilled labour force in the Country as well as in the state of Assam. In this paper, an attempt has been made to analyse the scope for generation of rural employment and income of transport services providers in Kamrup District Assam. Primary data has been collected from the owners and service operators of select types of passenger carrying commercial vehicles operating in Public and Private sector. The paper concludes that in rural areas, scope for employment and income is more in private sector as compared to public sector transport services.

Keywords: road transport, passengers, employment, income, service, training.

I. INTRODUCTION

Road transportation is not only a means of inflow and outflow of resources for socio economic mobilisation, it also contributes directly in income and employment generation. The matter is very pertinent due to burgeoning unemployment problems in Assam. The present status of unemployment problem in Assam is as follow.

Table 1
Unemployment Status in Assam

CATEGORY	NO. OF UNEMPLOYED	PERCENTAGE
Medical graduates	942	0.06
Engineering graduates	7,804	0.47
Veterinary graduates	327	0.02
Agri graduates	832	0.05
Postgraduates	16,576	0.99
General graduates	3,17,824	19.08
HS-passed candidates	6,82,796	40.98
HSLC-passed candidates	5,67,340	34.06
Diploma holders	9,167	0.55
ITI certificate holders	16,121	0.97
Others	46,137	2.77
Total	16,65,866	100

Source: State Skill, Employment and Entrepreneurship Department, Nov 2018

The transportation service sector being labour and skill intensive may provide enough opportunity to the those having low level of educational qualification, for employment.

II. REVIEW OF LITERATURE

Various authors, academicians, research scholars, government and non-government agencies have conducted studies on different aspects of road transportation.

Bhat, B. Jayarama, (1987) did a research work entitled, “Road transport and rural development- A case study of Dakshina Kannada District” which studied the implications of development of road transport on agricultural development, industrial development, intra-regional development and consumer satisfactions.

Mote, D.K., (2002) in his thesis, “*An analytical study of organisation and management of rural road transport in Ahmednagar District*” studied the present state of rural road transport in Ahmednagar District and tried to find out the importance of rural road transport in creation of employment opportunities and its effect in socio-economic life of the village people.

Shamasundar, (2004) in his study entitled, “*Passenger road transport system: a case study of Shimoga district*”, analysed the role of passenger road transport system in economic development of Shimoga District and also evaluated the views of heavy and light passenger transport vehicles users and operators regarding the functioning of Transport Authorities in regulating the passenger traffic and operations.

Thus, the review of literature and research shows that no study has been done on the employment and income generation in Assam or Kamrup District. The current research topic has been proposed with a view to study the contribution of transportation services in income and employment generation of the people in the District.

III. OBJECTIVE OF THE STUDY

The study has been undertaken with the following objectives:

1. To examine the employment generation from transport services in Kamrup District
2. To study the generation of income of transport service providers in Kamrup District
3. To put forward suggestions and recommendations to the government and service providers of rural transportation.

IV. RESEARCH METHODOLOGY

For the purpose of the study the researcher has chosen only five types of commercial vehicles viz. Buses, traveller and wingers, Magics and tempo under both public and private ownership. The population of the study comprises of all the operators of buses, travellers and wingers, magics, tempos providing transport services in Kamrup District.

The researcher has applied **Taro Yamane formula** as follows.

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{926}{1 + 926(0.05)^2}$$

$$= 279$$

Therefore, the sample size for the study is 279.

Table 2
Proportion of Samples

<i>Vehicles</i>	<i>Populations</i>	<i>Select Vehicles</i>
ASTC Buses	103	103x279/926= 31
Private Buses	168	168x279/926= 51
Travellers and Wingers	218	218x279/926= 66
Magics and Tempos	437	437x279/926= 131
Total	Population size = 926	Sample Size= 279

V. ANALYSIS AND INTERPRETATION

The analysis and interpretation on the basis of the data provided by the various respondents are as follows.

5.1 Direct Employment

Table 3
Total number of persons employed in various transport services in the District

Type of Vehicle	Number of vehicles	Total number of persons engaged	Ratio (vehicle: employee)	Percentage
ASTC Bus	103 (10.92%)	515	5:1	26.74
Private Bus	168 (17.82%)	504	3:1	26.17
Travellers and Wingers	235 (24.92%)	470	2:1	24.40
Magics and Tempos	437 (46.34%)	437	1:1	22.69
Total	943 (100%)	1926		100%

Source: Field Survey

It is observed from the table that out of total 1926 persons, 73.26 percent are employed in the private sector.

5.2 Reasons for choice of road transport service as occupation

Table 4
Choice of Transport Service as occupation by drivers, conductors and handymen

Reasons	Vehicles				TOTAL
	ASTC	Private Buses	Travellers and Wingers	Magics and Tempos	
Better earning avenue	40	38	50	38	166
Did not get any other job	15	89	70	82	256
Interesting and challenging	7	26	12	11	56
TOTAL	62	153	132	131	478

Source: Field Survey

Majority (53.6 percent) of them joined this occupation because they did not get any other suitable job. It implies that the majority employees of select vehicles are engaged in transportation service not by choice, but because of compulsion.

5.3 Acquisition of Driving Skill

The researcher has the following hypothesis in this relation.

H_0 = There is no association between the type of training and the type of vehicles.

H_1 = There is association between the type of training and the type of vehicles.

The researcher has applied χ^2 test for testing the hypothesis.

The following table shows the sources from which the drivers of the various types of vehicles have learned the driving skills.

Table 5
Learning of driving skill

<i>OPTIONS</i>	<i>ASTC buses</i>	<i>Private buses</i>	<i>Travellers and Wingers</i>	<i>Magics and Tempos</i>	<i>TOTAL</i>
From Training Centre	21	10	2	0	33
While working as conductor/handyman	6	32	35	0	73
From friends or relatives	4	9	29	131	173
TOTAL	31	51	66	131	279

Source: Field Survey of drivers

The calculated value of χ^2 is 208.63 where $v = (r-1)(c-1) = (3-1)(4-1) = 6$

The tabulated value of χ^2 is 12.6 at 5% level of significance. Since the calculated value of χ^2 is more than table value, therefore H_0 is rejected. It can be stated that the type of training received by the drivers have association with types of vehicles.

5.4 Indirect Employment

Table 6
Transportation and economic activity

Yes	No
228	51
81.75%	18.25%

Source: Field Survey

81.75 percent of the respondents are of the opinion that the development in road transport system has contributed significantly to the growth and expansion of economic activities in their areas.

5.5 Income of service providers in ASTC buses

Presently, 647 buses of ASTC are operating in Assam out of which 270 operate as city buses in the state capital. The revenue collection stood at Rs 21.91 lakh a day. The ASTC earned Rs 448.32 lakh per month from long distance buses. The ASTC pays Rs 6.82 crore per month as salaries to its employees –(Chandra Mohan Patowary, Minister of Transport, GOA, 7 Feb 2018).

The government of Assam has decided to pay salaries to permanent employees as per revised pay scale announced by Pay Commission w.e.f. 1st September 2019. (Amar Asom, 22-08-2019).

In the primary investigation, the researcher came to know from the Station Superintendent, and Assistant Personnel Officer Rupnagar, Guwahati, that the **income generated through operations of the ASTC bus services is inadequate** for meeting all the expenses.

5.6 Earnings of drivers and conductors of ASTC buses

Table 7
Earnings of Drivers and Conductors per month (in Rupees)

<i>Occupation</i>	<i>8500(fixed pay)</i>	<i>25000- 35000</i>	<i>35,000 and above</i>	<i>TOTAL</i>
<i>Drivers</i>	-	4	7	11
<i>Conductors</i>	-	7	2	9
<i>Trainee driver cum conductors</i>	42	-	-	42
Total	42 (68%)	6 (10%)	14 (22%)	62 (100%)

Source: Field Survey of ASTC

5.7 Income of owners of private buses

Table 8
Income of owners per bus per day (in Rupees)

<i>Income per day (in Rupees)</i>	<i>Mean Income per day</i>	<i>No of buses</i>	<i>Total Income</i>	<i>No of owners</i>	<i>Average Income per day</i>
4000-5000	4500	24	1,08,000	13	8,308
5000-6000	5500	18	99,000	7	14,143
6000-7000	6500	9	58,500	5	11,700
TOTAL		51	₹2,65,500	25	₹10,620

Source: Field Survey

From the above table the average income per day for a bus owner comes to ₹10,620. It is found that except on Sunday or on a bandh call given by various organisations, buses operate for minimum 25 days in a month. Hence, a single bus owner having 1 bus may have an average monthly income of $(5,206 \times 25) = \text{Rs.1,30,150}$.

5.8 Income of owners of travellers and wingers

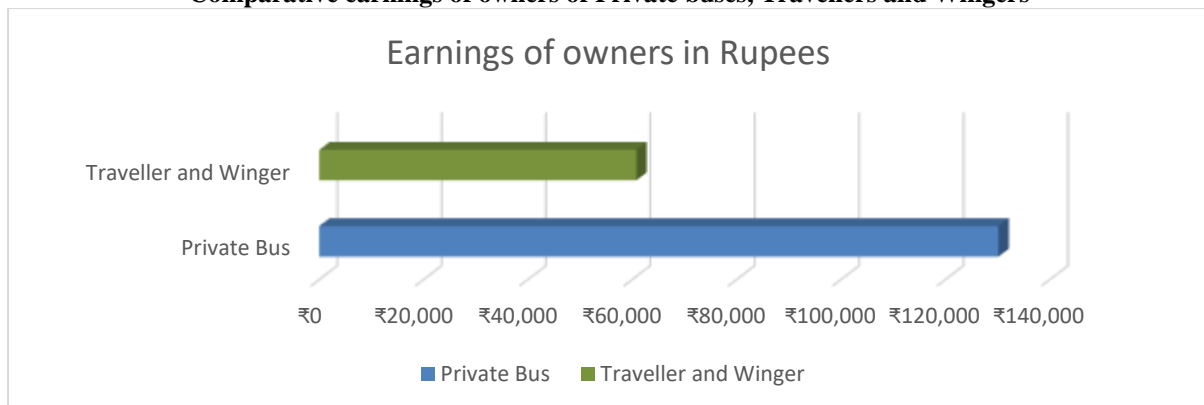
Table 9
Income of owners per Traveller or Winger per day

<i>Income per day (in Rupees)</i>	<i>Mean Income per day</i>	<i>No of vehicles</i>	<i>Total Income</i>	<i>No of owners</i>	<i>Average Income per day</i>
2000-2500	2250	48	1,08,000	23	4,696
2500-3000	2750	12	33,000	7	4,714
3000-3500	3250	6	19,500	2	3,250
TOTAL	3000	66	₹1,60,500	32	₹5,016

Source: Field Survey

From the above table the average income per day for an owner comes to ₹5,016. It is found that except on Sunday or on a Bandh call given by various organisations, travellers and wingers operate for minimum 25 days in a month. Hence, a single traveller or winger owner having 1 vehicle may have monthly income of minimum $(2,431 \times 25) = \text{₹60,775}$.

Fig 1
Comparative earnings of owners of Private buses, Travellers and Wingers



Source: Field Survey

5.9 Earnings of service operators of private buses

The per day income of a driver, a conductor and handyman in private buses are shown in the table below.

Table 10
Earnings of Drivers, Conductors and Handymen of Private buses

<i>Income per day (in Rupees)</i>	<i>Mean Income per day</i>	<i>No of Drivers</i>	<i>No of Conductors</i>	<i>No of Handymen</i>
400-500	450	0	11	43
500-600	550	6	37	8
600-700	650	32	3	0
700-800	750	13	0	0
AVG income per day	-	₹805	₹534	₹466

Source: Field Survey

Assuming 25 days operation a month, a driver on average earn **Rs. 20,125** per month.

A conductor earn **₹13,350** per month and a handyman earns **₹11,650** per month.

5.10 Earnings of Service Operators of Travellers and Wingers

Table 11
Earnings of Drivers and Handymen of Travellers and Wingers

<i>Income per day (in Rupees)</i>	<i>Mean Income per day</i>	<i>No of Drivers</i>	<i>No of Conductors cum Handymen</i>
300-400	350	0	25
400-500	450	08	35
500-600	550	45	06
600-700	650	13	0
Average income per day	-	₹558	₹421

Source: Field Survey

From the above table a driver's average earning is calculated to be **Rs. 13,950** per month and a conductor cum handyman earns **Rs. 10,525** per month. (25 days operation)

5.11 Income of Owners Cum Service Operators of Magics and Tempos

The daily income generated by the owners of these two types of vehicles are shown in the table below

Table 12
Income of Owners cum operators of Magics and Tempos per day

<i>Income per day (in Rupees)</i>	<i>Mean Income per day</i>	<i>No of owner cum driver</i>	<i>Percentage</i>
300-400	350	21	16%
400-500	450	78	59.5%
500-600	550	32	24.5%
TOTAL		131	100%
Average income per day	-	₹458	

Source: Field Survey of drivers

The monthly average income of magic and tempo owners cum drivers is **Rs. 11,450**.

VI. MAJOR FINDINGS

- i. The number of employees engaged in private vehicles and ASTC, it is seen that private sector passenger carrying commercial vehicles have played a significant role in generating employment in transport service.
- ii. Majority (53.6 percent) of the drivers, conductors and handymen of different types of select vehicles joined transport service as occupation because they did not get any other suitable job.
- iii. It is observed that in case of ASTC bus service majority of drivers acquired the driving skill from training centres (68 percent). This is because of the reason that the corporation has a mandatory requirement of a

- formal training certificate and thereby to obtain license from the District Transport Officer. In other forms of commercial vehicles formal training of drivers and conductors is found to be negligible.
- iv. 81.75 percent of the respondents are of the opinion that the development in road transport system has contributed significantly to the growth and expansion of economic activities in their areas.
 - v. The income generated through operations of the ASTC bus services is inadequate for meeting all the expenses, compelling them to rely on subsidies provided by the State Government annually to make up the deficit.
 - vi. It is found that out of the total sample of ASTC employees' 68 percent are employed as trainees and only 32 percent were permanent employees. Trainee driver cum conductors earn miniscule amounts of remuneration.
 - vii. A single private bus owner having 1 bus may have an average monthly income of **Rs.1,30,150**.
 - viii. A single traveller or winger owner having 1 vehicle may have monthly income of minimum **₹60,775**.
 - ix. A private bus driver, Traveller or winger driver, tempo driver on average earn **Rs. 20,125** per month, **Rs. 13,950** and **Rs. 11,450**.
 - x. A conductor of a private bus, traveller/winger earn **₹13,350** and **Rs. 10,525** per month respectively
 - xi. A handyman of a private bus on average earns **₹11,650** per month.
 - xii. If there is regular flow of passengers and service is not interrupted, the service operators in the capacity of a driver, conductor or handyman can earn a good livelihood and manage a small family in the rural areas.

VII. RECOMMENDATIONS

- i. The government of Assam should take initiative for setting up Driving Training Centres particularly in rural areas and villages for the educated unemployed youth and make them skilled and efficient for this occupation.
- ii. Transport service can be regarded as an important avenue for employment and earning income for livelihood for a section of the society particularly for those individuals who are not highly educated and less suitable for white collar jobs.
- iii. The income of the trainee driver cum conductor under ASTC bus service is quite low for an honourable livelihood. The Government should take steps to enhance the fix pay and also regularize their services within a reasonable time period.
- iv. The banks and financial institutions should provide easy finance with reasonable rate of interest to encourage more people to enter in the field of transport services business particularly in semi-urban and rural areas as it offers employment and earnings avenues for an honourable livelihood.
- v. The government should undertake repair works of the damaged roads and build new roads connecting towns and villages so as to facilitate better transportation service resulting in employment generation, both directly as well as indirectly. This will contribute towards socio-economic development of the region.
- vi. Lastly, the government may create a welfare fund or social security schemes to aid retired or disabled transport service operators.

VIII. CONCLUSION

To conclude, a good number of persons are employed in this service as owners, drivers, conductors and handymen of various types of vehicles. Similarly, a section of the society in the rural areas are self-employed or indirectly employed in various economic activities as small traders, vendors, hawkers, vegetable and fruit sellers, dhabas, restaurants etc. because of development in road transport system in their localities. Thus, road transport service has opened up avenues for employment.

With the increase in employment in transport services, a considerable number of people are availing of the opportunity to generate income. So, the government should come forward with adequate measures for improving the conditions of roads and bridges in the District and revise the fare rates of the vehicles from time to time considering the increased cost of operation and inflation. Proper training should be provided to the drivers by establishing training centres in rural areas which may prevent road accidents and improve the quality of service. The banks and financial institutions should also provide financial support to the prospective owners thereby encouraging young and dynamic entrepreneurs in this sector.

IX. REFERENCES

- Srija, A. (2015). Employment Potential of the Road Transport Sector, CII.
- Medhi, S.B. (1978). Transport System and Economic Development in Assam, Publication Board, Assam.
- Gupta, D.P. (2001). Perspective on Rural Roads in India, RITES Journal.
- Public Transport-Editorial, The Assam Tribune, vol 81, no-40, Feb 12-2019, pg-6.
- Chatterji, Saubhadra. (19 June 2019). 'Better rural roads led to job opportunities in India': World Bank report, Hindustan Times.
- Michael and Bonavia (1966). The Economy of Transport, James Nisbet & Co. Ltd, Cambridge University Press.
- Srivastava, S.K. (1964). Transport Development in India, S Chand and Co, Delhi.
- Srivastava, S. K. 1981. Economics of Transport, S Chand and Co, New Delhi 55.
- <https://www.sentinelassam.com/news/report-almost-20-lakh-jobless-in-assam/>
- Hazarika, P.L. (2010). Levels of Development of Road Transport in Assam, Gauhati University Journal of Commerce, Volume XVI, Gauhati University.