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# Investigating Drivers' Preferences and Evaluating Roadside Rest Areas

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## Abstract
**Developing the roads and rising road rest transportation in the world in one hand, and the length of the roads on the other hands required building rest areas. In order to drivers rest and reduction of accident risk. Therefore, this reach study investigates driver's expectations from the services and possibilities of the rest areas. This study has been done distributing questionnaire among 355 drivers at four rest areas including provinces of Ardebil, Qazvin and Fars. Data has been analyzed by SPSS software. Considering that drivers are the most important users of rest areas, the rest showed that most drivers choose less times. In order to stop in every rest area. The most important reasons of stopping are saying prayers, resting for refreshment places of worship, gasoline station and parking have the most preference among different services, respectively. Meaning fully rest areas cause refreshment, physical and mental recovery and the rising of driver's focus. Most drivers were married and had been 30-39 years old and had diploma degree. The sitting and social places were important for drivers. Considering the views of rest areas the existence of shady trees and season flowers had the most importance. Based on this, it is necessary to encourage the drivers rest in this place. In order to have a rest and refreshment during the trip by finding locations, offering services and suitable designing. Establishing quiet and calm spaces, far from common confusion, in rest areas must be the most important elements in designing these rest areas.**
**Key words:** **Rest Area, Physical Rest, Spiritual Recovery.**

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## Extended Abstract

### Introduction

**A rest area is a designated location along highways intended to provide necessary services for drivers and travelers throughout the country's road network. With the development of roads, transportation services, and an increase in travel, the demand for various facilities and services by travelers has significantly risen. Consequently, the establishment of rest areas to meet the needs of travelers has become increasingly important. Each year, a large number of passengers travel across the national road network, necessitating spaces for bus and truck drivers, as well as passengers, to access essential services during their journeys. Providing welfare services on intercity roads in the form of rest areas is a need that has been addressed from various dimensions, including physical, economic, social, and environmental aspects. Attention to the needs and preferences of drivers can play a crucial role in enhancing the efficiency and design of rest areas. The positive impacts of establishing these rest areas, particularly from a tourism perspective and their significant role in sustainable regional development, along with their direct effects on local residents and road users, sometimes necessitate proactive measures from implementing agencies to establish and support the operation of these facilities. Fatigue and drowsiness-related accidents account for a significant portion of road accidents annually; in various countries, this factor has played a significant role in 10-20% of serious accidents. Internationally, such accidents have consistently been a focus of traffic safety experts, yet in Iran, this type of accident has received less attention.**

### Data and Methodology

**This research was conducted using a survey method, employing a questionnaire to collect data. The questions pertained to general characteristics and travel patterns of drivers, including age, marital status, education level, and employment type. The aim of this section was to gather participants' opinions regarding their priorities for stopping at rest areas. The factors in the design of the questions included demographic characteristics, welfare services, drivers' motivations for visiting, and general inquiries about the interests of visitors. The demographic characteristics factor included four questions regarding marital status, education, occupation, and age. The welfare services factor comprised three sections: cultural, health-related, and general factors. The statistical population consisted of drivers who stopped at rest areas in four specified regions (Meshkinshahr, Manjil, Niyr, and Shiraz). Due to the undefined nature of the statistical population (drivers) in landscape studies, the Mitra Lankford formula was utilized. A portion of the statistical population was considered to lack a specific attribute, with a value of 50%. Based on this formula, the standard deviation was set at ≤0.05. In most landscape studies, a standard deviation of 3 or less is considered, while in this study, the standard deviation was determined to be 2.63. The studied rest areas were located in four geographical positions, including the northwest and southwest of the country, each with different climates. These locations were chosen due to the high availability of drivers to fill out the questionnaire and their placement in busy areas with diverse users, resulting in varied opinions to enhance data variability. The questionnaires were distributed during the Nowruz holiday of 2017 for two weeks, daily during peak hours (12 PM - 5 PM), and a total of 360 questionnaires were collected from the four specified regions by the end of the two-week period.**

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## Results and Discussion

**As defined, the purpose of designing such spaces is to provide temporary accommodation conditions along highways with service, health, recreational, security, and cultural indicators. In assessing the current situation, some of these indicators were either absent or had a weak and temporary presence. Properly located rest areas can significantly alleviate driver fatigue and provide a place for rest, which in turn reduces accidents and increases road safety. Multiple surveys have indicated that the primary reason for stopping at rest areas is to utilize restroom facilities, take short breaks, perform stretching exercises, walk, or access other amenities that travelers seek from information centers for tourism-related information. The highest usage of rest areas occurs during weekends and throughout the summer and fall, particularly on Fridays. As road development has created new needs and demands for various services and facilities by travelers, responding to these needs is essential. A roadside rest area can address these new needs and demands.**

## Conclusion

**The findings from this research are as follows: Since the majority of the driver group consists of married individuals aged between 30 and 39, it indicates that the needs of these groups regarding service and recreational complexes should be given more attention. This study shows that recreational motivation is the most significant reason for drivers' travel; therefore, it is necessary to provide suitable recreational facilities for drivers in service and recreational complexes. A large number of drivers used personal vehicles for travel, which indicates that rest areas should consider services such as parking and repair shops to cater to this demographic. The motivations for drivers to stop at rest areas, in order of importance, include the opportunity to pray, rest to alleviate drowsiness, and parking. Additionally, drivers identified the most important facilities for a rest area as a prayer room, gas station, and parking; thus, to encourage drivers to stop, these facilities need to be appropriately designed and located in roadside rest areas. Drivers expressed a strong preference for shaded trees in rest areas, indicating that more effort should be made to incorporate such trees. It should be noted that married individuals and drivers who stopped for less than an hour placed significant importance on hygiene services in rest areas. Government employees and individuals aged 30 to 39 considered facilities such as parking, gas stations, and repair shops essential. In this regard, the most important facilities and amenities that should be considered in a rest area include service and hygiene facilities. The results indicate that rest areas can significantly impact fatigue relief, physical recovery, mental recovery, and increased concentration for drivers, highlighting the need for further research in this area.**

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