

## **I. RESEARCH PROJECT TITLE**

Improving the Usage of Demand Response Transit Services in Rural Kansas

## **II. RESEARCH PROBLEM STATEMENT**

KDOT administers public transportation programs funded by the Federal Transit Administration and the State of Kansas. KDOT currently supports approximately 180 transit providers covering 99 of the state's 105 counties.

While these public transportation providers could be grouped in several ways, one of the most meaningful ways will be to consider those in two groups, fixed route transit providers and demand response transit providers. There are many demand response type transit services available in Kansas particularly in rural areas where there are no fixed route transportation services available. These types of services mainly serve transportation-disadvantaged groups (elderly, people with disabilities, low income, etc.) and provide an invaluable service to such groups. However, as compared to the cost associated with providing such a service the usage levels remain low for almost all providers. Therefore this project intends to conduct customer satisfaction surveys and also surveys of non-users that could likely be converted to users, with the intention of identifying the problem areas. This will eventually lead to providing recommendations for increasing the usage of these services.

Findings of the study will be particularly helpful in accommodating aging population in rural areas.

## **III. RESEARCH OBJECTIVES**

The main objectives of this proposed project are to conduct customer satisfaction surveys and non-user surveys of selected sets of demand response public transit providers in Kansas and provide recommendations with the intention of improving utilization. Detailed tasks that will be completed in achieving these objectives will be as follows.

- Task 1. Conduct a detailed literature search to see similar studies conducted in other parts of the country.
- Task 2. Identify a candidate set of demand response public transit providers that need to be included in the survey.
- Task 3. Design a survey form for collecting the necessary and relevant information from the transit users and particularly non-users.
- Task 4. Conduct the survey by using the form designed in Task 3. The survey will be conducted among customers and non-users so that all details can be collected.
- Task 5. Analyze the data collected through the customer satisfaction and non-user surveys.
- Task 6. Analyze data for each provider and identify the issues and concerns associated with demand response public transit providers. Identify the reasons for lower usage rates even among transportation disadvantaged groups.

Task 7. Provide recommendations for improving the quality of service of demand response public transit providers in Kansas so that the usage rates could be improved.

Task 8. Document the details of the study and findings in a report.

#### **IV. ESTIMATE OF FUNDING AND RESEARCH PERIOD**

**Research Period:** 18 months from the beginning of the project.

**Funding:** Estimated cost of the project is \$ 80,000.

#### **V. URGENCY AND PAYOFF POTENTIAL**

Mobility and transportation needs of all population groups are important for any transportation agency and a considerable amount of funding is spent on providing such services. It is therefore necessary to get the most out of such services by improving the usage rates. This project is therefore expected to have a high payoff potential.

Additionally, this area has been identified as a priority area of the University Transportation Center as described in the Strategic Plan.

#### **VI. IMPLEMENTATION STRATEGY**

Based on the findings of this project, demand response public transit providers can make changes to their services so that all components of service are meeting the minimum requirements and overall customer satisfaction could be improved, thereby increasing the utilization levels. They can also develop more focused marketing campaigns to make these services more popular.

#### **VII. PROJECT PERSONNEL**

The principal investigator of this project will be Dr. Sunanda Dissanayake (Assistant Professor in Civil Engineering) who has many years of experience in the areas of traffic engineering, safety, crash data analysis and access management related issues. Dr. Bobb Stokes, who has over 25 years of experience in general transportation planning and applied transportation research, will be a co-principle investigator of the project.

In addition, one Graduate Research Assistant will work on this project whose thesis will be focused on this study. One additional UG student will also provide assistance in the project.

#### **VIII. SUBMISSION INFORMATION**

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