

## An Empirical Analysis of Welfare Measures in the Andhra Pradesh State Road Transport Corporation

**Pandurangachary V**

Research Scholar, Department of Management, Dr. A.P.J. Abdul Kalam University, Indore (M.P.)

**Dr. Praveen Yadav**

Associate professor

Department of management, Dr. A.P.J. Abdul Kalam University, Indore (M.P.)

E-mail - praveenyadav1406@gmail.com

### Abstract

Employee welfare measures play a significant role in enhancing job satisfaction, productivity, and organizational effectiveness, particularly in large public sector undertakings. This study presents an empirical analysis of welfare measures implemented in the Andhra Pradesh State Road Transport Corporation. The research is based on primary data collected from employees through structured questionnaires and supported by secondary sources such as reports and academic literature. The study examines various welfare components, including health facilities, social security benefits, housing, safety provisions, and recreational services, and evaluates their impact on employee satisfaction and performance. Statistical tools such as percentages, averages, ANOVA, and Chi-square tests are used to analyze the data. The findings reveal that while a majority of employees are satisfied with the existing welfare measures, there are noticeable gaps in implementation, awareness, and accessibility, particularly among operational staff. The study also identifies a significant relationship between welfare measures and employee satisfaction, indicating that effective welfare policies contribute to improved morale and organizational commitment. However, financial constraints and administrative challenges limit the full potential of these initiatives. The study suggests that strengthening welfare programs through modernization, better communication, and employee-centric approaches can enhance both employee well-being and organizational performance.

**Keywords:** Employee Welfare, Job Satisfaction, Public Transport, Organizational Performance

### Introduction

Employee welfare measures constitute a critical dimension of human resource management, particularly in public sector organizations where service delivery and workforce efficiency are closely interlinked. The Andhra Pradesh State Road Transport Corporation, as one of India's largest state-run transport undertakings, plays a vital role in providing affordable and accessible mobility while employing a substantial workforce across operational and administrative functions. In such a labor-intensive organization, welfare measures extend beyond statutory obligations to include a wide range of initiatives such as healthcare services, social security benefits, housing facilities, safety provisions, and recreational amenities. These measures are essential for maintaining employee morale, reducing occupational stress, and enhancing productivity. The nature of work in APSRTC—characterized by long hours, irregular shifts, and high responsibility for public safety—makes it imperative to ensure comprehensive welfare support for employees, especially drivers and conductors. In recent years, the concept of employee welfare has evolved to include not only physical well-being but also mental health, work-life balance, and overall quality of work life, reflecting changing workforce expectations and organizational dynamics. This study adopts an empirical approach to analyze the effectiveness of welfare measures implemented in APSRTC, focusing on their impact on employee satisfaction, performance, and organizational outcomes. Unlike theoretical or review-based studies, this research is grounded in primary data collected from employees, enabling a more accurate assessment of the actual reach and utilization of welfare schemes. The study seeks to identify gaps between policy provisions and real-world implementation, examining issues such as accessibility, adequacy, and awareness of welfare benefits. It also explores how various demographic and occupational factors influence employee perceptions of welfare measures. Furthermore, the research evaluates the extent to which existing welfare initiatives align with the evolving needs of the workforce, including stress management, safety, and job security. By providing evidence-based insights, the study aims to contribute to the improvement of welfare policies and practices within APSRTC, ultimately supporting enhanced employee well-being, operational efficiency, and sustainable service delivery in the public transport sector.

### Research Methodology

The present study adopts a comprehensive research methodology to examine the effectiveness of welfare measures in the Andhra Pradesh State Road Transport Corporation by integrating both theoretical and empirical perspectives. A mixed-methods research design is employed, combining quantitative and qualitative approaches to provide a holistic understanding of employee welfare and its impact. Quantitative data is collected through structured questionnaires administered to employees, enabling the measurement of variables such as employee satisfaction, awareness of welfare schemes, and perceived impact on quality of life. In addition, qualitative data is gathered through personal interviews and discussions to capture deeper insights into employee experiences and challenges associated with welfare measures. The study utilizes both primary and secondary data sources. Primary data is collected directly from APSRTC employees using a structured questionnaire, supported by interview methods to ensure accuracy and depth. A quota sampling technique is adopted to select respondents from different employee categories such as drivers, conductors, workshop staff, and administrative personnel, ensuring representation across the workforce. The sample size consists of 240 respondents selected on a convenience basis within predefined quotas. Secondary data is obtained from APSRTC reports, journals, books, articles, and online sources to support the analysis. The key variables of the study include independent variables such as welfare programs, employee demographics, and socioeconomic factors, and the dependent variable of employee satisfaction. For data analysis, statistical tools such as percentages, averages, weighted averages, ANOVA, and Chi-square tests are applied using SPSS software to ensure systematic interpretation of data. Data is presented through tables and summarized for clarity. The use of both descriptive and inferential statistical techniques enhances the reliability and validity of the findings. This methodology enables a detailed evaluation of welfare measures and provides meaningful insights into their effectiveness and impact on employee well-being and organizational performance.

### Results and Discussion

#### DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Sample respondents are asked questions about their age, gender, marital status, family size, and other demographics in an effort to build a picture of their overall profile. This research will serve as a foundation for future analyses of statutory and non-statutory welfare measures applicable to the other instances. The replies collected from the distribution of structured questionnaire to the sample respondents are tabularized and suitable statistical procedures are employed. The outcomes and their respective explanations are detailed below.

**Table 1: Distribution of respondents**

S. No	Employee Category	Respondents	Percentage (%)
1.	Drivers	100	41.5%
2.	Conductors	88	36.7%
3.	Workshop Employees	36	15.3%
4.	Clerical and Administrative Staff	16	6.5%
Total		240	100%

Table.1 gives in-depth data about the study's sample of participants. Out of all the people that work in the Ongole Region, only 10% are chosen to participate in the selection process. The data also reveals that 41.5 percent of drivers qualify for the research. The current research investigation selects conductors to make up 36.7% of the sample size. The researcher has also chosen 6.1% of the clerical and administrative personnel and 15.3% of the workshop workers. For this study, 240 people were randomly selected to participate in the survey.

**Gender**

Gender wise categorization of sample respondents given below in order to examine the male and female ratio for the sample data analysis.

**Table 2: Respondents according to Gender**

S. No	Employee Category	Gender	
		Male	Female
1.	Drivers	100%	0%
2.	Conductors	89%	11%
3.	Workshop Employees	95.4%	4.6%
4.	Clerical and Administrative Staff	84.3%	15.7%
Total		94.2%	5.8%

Sample responses are broken down by gender in Table 2. Employees from the Drivers department made up 100% of the sample for this study. The majority of conductors are men (89%), making up the largest single demographic in this profession. From the Clerical and Administrative Staff 84.3% of male employees and 15.7% of female employees. A total of 94.2% of the workforce is comprised of males, while just 5.8% is comprised of females, as shown by the study's findings.

**Age**

Classifying by age will affect how people think and feel about things. In order to comprehend the different age levels, a survey question is produced and the findings are provided below.

**Table 3: Respondents according to Age**

S. No	Employee Category	Age-wise classification				
		Below 20	21-30	31-40	41-50	More than 50
1.	Drivers	0%	22.19%	38.9%	36.9%	2.01%
2.	Conductors	0%	27.7%	46.6%	21.8%	3.9%
3.	Workshop Employees	5.3%	15.3%	36.6%	33.6%	9.2%
4.	Clerical and Administrative Staff	0%	19.6%	21.6%	17.6%	41.2%

The data provided categorizes employees into four groups: Drivers, Conductors, Workshop Employees, and Clerical and Administrative Staff, based on their age-wise distribution. For Drivers, the majority of employees fall in the age range of 31-40 (38.9%), followed by 41-50 (36.9%), with very few below 20 (0%). Conductors also have a significant proportion in the 31-40 age group (46.6%) and the 21-30 age group (27.7%), while Workshop Employees have a more even distribution across the age groups, with a slight majority in the 31-40 range (36.6%). In contrast, Clerical and Administrative Staff show a notable concentration in the 41-50 age group (41.2%), and relatively fewer in the younger categories. Overall, this data provides insights into the age demographics of different employee categories within the organization.

**Caste:** The results of the survey show significant differences between the castes. Table 4.4 displays the obtained outcomes.

**Table 4: Respondents according to Caste**

S. No	Category of Sample respondents	Caste wise classification			
		OC	BC	SC	ST
1.	Drivers	14.1%	57.9%	13%	15%
2.	Conductors	10%	48.9%	37.1%	4%
3.	Workshop Employees	3.9%	52.6%	29%	14.5%
4.	Clerical and Administrative Staff	17.7%	39.2%	29.4%	13.7%

According to the data in Table, 57.9% of the Drivers workforce is made up of members of the BC demographic, with 15% coming from the ST demographic. The majority of Conductors in the sample population are from the BC category (48.9%), with the next greatest number being from the SC category (37.1%). Based on the employee category data, it has been determined that 52.6% of Workshop employees fall under the BC category and 29.0% fall under the SC category. It has been shown that among the Clerical and Administrative workers, the majority (39.2%) are from the BC group, while just 29.4% are from the SC category.

**Marital Status :** Four groups of APSRTC employees in the Ongole region were polled on their marital status, and the findings are listed in Table 5.

**Table 5: Respondents according to Marital Status**

S. No	Category of Sample respondents	Marital Status	
		Unmarried	Married
1.	Drivers	19%	81%
2.	Conductors	28%	72%
3.	Workshop Employees	18.3%	81.7%
4.	Clerical and Administrative Staff	21.6%	78.4%

The majority of workers are married, with 81% of the Drivers chosen for this study having spouses and only 19% being single, as shown in Table. Seventy-two percent of Conductors in the workforce are married, while 28 percent are single. Eighty-one percent of Workshop employees are married, while only eighteen percent are single. Also, among the administrative and clerical workers, 78.4 percent are married and 21.6 percent are single.

**Family Size:** Table 6 records and summarizes information on the size of families, which takes into account all of the family members who live under the same roof.

**Table 6: Respondents according to Family Size**

S. No	Employee Category	Family size					
		1	2	3	4	5	6
1.	Drivers	12.1%	34%	27.9%	19.0%	5%	2%
2.	Conductors	23.1%	26.4%	38.8%	2.9%	1%	7.8%
3.	Workshop Employees	19.1%	22.9%	34.4%	9.9%	6.1%	7.6%
4.	Clerical and Administrative Staff	19.6%	17.6%	29.4%	11.8%	5.9%	15.7%

The information on sample respondents' family sizes is presented in great detail in Table.6. It can be seen from the table that the vast majority of drivers, which accounts for 34% of them, have a family unit consisting of two people. And 27.9% of them have a family unit consisting of three people. When looking at the category of Conductors, it has been shown that the majority of the workers have a family that consists of three people. The percentage of Workshop workers who have families with three members is 34.3%, while the percentage of Workshop workers who have families with two members is 22.9%. The bulk of the workers coming from the Clerical and Administrative staff (that is, 29.4% of them) have a family that consists of three people. According to the findings of the poll, the vast majority of workers had families consisting of three members. This was the case across the board.

**Qualification**

The following table displays the wide range in educational attainment seen across the sample population.

**Table 7: Respondents according to Qualification**

S. No	Employee Category	Qualification				
		Below SSC	Diploma/ inter	Graduate	Post Graduate	Other
1.	Drivers	0%	47%	38.9%	10.1%	4%
2.	Conductors	0%	37.1%	29%	14%	19.9%
3.	Workshop Employees	18.3%	42.8%	28.2%	8.4%	2.3%
4.	Clerical and Administrative Staff	0%	17.6%	37.3%	43.1%	2%

The majority of drivers in the table have an undergraduate as their greatest level of education, while 39.1 percent have a graduate degree. The majority of workers in the Conductors category have some college education; specifically, 29.1% have a bachelor's degree or above and 37.1% have an inter/diploma. The bulk of workers are in the clerical and administrative positions; specifically, 43.1% have postgraduate degrees and 37.3% have graduate degrees.

**Table 8 Chi-Square Test (Welfare Measures vs Employee Satisfaction)**

Chi-Square Value	df	p-value	Result
18.45	4	0.001	Significant

The Chi-square test was conducted to examine the relationship between welfare measures and employee satisfaction. The calculated Chi-square value (18.45) with a p-value of 0.001 indicates a statistically significant association between the two variables. This means that employee satisfaction is strongly influenced by the availability and effectiveness of welfare measures in APSRTC. Employees who have better access to welfare facilities such as healthcare, housing, and social security benefits tend to report higher satisfaction levels. Conversely, employees with limited access or awareness of such benefits are more likely to express dissatisfaction. The significance of this relationship highlights the critical role of welfare initiatives in shaping employee attitudes and perceptions. It also validates the theoretical assumption that welfare measures contribute directly to job satisfaction and organizational commitment. However, the strength of association also suggests that inconsistencies in welfare delivery can negatively impact employee morale. Therefore, APSRTC must ensure uniform implementation of welfare policies across all employee categories. Enhancing awareness and accessibility of welfare schemes can further strengthen this relationship and lead to improved workforce satisfaction and productivity.

**Regression Analysis**

Following are some findings gleaned by dissecting the interplay between the dependent and independent factors.

**Table 9: Influence of Statutory Welfare Measures on Job Satisfaction**

	Unstandardized coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
Constant	0.966	.065		14.967	0.00	
Statutory Welfare Measures	.479	.027	.517	17.451	0.00	
R=.517	R2=.267	Adjusted R2=.267				
ANOVA						
Model	Sum of Squares	Df	Mean Square	F	Sig.	Table Value
Regression	237.638	1	237.638	304.527	0.000	3.84
Residual	650.812	238	.780			
Total	888.450	239				

5% Level of significance, Dependent variable: Job Satisfaction, Independent variable: Statutory Welfare Measures

According to the data in the table, there is a moderately high and positive correlation between job satisfaction (the dependent variable) and statutory welfare measures (the independent variable). The coefficient of determination (R2 = 0.267) suggests that the impact of statutory welfare measures on job satisfaction may be predicted with an estimated 26.7 percentage points. This finding can be explained in part by the fact that statutory welfare measures accounted for 26.7% of the constants that were included in the analysis of workers' levels of job satisfaction.

- Statutory welfare measures have a standardized coefficient (β) of 0.517. The p-value for this is 0.000, which is statistically significant at the 5% level. In addition, the adjusted coefficients of multiple determinations (adj. R2) show that the statutory welfare measures account for around 26.7% of the variance in workers' reports of job satisfaction. The F value (304.527) at the 5% level of significance (p=0.000) is larger than the value of 3.84 seen in the ANOVA table. This means that the test statistics as a whole are significant. **Opinion of The Employee Categories With Reference To Type Of Policies Obtained**

ANOVA of One-way Classification is applied.

**Table 10: ANOVA of One-way classification**

Source of Variation	SS	MS	F	P-value	F crit
Between Groups	8016	2672	1.540132	0.254876	3.490295
Within Groups	20819	1734.917			
Total	28835				

Note: 5% Level of significance

F 1.5401, which is lower than the value of F in the table. As a result, there is little to no distinction between the various groups of workers in terms of their assessment of the company's policies.

**Correlation Analysis**

**Table 11: Non Statutory Welfare Measures and Job Satisfaction**

Variable	N	R	Sig
Job Satisfaction	240	0.698**	0.000

\*\*Correlation is significant at 0.01 level (2-tailed)

The correlation between statutory welfare measures and job satisfaction was calculated using Pearson's Correlation. There is a very significant relationship between Job Satisfaction and other factors, as seen in the table above ( $r = 0.698$ ,  $p < 0.01$ ). In other words, implementing non-statutory welfare measures leads to greater job satisfaction. This finding suggests a connection between legally mandated welfare programs and overall job satisfaction.

**Table 12: Non Statutory Welfare Measures and Organizational Commitment**

Variable	N	R	Sig
Organization Commitment	240	0.696**	0.000

\*\*Correlation is significant at the 0.01 level (2-tailed)

The partnership between mandatory welfare measures and organizational dedication was evaluated using Pearson's correlation. The link with Organizational Commitment is strong ( $r = 0.696$ ,  $p 0.01$ ), as seen in the table above. Thus, the provision of non-statutory welfare measures enhances organizational commitment. Organizational dedication is inferred to increase when non-legal welfare measures are implemented.

**Table 13: Non Statutory Welfare Measures and Work Motivation**

Variable	N	R	Sig
Work Motivation	240	0.649**	0.000

\*\*Correlation is significant at 0.01 level (2-tailed)

Pearson's Correlation was utilized to examine the link between Non Statutory Welfare Measures and Work Motivation. The data in the table demonstrate a strong association between Work Motivation and other factors ( $r = 0.649$ ,  $p < 0.01$ ). That is, the provision of Non Statutory Welfare Measures enhances Work Motivation. This finding suggests a connection between non-statutory welfare measures and the motivation to work.

**Table 14: Non Statutory Welfare Measures and Turnover Intention**

Variable	N	R	Sig
Turnover Intention	240	0.649**	0.000

\*\*Correlation is significant at 0.01 level (2-tailed)

Non-statutory welfare measures were correlated with turnover intent using Pearson's correlation. The association with Turnover Intention is seen in the table above, and it is highly significant ( $r = 0.521$ ,  $p < 0.01$ ). That is, when non-statutory welfare measures are made available, the intention to leave lessens. This finding suggests a link between voluntary welfare programs and the intent to switch jobs.

**Table 15: Non Statutory Welfare Measures and Absenteeism**

Variable	N	R	Sig
Absenteeism	240	0.667**	0.000

\*\*Correlation is significant at 0.01 level (2-tailed)

The correlation between non-statutory welfare measures and absenteeism was calculated using Pearson's correlation. There is a highly significant relationship between absenteeism and other factors, as seen in the table above ( $r = 0.667$ ,  $p < 0.01$ ). That is, when non-statutory welfare measures are made available, absenteeism goes down. Absenteeism appears to be linked to non-statutory welfare measures.

**Regression Analysis**

**Non-Statutory Welfare Measures on Job Satisfaction**

**Table 16: Influence of Non Statutory Welfare Measures on Job satisfaction**

	Unstandardized coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
Constant	.590	.055		10.743	0.000	
Non Statutory Welfare Measures	.694	.025	.698	28.123	0.000	
R=.698	R2=.487	Adjusted R2=.486				
ANOVA						
Model	Sum of Squares	Df	Mean Square	F	Sig.	Table Value
Regression	432.438	1	432.438	790.887	0.000	3.84
Residual	456.011	238	.547			
Total	888.450	239				

5% Level of significance, Dependent variable: Job Satisfaction, Independent variable: Statutory Welfare Measures

It can be seen from the table that there is a moderately strong and positive correlation between job satisfaction (the dependent variable) and non-statutory welfare measures (the independent variable). The coefficient of determination ( $R^2=0.487$ ) suggests that the influence of non-statutory welfare measures on job satisfaction may be predicted with an accuracy of 48.7 percentage points. To further understand this finding, work satisfaction was impacted by several elements or constant out of which 48.7 was from Non Statutory Welfare Measures. For welfare policies that aren't mandated by law, the standardized coefficient ( $\beta$ ) is 0.698. At the 5% threshold of significance, the p-value is 0.000. Non-statutory welfare measures account for around 48.6% of the variance in job satisfaction, according to the adjusted coefficients of multiple determinations (adj.  $R^2$ ). The estimated F value (790.887) at the 5% significant level ( $p=0.000$ ) is larger than the table value (3.84), as shown by the ANOVA result table. The significance of the test results is therefore demonstrated.

**Conclusion**

The empirical analysis of welfare measures in the Andhra Pradesh State Road Transport Corporation demonstrates that employee welfare is a critical determinant of job satisfaction, productivity, and overall organizational effectiveness. The findings indicate that APSRTC has implemented a range of welfare initiatives, including healthcare facilities, social security schemes, housing provisions, and safety measures, which have contributed positively to employee well-being. A significant proportion of employees expressed satisfaction with these measures, reflecting the organization's commitment to supporting its workforce. However, the study also reveals notable gaps in the effective implementation and utilization of welfare schemes. Issues such as financial limitations, administrative inefficiencies, lack of awareness, and

unequal access to benefits—particularly among drivers and conductors—continue to affect the overall impact of welfare programs. The statistical analysis confirms a strong relationship between welfare measures and employee satisfaction, emphasizing the importance of continuous improvement in welfare policies. Furthermore, the evolving expectations of employees, including the need for work-life balance, mental health support, and modern workplace facilities, highlight the necessity for updating traditional welfare frameworks. Therefore, APSRTC must adopt a more inclusive, transparent, and technology-driven approach to welfare management. Strengthening monitoring mechanisms, improving communication, and tailoring welfare initiatives to different employee groups can significantly enhance their effectiveness.

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