

Appendix B

Survey Methodology

SURVEY METHODOLOGY

The survey reported on here for the Intermodal Study was designed with the assistance of the Oklahoma State University's Bureau for Social Research. The Bureau for Social Research has many years of experience in the administration of statistically valid surveys in Oklahoma, including small survey research.

Sample Design/Selection

A stratified sampling approach was selected as most likely to yield representative results. Under the scope of services for the Intermodal Element Study, the overall survey size was specified to be approximately 200 recipients.

A stratified sample is one in which randomized selection is made within subgroups considered to reflect the overall composition of the "population"²⁸ of interest. Stratified sampling assures that the overall sample will represent all important subgroups, even if those groups are relatively small within the population. The following strata comprised the overall sampling frame. The numbers in parenthesis represent the total number of each type within the overall sample of 200.

- Local elected officials, including tribal representatives (70)
- Local economic development authority officials (20)
- Local chambers of commerce (10)
- General aviation airports (8)
- Rural transit systems (27)

Randomized sample selection was conducted within these strata.

In addition to these randomly drawn strata, a number of additional categories or groupings were surveyed on a non-randomized basis. That is, some public and private organizations were regarded as having such a significant role in the intermodal transportation system in Oklahoma that they were added to the sample, without randomized selection. These groups included Oklahoma representatives of the following categories:

- trade associations (11)
- individual freight using firms (16)
- intercity transportation providers (3)
- major metro transit systems (3 - OKC, Tulsa, Lawton)
- freight railroads (6)
- trucking, third party logistics (3PL), freight forwarding firms (8)
- air cargo firms (4)
- public ports (2)
- private ports (1)
- major commercial airports (2 - Will Rogers, Tulsa)
- major port users (2)
- major air cargo users (2)

²⁸ In statistical language, population refers to any target grouping that is to be survey sampled. It does not necessarily refer to population in the sense in which it is used by demographers.

- major rail freight users (3)
- military installation (2)

The complete list of survey recipients is provided in Appendix C which follows.

Questionnaire Design and Content

The survey questionnaires were carefully designed to yield results of interest to the study, while yielding an acceptable response rate. It was felt that a tradeoff between response rate and depth of information would best suit the needs of the study. Accordingly, a series of quantitative (e.g., ranking) and qualitative, or open ended questions, were included in the survey. The latter required the recipient to spend some time thinking about transportation system problems and opportunities in greater depth than would normally be the case with more standard ordinal multiple choice ranking questions.

Two slightly different surveys were developed and sent, depending on the characteristics of the survey recipient. For private sector freight transport providers and users, such as United Parcel, Boeing, the Class I Railroads, specific questions were asked about the potential for Intermodal Logistics Hub development in Oklahoma in the context of their enterprise's business plans.

The following topics were covered in the survey:

- Overview of the Transportation System in Oklahoma
- Transportation System Strengths and Weaknesses
- Goods Movement
- Transportation and the Economy
- Intermodal Logistics Hub Opportunities (selected survey recipients)

Overall, the first version of the survey comprised 23 questions; the second version had 30 questions.

The survey questionnaires are also included in Appendix C.

Stakeholder Interviews

To supplement and follow up on the mailed surveys, more focused person to person interviews were conducted with a target group of some 30 persons. These interviews provided key stakeholders with the opportunity to explore intermodal transportation strengths, weakness, and opportunities in greater depth. Interviews tended to focus on the non-randomized group of survey recipients. Several interviews were also held with persons not included in the mailed survey. Interviews were sought with 30 persons; in total, 24 interviews were held.