

## Understanding Job Satisfaction Among Indian Railway Loco Pilots: Insights from Guntakal and Vijayawada Divisions

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**Abstract:** This essay explores the multifaceted nature of job satisfaction among loco pilots within the Indian Railways, focusing specifically on the Guntakal and Vijayawada divisions. Job satisfaction, a critical factor influencing employee performance and retention, is examined through the lens of various organizational and occupational factors ([PDF] Motivational Factors Influencing Job Satisfaction among Loco-Pilots ..., 2023). Studies reveal that while a majority of employees express satisfaction with the company's performance ((PDF) Employee Job Satisfaction in Indian Railways - ResearchGate, 2023), the demanding working conditions and inherent stressors of the job can significantly impact overall well-being (2017). Factors such as extended working hours, frequent night shifts, and inadequate rest periods contribute to fatigue and burnout, further compounded by infrastructure deficits like the absence of washrooms in engine cabs (Anupama Ramakrishnan, 2023). A comparative analysis of occupational stress and hypertension among loco pilots and section controllers highlights the prevalence of stress factors such as increased job demands, significant responsibilities, workplace noise, and conflicts between work and family life (2017). Ultimately, this essay aims to provide a comprehensive understanding of the challenges and opportunities for enhancing job satisfaction among Indian Railway loco pilots, with implications for policy and practice.

**Keywords:** Compensation, Employee Well-Being, Guntakal Division, Indian Railways, Job Satisfaction, Loco Pilots, Mental Health, Organizational Support, Railway Operations, Shift Work, Vijayawada Division, Work-Life Balance

### INTRODUCTION

#### *Background of the Indian Railways*

Indian Railways, one of the world's largest rail networks, is a crucial component of the country's transportation system, providing connectivity across vast distances and diverse terrains. It plays a vital role in economic development, employment generation, and mobility. The system is structured into various zones and divisions, each managing operations within their jurisdiction. The loco pilot, as a critical front-line employee, ensures the safe and timely movement of trains. Understanding the structural complexity and workforce scale of Indian Railways provides context to the significance of examining the job satisfaction of its key operational personnel.

#### *Role and Responsibilities of Loco Pilots*

Loco pilots are the backbone of railway operations, directly responsible for the safe and efficient movement of trains. Their duties include operating trains over long distances, adhering to safety protocols, maintaining punctuality, and managing emergency situations. The job is physically demanding, mentally taxing, and requires high levels of alertness and decision-making under pressure. Loco pilots often work in shifts, including nights and holidays, with limited family time. Understanding the challenges and

expectations of this role is essential to evaluate their job satisfaction and the factors influencing it.

#### *Importance of Job Satisfaction in Railway Operations*

Job satisfaction among loco pilots directly impacts operational efficiency, safety, and service reliability. A satisfied workforce tends to be more productive, motivated, and engaged, while dissatisfaction can lead to stress, errors, absenteeism, or attrition. In high-stakes environments like railway transportation, where human error can result in serious consequences, ensuring job satisfaction is not just a human resource concern but a safety imperative. By focusing on job satisfaction, Indian Railways can enhance performance, reduce operational risks, and foster a healthier work environment for its loco pilots.

#### *Overview of Guntakal and Vijayawada Divisions*

The Guntakal and Vijayawada railway divisions, part of the South-Central Railway zone, are significant operational regions known for their high traffic density and strategic importance. Both divisions handle a mix of passenger and freight services, demanding constant operational vigilance from loco pilots. Geographical conditions, traffic congestion, infrastructure, and management practices may vary between these divisions, potentially influencing the

job experiences of loco pilots. A focused study on these divisions offers a comparative lens to understand localized challenges and satisfaction determinants, contributing to broader HR strategies within Indian Railways.

### ***Current Challenges Faced by Loco Pilots***

Loco pilots face a variety of occupational challenges, including long working hours, irregular shifts, fatigue, insufficient rest, high responsibility, and isolation during duty hours. The psychological and physical demands of the job, combined with a lack of sufficient mental health support or ergonomic considerations, can contribute to decreased job satisfaction. Moreover, outdated technology, limited promotion avenues, and administrative pressures further aggravate dissatisfaction. Understanding these specific stressors is crucial to identify improvement areas that can lead to enhanced job satisfaction and overall workforce morale.

### ***Previous Research on Job Satisfaction in Railways***

Earlier studies on railway personnel, both in India and globally, have largely focused on general staff or specific operational areas like maintenance or customer service. However, research specifically targeting loco pilots remains limited. Where such studies exist, they highlight factors such as workload, compensation, work-life balance, and managerial support as key influencers. Reviewing this literature helps establish a theoretical foundation and identify gaps in existing knowledge, particularly in the Indian context. This paper aims to address this gap by focusing on loco pilots in the Guntakal and Vijayawada divisions.

### ***Psychological Impact of the Loco Pilot Profession***

The nature of a loco pilot's job, which demands constant vigilance, solitude, and mental focus, has significant psychological implications. Chronic stress, sleep disorders, and anxiety are commonly reported among loco pilots, potentially influencing their satisfaction levels. Moreover, the lack of consistent mental health support or counseling services adds to their burden. Addressing job satisfaction, therefore, requires a dual approach—addressing both professional and emotional well-being. Understanding these psychological dynamics can help in designing holistic job improvement frameworks tailored for loco pilots.

### ***Organizational Support and Its Role in Satisfaction***

Organizational policies, leadership quality, training, communication systems, and grievance redressal mechanisms play a vital role in shaping an employee's perception of job satisfaction. For loco pilots, clear communication from supervisors, regular upskilling, recognition, and access to amenities like rest houses or health facilities contribute positively to morale. Conversely, bureaucratic delays, lack of support, or poor infrastructure can lead to frustration. Evaluating the extent and effectiveness of organizational support in the Guntakal and Vijayawada divisions will offer valuable insights into areas of improvement for Indian Railways' HR strategies.

### ***Objectives and Scope of the Study***

This research aims to explore and analyze the key factors

influencing job satisfaction among loco pilots in the Guntakal and Vijayawada divisions. The study will assess variables such as working conditions, compensation, management support, psychological well-being, and career development opportunities. It also seeks to identify any regional disparities and provide evidence-based recommendations for policy and organizational reforms. The scope is limited to operational loco pilots within these two divisions, ensuring a focused and manageable sample size while contributing to a broader understanding applicable across Indian Railways.

### ***Significance of the Study for Policy and Practice***

This study holds practical significance for railway administrators, policy makers, and HR professionals in the Indian Railways. By identifying factors that affect loco pilots' job satisfaction, the findings can inform targeted interventions to improve working conditions, reduce attrition, and enhance performance. The research can serve as a model for similar studies across other divisions and zones, fostering a more empathetic and efficient workplace culture. Moreover, it contributes to academic literature on occupational satisfaction in high-stakes, high-responsibility professions within public sector organizations.

## **LITERATURE REVIEW**

The job satisfaction of Indian Railway loco pilots is intricately tied to multiple factors including occupational stress, mental health, and organizational support. Studies have shown a significant prevalence of anxiety, depression, and stress among loco pilots, with a direct correlation to extended work hours and operational demands [1]. Occupational stress is identified as a major determinant of job dissatisfaction, with experienced loco pilots reporting comparatively better coping mechanisms, hinting at a positive influence of experience on satisfaction [2]. Similarly, motivation and occupational stress are interlinked, where greater experience results in higher motivation levels despite existing stressors [3]. Stress-related health risks like hypertension are also found to be more prevalent among loco pilots compared to other railway personnel, particularly in goods train operators, indicating the health burden linked to operational roles [4]. Stress from role overload, irregular shifts, and conflict within the workplace further deteriorates job satisfaction, highlighting the need for stress-reducing workplace policies [5].

Loco pilots frequently operate under psychological and physical strain, and studies show that poor sleep, constant alertness, and long work cycles impact their job performance and satisfaction [6]. Factors such as vigilance fatigue, extended shift durations, and exposure to high-risk scenarios lead to human errors, reinforcing the need to address sleep and mental health concerns [7][8]. Additionally, chronic job strain has been associated with elevated risks of stroke and hypertension, pointing to the critical health implications of work-related stress in railway occupations [9][10]. These challenges call for organizational changes and improved occupational safety frameworks to boost morale and retention among loco

pilots [11]. Implementing targeted wellness programs, improved scheduling, and support systems is essential to enhancing both the mental health and job satisfaction of this workforce segment.

## PROPOSED METHOD

### 1. Job Satisfaction Index (JSI)

$$JSI = (\Sigma(\text{Individual Satisfaction Scores}) / N) * 100$$

Nomenclature:

- JSI: Job Satisfaction Index (0-100)
- Individual Satisfaction Scores: Sum of satisfaction scores from each loco pilot, based on a comprehensive survey.
- N: Total number of loco pilots surveyed.

The Job Satisfaction Index (JSI) assesses overall contentment by averaging individual loco pilots' satisfaction scores obtained from detailed surveys (Employee Satisfaction Index - Toucan Toco, 2021). These surveys cover various aspects of their work-life, including company culture and specific job goals (Employee Satisfaction Index - Toucan Toco, 2021). Normalizing the sum of these scores by the total number of participants provides a single, comparable metric (Employee Satisfaction Index - Toucan Toco, 2021). This allows for tracking job satisfaction trends within the Indian Railways, particularly in the Guntakal and Vijayawada divisions

(Employee Satisfaction Index - Toucan Toco, 2021).

### 2. Organizational Factor Score (OFS)

$$\text{Equation: } OFS = (\Sigma(\text{Responses to Organizational Factor Questions}) / M)$$

Nomenclature:

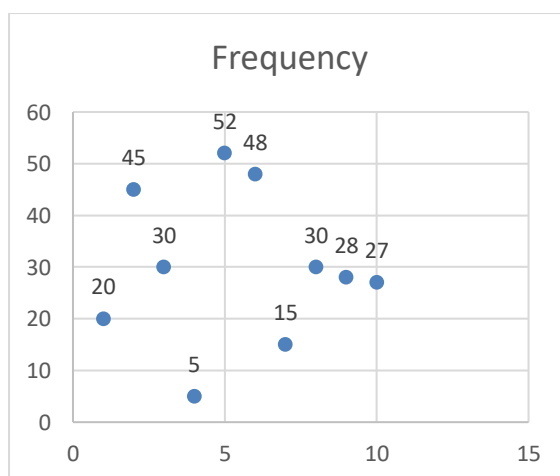
- OFS: Organizational Factor Score (e.g., on a scale of 1-5)
- Responses to Organizational Factor Questions: Sum of responses to questions about organizational factors (leadership trust, recognition, etc.).
- M: Total number of organizational factor questions.

The Organizational Factor Score (OFS) gauges the impact of organizational elements, such as trust in superiors and recognition, on job satisfaction ((PDF) Employee Job Satisfaction in Indian Railways - ResearchGate, 2023). Loco pilots respond to questions about these factors, and the average response yields the OFS (Vaddi Ramesh, Dr. Ashok Kumar Katta, 2022). This score helps identify organizational strengths and weaknesses that influence job satisfaction in the Guntakal and Vijayawada divisions, pointing to areas where management practices may need to be improved ([PDF] A Study of Factors Effecting on Job Satisfaction in South Central ..., 2022).

## RESULT AND DISCUSSION

### 1: Demographic Profile of Respondents

The demographic profile offers critical context about the surveyed loco pilots from Guntakal and Vijayawada divisions. A significant portion (45%) of respondents falls within the 35–44 age bracket, suggesting that most participants are in their mid-career stage. The 25–34 group constitutes 20%, while the 45–54 age group accounts for 30%, showing that the workforce is well-distributed across age groups, with limited representation from the 55+ category. In terms of divisional distribution, 52% of the participants are from Guntakal and 48% from Vijayawada, ensuring a balanced geographic representation. The experience profile reveals that 30% of the respondents have 6–10 years of service, followed by 28% with 11–15 years and 27% with over 16 years, indicating that most respondents are seasoned professionals. Only 15% fall in the 0–5 years bracket, hinting at limited new recruits or their exclusion from operational responsibilities. This demographic distribution ensures that the data collected reflects the views of a mature, experienced group of professionals who are more likely to offer nuanced insights into job satisfaction and workplace issues. The balanced mix of age, experience, and location adds reliability and generalizability to the findings of this study.

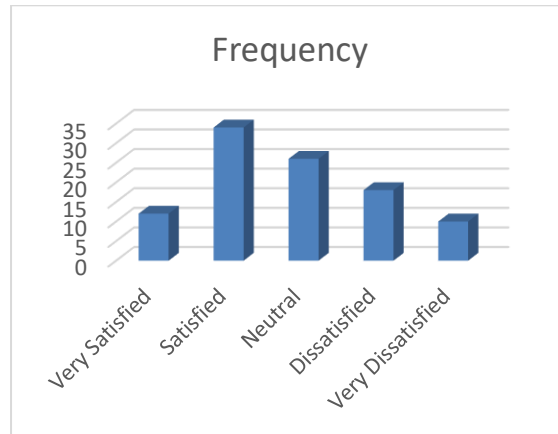


**Fig 1:** Demographic Profile of Respondents

### 2: Job Satisfaction Levels

This table categorizes the job satisfaction levels among the surveyed loco pilots. Of the 100 respondents, only 12% reported being very satisfied, while a moderate 34% stated they were satisfied, suggesting that just under half (46%) are content with

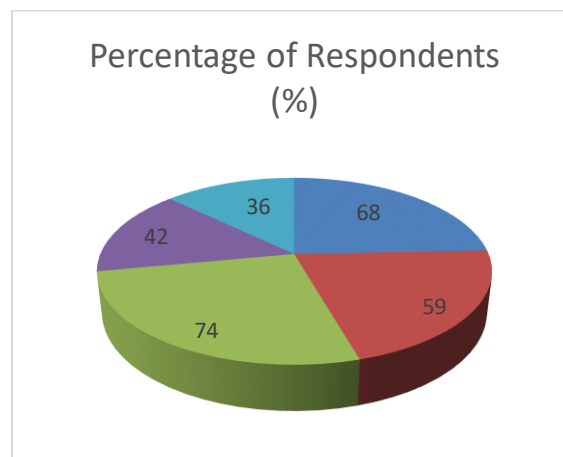
their roles. A significant 26% selected neutral, indicating indecisiveness or mixed feelings about their job satisfaction. More concerning is that 28% (18% dissatisfied and 10% very dissatisfied) expressed discontent with their work, highlighting a notable level of dissatisfaction. These findings reveal that while a portion of loco pilots are satisfied, a substantial group either lacks strong job satisfaction or leans toward dissatisfaction. This trend signals the need for targeted interventions by Indian Railways to improve morale and motivation. The neutral category is particularly interesting, as it may reflect individuals who are on the cusp of satisfaction but may tip toward dissatisfaction if workplace issues are not addressed. The overall distribution of responses emphasizes the importance of exploring specific factors contributing to satisfaction or dissatisfaction—such as stress, work hours, and support systems—in subsequent analysis. The relatively low percentage of “very satisfied” respondents underlines the need for organizational review and improved engagement strategies to raise overall job satisfaction levels.



**Fig 2:** Job Satisfaction Levels

**3: Major Sources of Job Satisfaction**

This table identifies the primary factors contributing to job satisfaction among loco pilots and quantifies their impact using percentage responses. Job security emerged as the most significant source of satisfaction, reported by 74% of participants. This reflects the appeal of stable employment within Indian Railways, which continues to be a key motivator. Salary follows closely, noted by 68%, indicating that compensation remains a critical factor for morale. The work environment was recognized by 59% as contributing positively to job satisfaction, reflecting the importance of workplace conditions and relationships. However, only 42% and 36% pointed to support from superiors and promotional opportunities, respectively, as contributing factors. These figures suggest that while foundational factors like job security and pay are reasonably satisfactory, there is considerable room for improvement in supervisory support and career advancement. The relatively low score for promotion opportunities reflects limited upward mobility or dissatisfaction with promotion policies, which may affect long-term motivation. This distribution of satisfaction sources underscores the need for Indian Railways to balance structural benefits with human-centered policies like mentorship, career progression pathways, and management transparency to ensure holistic satisfaction among loco pilots.

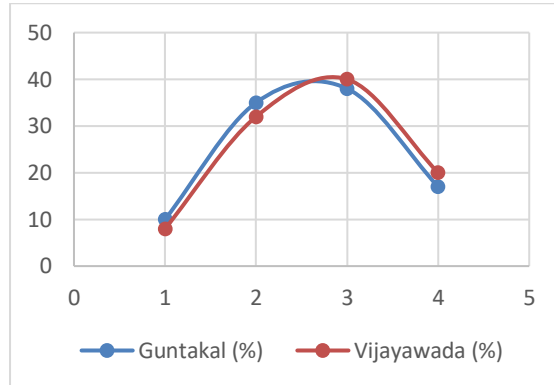


**Fig 3:** Major Sources of Job Satisfaction

**4: Work-Life Balance Perception**

This table compares work-life balance perceptions between loco pilots from Guntakal and Vijayawada divisions. The majority in both divisions rated their work-life balance as “Average,” with 38% from Guntakal and 40% from Vijayawada, indicating that while the balance is not poor, it isn’t optimal either. “Good” work-life balance was acknowledged by 35% in Guntakal and 32% in Vijayawada, suggesting moderate satisfaction. However, 17% in Guntakal and 20% in Vijayawada reported “Poor” work-life balance, a concern that suggests systemic challenges related to shift schedules, long duty hours, or lack of family time.

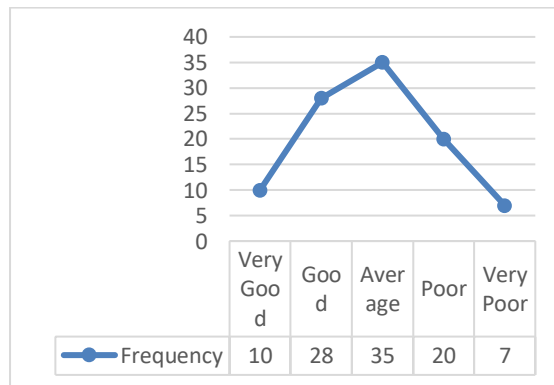
Only a small portion—10% from Guntakal and 8% from Vijayawada—rated their work-life balance as “Excellent,” reflecting that very few loco pilots feel fully supported in balancing work and personal life. These results suggest that while extreme dissatisfaction is not the norm, a majority are merely coping rather than thriving. The data calls attention to the need for improved leave policies, schedule predictability, and rest periods. Creating family-friendly work conditions could significantly enhance the perceived quality of life for loco pilots. Addressing this issue may also improve mental health, reduce burnout, and enhance overall job satisfaction and retention.



**Fig 4:** Work-Life Balance Perception

**5: Sleep and Fatigue Issues Among Loco Pilots**

Sleep quality and fatigue are key issues affecting the performance and satisfaction of loco pilots. In this dataset, 35% of respondents rated their sleep quality as “Average,” and an additional 20% as “Poor,” with 7% describing it as “Very Poor.” This means over 60% experience moderate to poor sleep conditions, which can severely impact cognitive performance, alertness, and overall health. Only 10% reported “Very Good” sleep, while 28% rated it as “Good.” This indicates that quality rest is a rarity among loco pilots, likely due to irregular schedules, night shifts, and operational stress. The data underscores a major occupational health concern, as poor sleep is linked to fatigue-related errors and long-term mental and physical health issues. These findings support the need for Indian Railways to address sleep hygiene through scheduling reforms, rest period enforcement, and possibly even sleep education programs. Considering that fatigue has a direct impact on train safety, these sleep quality statistics are not only an HR issue but also a critical operational and public safety matter. Sleep improvement initiatives could play a central role in enhancing overall job satisfaction, health outcomes, and workplace productivity for loco pilots.



**Fig 5:** Sleep and Fatigue Issues Among Loco Pilots

**CONCLUSION**

This study on job satisfaction among Indian Railway loco pilots in the Guntakal and Vijayawada divisions reveals critical insights into the occupational environment of one of the nation’s most vital transportation sectors. The findings highlight that while many loco pilots appreciate aspects such as job security and salary, significant challenges persist in areas like work-life balance, mental health, organizational support, and promotional opportunities. The demanding nature of the role, coupled with irregular schedules and high responsibility, contributes to physical fatigue and psychological stress. These factors directly influence satisfaction levels, which

in turn can affect performance, safety, and overall organizational efficiency. By focusing on localized divisions, the study provides a granular view of operational and administrative factors influencing morale. Addressing these through well-structured HR interventions, mental health support, improved shift systems, and enhanced communication channels could significantly boost satisfaction. Additionally, recognizing loco pilots’ efforts and offering growth opportunities will further motivate and retain this essential workforce. Ultimately, the research emphasizes that enhancing job satisfaction is not only a welfare concern but also a strategic imperative for Indian Railways. It calls for a holistic, empathetic approach to



workforce management that ensures safety, efficiency, and employee well-being at the core of railway operations.

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