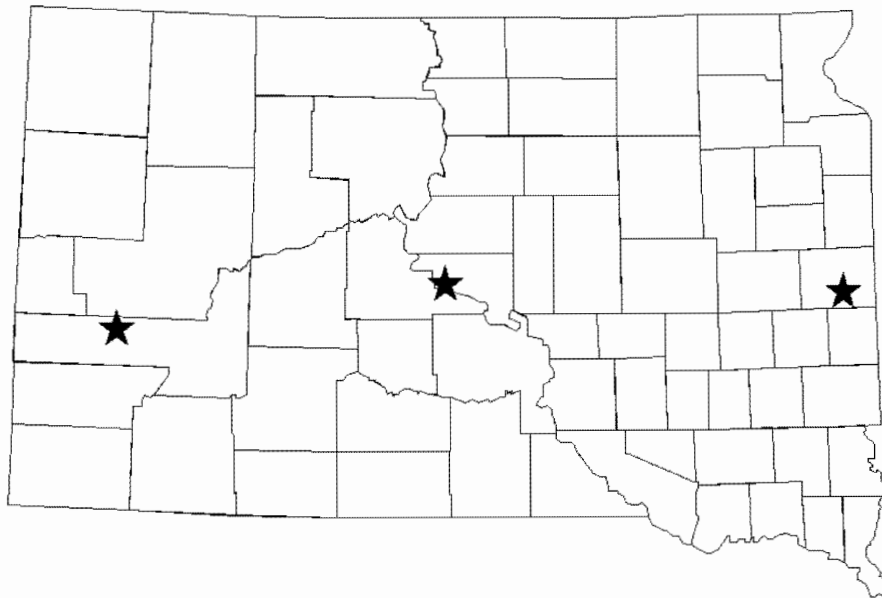**DOT**

Connecting South Dakota and the Nation

SD Department of Transportation
Office of Research

Local Transportation Agency Training and Technical Assistance Needs Assessment

Study SD97-13
Final Report

Room 122
700 East Broadway Avenue
Pierre, SD 57501-2586
(605) 773-3292   **August, 1998**

DISCLAIMER

The contents of this report reflect the views of the authors who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the South Dakota Department of Transportation, the State Transportation Commission, or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

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16. Abstract
This report assesses training needs for the South Dakota Local Transportation Assistance Program (SDLTAP). The results and findings of the assessment are to be used by SDLTAP to better their organization in meeting the needs of their clients. They will also be helpful in conducting an assessment in the future. Three objectives were to be accomplished, including: determine training & technical assistance needs, assess the current and potential role of SDLTAP, and provide documentation to conduct annual evaluations. To accomplish these objectives, various methods were used to gather information. Three focus groups of SDLTAP clientele were held throughout the state in order to gain insight on the quality of SDLTAP's efforts. SDLTAP staff was interviewed to acquire their views on what they would like to learn from the project and what they foresee of them in the future. And finally, a survey was distributed to the SDLTAP clientele and those of the Associated General Contractors (AGC) in South Dakota that were not previously included in SDLTAP's efforts. This gathered the views of the local agencies on how SDLTAP is meeting their needs and provided information on what services would like to be seen in the future.

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Executive Summary

The South Dakota Local Technical Assistance Program (SDLTAP) provides training and technical assistance to state, local and federal transportation agencies, as well as contractors involved in road construction and maintenance. In addition to providing training through formal workshops and informal on-site visits to highway and street departments, SDLTAP offers technical assistance, technical information, and a quarterly newsletter. SDLTAP has been operated cooperatively by South Dakota State University, the South Dakota School of Mines and Technology, and the South Dakota Department of Transportation since 1988.

To more accurately determine its clients' needs, SDLTAP asked the South Dakota Department of Transportation (SDDOT) to conduct the *Local Transportation Agency Training and Technical Assistance Need Assessment* during the summer of 1998. Through a series of focus groups and a mail survey, SDDOT's Office of Research asked officials and staff of state, federal and local agencies for their opinions regarding the quality of SDLTAP's services, agencies' training and assistance needs, and SDLTAP's potential role in satisfying those needs.

A technical panel comprising SDLTAP clients defined three primary objectives for the assessment:

1. determine the training and technical assistance needs (both short and long term) of local and tribal transportation agencies in South Dakota;
2. assess the current and potential role of the SDLTAP in meeting these needs;
3. provide documentation which will allow the SDLTAP to conduct annual evaluations on training and technical assistance needs.

The panel directed that ten tasks be performed:

1. Meet with the project's technical panel to review project scope and work plan;
2. Review and summarize literature pertinent to Local Transportation Assistance Program training and technical assistance needs assessments as well as the role LTAP plays in meeting those needs;
3. Meet with SDLTAP staff and a representative sample of local government and tribal transportation agencies to gather background information for developing a survey to assess training and technical assistance needs;

4. Prepare a technical memorandum which summarizes the information from Task 3 and prepare a draft survey which can be used to identify training and technical assistance needs and determine the current and potential role of the SDLTAP in meeting those needs.

5. Meet with the project's technical panel to review and approve the survey instrument and methods;

6. Conduct the survey using the instrument and methods approved by the technical panel;

7. Analyze the survey results to identify training and technical assistance needs of local government and tribal transportation agencies and recommend the role of SDLTAP in meeting those needs;

8. Provide the necessary documentation which will allow the SDLTAP to conduct annual evaluations on training and technical assistance needs for transportation agencies;

9. Prepare a final report and executive summary of the literature review, survey methodology, findings, conclusions, and recommendations;

10. Make an executive presentation to the SDDOT Research Review Board and the SDLTAP Advisory Board at the conclusion of the project.

These tasks were initiated in May 1998, beginning with preparation of a detailed work plan. Background investigations continued through June, with literature review and three focus groups in Rapid City, Mobridge, and Mitchell, South Dakota. A statewide mailed survey to more than 1300 persons in state, federal, tribal, county, township, and municipal agencies and heavy contractors followed in July, with an overall response rate of approximately thirty percent. Following analysis of results, the study concluded with publication of the final report in August 1998. Presentation to the SDDOT Research Review Board and the SDLTAP Advisory Board occurred on August 20, 1998.

Findings

Useful findings became evident early in the project, during the focus groups. Comments from the 27 participants suggested that:

- Users of SDLTAP's services are generally satisfied with their quality. Predominantly positive opinions were expressed on SDLTAP's:
    - staff competency, friendliness and helpfulness
    - technical assistance
    - training workshops

- newsletter (the *Connection*)
- technical bulletins

- Awareness and use of SDLTAP varies by type of agency. Focus group participants from federal, county, city and state agencies were most familiar with SDLTAP's services and had taken most advantage of them in the past. Township officials and contractors' staff were generally less familiar.

- In spite of differences between organizations, most face common challenges, including:
  - limited staffing
  - budget constraints
  - growing workload
  - rising costs

- Although the three focus groups differed in their estimates of current funding for SDLTAP, they agreed closely on the relative importance of its functions. Typically, participants said they would allocate the following fractions of a hypothetical budget to:
  - formal workshops, 30%
  - on-site visits, 30%
  - technical assistance, 20%
  - newsletter publication, 10%
  - other, 10%

Interviews with SDLTAP staff revealed a good understanding of clients' needs. Staff at South Dakota State University (Ken Skorseth, Lorna Foster, and Sue Grant) and at the South Dakota School of Mines and Technology (Marv Espeland) demonstrated their commitment to helping local agencies and other clients meet their technical and administrative challenges. They also expressed their belief that other clients, particularly in the contracting industry, could benefit from additional outreach. Pat Collins, formerly of the South Dakota Department of Transportation's Training Activity and now (following reorganization) with the Bureau of Personnel, provided valuable advice on the mailed survey instrument.

Findings of the mailed survey confirmed many of the perceptions expressed in the focus groups and staff interviews:

- As had been suggested in the focus groups, the survey showed that county, city and state personnel are most familiar with SDLTAP services and have used them most in the past. Federal and tribal officials are also quite aware, but the relatively small number of responses

from these groups weakens this finding somewhat. Consultants, township officials and contractors appear to be least familiar with the services, and to some extent are unsure whether the services are appropriate to their needs.

- Respondents expressed predominantly favorable opinions of SDLTAP's present services. For every service offered, favorable responses greatly outweighed unfavorable, suggesting that the quality of service generally meets clients' needs.

- Survey responses suggested that training needs vary somewhat by organization and by respondents' positions within their organizations, but many training needs are common to all agencies within the state. Overall, the top twenty training needs identified from analysis of all returned surveys are:
    - blading techniques
    - blade operation
    - snow plow operation
    - culvert installation
    - traffic signs
    - weed & vegetation control
    - first aid
    - (gravel) material properties and tests
    - legal issues
    - culvert design
    - erosion control
    - ditch & drainage maintenance
    - cardiopulmonary resuscitation
    - work zone safety
    - proper lifting and carrying
    - ditching techniques
    - budget preparation and accounting
    - rural plowing and sanding
    - first responder
    - motor grader operation

Survey respondents did not suggest radical changes to SDLTAP's activities. Responses to questions regarding SDLTAP's potential role suggested that some opportunity exists to use computer communication (via E-mail or Internet) to communicate with local agencies and to provide general computer assistance to local agencies. A few respondents said they were interested in contributing articles to the newsletter, and a majority said they would use a catalog describing SDLTAP's services.

In regard to workshop length and location, over 60% of respondents said they prefer workshops of one day duration or less, and 56% said travel distances over 100 miles of travel are unacceptable.

Implementation Recommendations

Based on the findings produced from this study, the researchers offer the following recommendations:

1. *The South Dakota Local Transportation Assistance Program's Advisory Board should consider this study's information regarding transportation agency needs as it recommends training courses.* Emphasis should be given to the types of training identified as greatest needs for most agencies and job positions, but consideration should be also given for limited numbers of presentations of special interest training important to certain segments of SDLTAP's clientele.

2. *The South Dakota Local Transportation Assistance Program should update its mailing list to reflect changes in elected and appointed officials.* During the course of this study, the survey was mailed with address correction requested. Numerous surveys were returned, indicating that regular SDLTAP mailings are not always reaching their intended destination.

3. *The South Dakota Local Transportation Assistance Program should take action to inform township officials and contractors of its existence and services.* In both the focus groups and the mailed survey, township and contractor groups were consistently less aware of SDLTAP's services and had used them less often than other client groups. Possible outreach methods include articles in the *Connection* as well as newsletters published by the South Dakota Association of Towns and Townships and the Associated General Contractors, and presentations to the associations' annual conventions. The articles and presentations should describe SDLTAP's services and explain SDLTAP's policy of no workshop fees.

4. *The South Dakota Local Transportation Assistance Program should publish a summary of this study in its quarterly newsletter.* Participants in focus groups indicated that they would like to be informed of its findings, preferably through the *Connection*.

5. *The South Dakota Local Transportation Assistance Program should continue its efforts to encourage local agencies to coordinate on-site "road show" presentations.* Focus group participants praised the road show program for making training available to entire crews rather than the more limited numbers of persons who can attend formal workshops. To make these on-site visits more efficient, SDLTAP has begun to encourage sponsoring agencies to invite neighboring counties, towns, and other agencies to the presentations. SDLTAP should more actively encourage this kind of cooperation, especially in light of the fact that less than 10% of respondents said they had attended a road show to date.

6. *The South Dakota Local Transportation Assistance Program should explore the possibility of providing training in equipment operation through cooperative arrangements with agencies, contractors, equipment suppliers, and South Dakota's vocational schools.* According to results of the mailed survey, "hands-on" training in equipment operation is a significant training need. Because this type of training requires extensive preparation, it exceeds the capability of SDLTAP alone. Such training may be possible through cooperative efforts with other organizations.

7. *The South Dakota Local Transportation Assistance Program should consider establishing an Internet home page describing its services, listing course schedules, and providing select technical information for access by its clientele.* A significant portion of survey respondents indicated that they have computers in their offices and would use information conveyed by E-mail or other means. Because a home page will become more useful as time goes on and even more SDLTAP clients get Internet access, this recommendation should be considered within one year of this study.

Problem Statement

The South Dakota Local Transportation Assistance Program (SDLTAP) provides training and technical assistance to the South Dakota Department of Transportation (SDDOT) as well as the local and tribal highway and street departments located in South Dakota's 66 counties, 309 municipalities, 8 tribal governments and 957 townships. Assistance is also provided to the many contractors located throughout the state. Often training is delivered through formal workshops that are selected to address the topics most useful to local, tribal, and state transportation agencies. Other SDLTAP technical assistance tasks include providing information services, technology transfer materials, quarterly newsletters, and other worthy publications. Because several years had elapsed since a formal needs assessment was made, more current information was needed to help direct and focus the transportation training and technical assistance programs. Information was also needed to determine the current and projected role of SDLTAP in meeting these needs. A statewide survey of SDLTAP's clientele was needed to identify training, technical assistance and other needs and to assess the level of demand for each need identified.

Objectives

The technical panel directing this study defined three objectives for the work:

Determine Training & Technical Assistance Needs

The first objective was *"to determine the training and technical assistance needs (both short and long term) of local and tribal transportation agencies in South Dakota."* This objective recognized the need to evaluate the training and technical assistance needs of the South Dakota agencies in order to provide the assistance they desire. Both short term (1-2 years) and long term (3-5 years) needs were considered.

The Department of Transportation investigated the needs of many different agencies within the transportation system. These include: local (county, city, township), state (SDDOT, state parks), tribal, and federal (Forest Service, Bureau of Indian Affairs, the U.S. Corps of Engineers) agencies. It had to be taken in to account that each agency may have different areas of interest.

To accumulate the information needed for this project, three different methods were used. First, knowledgeable SDLTAP staff in the area were interviewed. Second, three focus groups were assembled from different areas of the state. Finally, a survey was distributed to local transportation agencies

throughout the state. The interviews and focus groups provided primary, or face-to-face, input whereas the survey was a secondary form of information. All three sources provided information on the quality of services currently provided and what would like to be seen in the future. The information from these methods helped to recognize the needed training, technical assistance, and other services that would be beneficial toward the advancement of each agency.

Assess the Current and Potential Role of SDLTAP

The second objective was *"to assess the current and potential role of the SDLTAP in meeting these needs."* The current role of the SDLTAP in meeting the needs of the transportation agencies was assessed by reviewing present activities being used. It was also evaluated through interviewing SDLTAP staff, focus groups, and the survey. These methods were also used to investigate the potential roles of SDLTAP. By looking at these assessments, it was possible to identify what was being done and how effective the techniques were. This lead to what needed to be done. From there, it was possible to identify the activities that needed to be performed and estimate the resources and costs required to complete them.

Provide Documentation to Conduct Annual Evaluations

The study's final objective was *"to provide documentation which will allow the SDLTAP to conduct annual evaluations on training and technical assistance needs."* After the interview and focus group processes were completed, a survey was compiled for use during the 1998 summer. Following completion of the survey, a revised version was developed based on the comments contained on the first survey and its analyzed results. Information is provided on the best way to conduct the survey and on how to interpret the results. This revised survey will provide a way to evaluate training and technical needs in the future.

Task Description

To accomplish the three stated objectives, the study's technical panel directed that ten tasks be accomplished.

Meet with Panel

Task 1: Meet with the project's technical panel to review project scope and work plan. This was the initial meeting held on May 12th with the technical panel and its purpose was to review the work plan and project schedule. The result of this meeting was a final work plan and the endorsement of the technical panel of its content.

Review and Summarize Literature

Task 2: Review and summarize literature pertinent to Local Transportation Assistance Program Training and Technical Assistance Needs Assessments as well as the role that LTAP plays in meeting those needs. Prior to and following the initial meeting with the technical panel, the research team reviewed current literature pertinent to other states' experience with local needs assessment. The focus was mainly on successful efforts within other state transportation departments. The state of Minnesota had just recently completed a successful study of this type and the report of their findings provided valuable information in the execution of a plan of our own. Near the end of the project, a second phase of literature review was used to aid in the development of the project's final reports.

Meet With SDLTAP Staff and a Representative Sample of Transportation Agencies

Task 3: Meet with the SDLTAP staff and a representative sample of local government and tribal transportation agencies to gather background information for developing a survey to assess training and technical assistance needs. Personal interviews were given to the following SDLTAP staff in order to gain insight on needs assessment: Ken Skorseth, Marvin Espeland, Sue Grant, Lorna Foster, and Pat Collins (Bureau of Personnel). The interview process questioned the staff on topics of the amount of activities used, current strengths and weaknesses of processes in use, current needs and reasons why they are needed, and what needs are expected to develop with trends in industry.

Information was also collected from a representative sample of the client agencies and was done by means of focus groups. The purpose of the focus groups was to help the research team acquire a representative sample view of what was already known about SDLTAP and what would like to be seen in

the future. Three separate focus groups were conducted at locations that would attract clients from all parts of the state. Mobridge, Rapid City, and Mitchell were the selected locations. For each meeting, clients from all types of transportation agencies were invited in order to gather all the different agencies' perspectives.

The format for all the focus group meetings was the same. Mr. David Huft facilitated the meetings and Mr. Toran Kopren and Ms. Virginia Ripley took notes for later reference. Each meeting was also taped and video recorded for future reference if needed. The meeting began with the question, "What does LTAP do?" This was to gain an understanding of what the group already knew about SDLTAP and what services it provides. Then the group was asked about the people who work for SDLTAP and how they present themselves to their customers. From there, the services of SDLTAP were individually addressed to acquire the clients' views on how SDLTAP was performing its services. The attendees were asked if they had used each service, the strengths and weaknesses, the quality, and, if they had not taken advantage of a service, why? After that, the group was questioned on what they would like to see SDLTAP do. Next, the budget of SDLTAP was addressed. The group was asked how much they thought LTAP has for a budget and where did they think the money comes from. The group then was asked to use the dollar amount they estimated and prepare a budget for SDLTAP. Each service SDLTAP provided was listed and the group had to allocate what they thought would be adequate to each area. The general idea was to gain an understanding of the group's thoughts on which services were most important to them.

At the end of the meeting, the group was presented with a draft survey that was to be later used for gathering the statewide agency needs. They were asked if it was missing something and if it was understandable. To close the meeting, the group was asked what they would like to find out about the study after it was completed and how would they like to find out.

The results of the above methods were then used to develop a survey instrument. The research team then used the survey to determine which training and technical assistance services are desired.

Prepare Technical Memo and Draft Survey

Task 4: Prepare a technical memorandum which summarizes the information from Task 3 and prepare a draft survey which can be used to identify training and technical assistance needs and determine the current and potential role of the SDLTAP in meeting those needs. After the completion of the focus groups and interviews, the research team composed a technical memorandum explaining the results. These results were used to draft a survey to assess the needs of the transportation agencies. The survey was structured to help determine the current and potential role of the SDLTAP in meeting the needs of the local agencies.

The whole purpose of the focus groups and interviews was to help with the development of the needs assessment survey. The survey developed had five major categories: General, LTAP's Current Role, Agency Needs, LTAP's Potential Role, and Your Preferences. At the beginning was a short description of LTAP and a set of brief instructions for completion of the questionnaire. The General category gathered information on the person completing the survey. It asked question of the person's agency, position, department size, and years experience. Next was the LTAP's Current Role section. This category found out if the person was aware of SDLTAP. It then stepped through each of the services provided by LTAP and asked the person if he/she had used it. If he/she had, then they were asked to evaluate the service and its quality. After that section came Agency Needs. It consisted of a list of many different topics and asked the person to rate the level of need for each topic in their agency. The LTAP's Potential Role section asked a series of Yes/No questions that were intended to determine the interest in the topics for the future. The section then ended with an open-ended question that allowed the person to provide suggestions to the type of service he/she would like to see. The final section, Your Preferences, addressed the client's preferences in attending a training workshop. It asked what length of time for a training workshop is best, the most convenient season for training, and asked the person to rate each day of the week on how it fits their schedule for attending workshops. The maximum distance a person would travel was also addressed and the person was asked to rate the order of importance of a list of obstacles that discourage workshop attendance. The survey concluded with a space for the person to comment if he/she desires. A copy of the survey is available in Appendix A.

Meet With Technical Panel

Task 5: Meet with the project's technical panel to review and approve the survey instrument and methods. Another meeting with the technical panel was held on June 25th where the panel was supplied with the technical memo and draft survey. They reviewed the survey and offered revisions and comments

to improve its format and content. Their input lead to a final revised survey which was used for the assessment.

Conduct Survey

Task 6: Conduct the survey using the instrument and methods approved by the technical panel. A mail survey was used for distribution. SDLTAP provided a list of transportation agency addresses that they wished to contact. The survey was also sent out to the members of the Associated General Contractors (AGC). Each was mailed an envelope that contained a cover letter, survey, and postage-paid return envelope. Multiple surveys were sent to highway superintendents for them to distribute within their agency. The agencies were also advised to make copies of the survey if they desired. They had three weeks to return their survey. A follow-up mailing was sent out halfway through the response period to try and obtain a better response rate. The survey was mailed at the beginning of July.

Analyze the Survey Results

Task 7: Analyze the survey results to identify training and technical assistance needs of local government and tribal transportation agencies and recommend the role of SDLTAP in addressing these needs. As the survey results returned, they were entered into a Microsoft® Excel spreadsheet where they could be analyzed. The data was analyzed with a software package called Knowledge Seeker which enabled us to look at averages, standard deviations, and significant findings. With the processed information, it was possible to plot graphs and charts. This allowed for identifying the training and technical assistance needs of the many different transportation agencies.

The newly compiled data helped to assess the current services of SDLTAP. By using the information received, SDLTAP can make improvements in weaker areas. With the survey results, new services can be developed by SDLTAP and old services can be improved to reach out to the training and technical needs of the different agencies.

Provide Documentation to Conduct Annual Evaluations

Task 8: Provide the necessary documentation which will allow the SDLTAP to conduct annual evaluations on training and technical assistance needs for transportation agencies. At the completion of this project, a final revised survey form was made available for future use. It is a form of the first survey revised from the technical panel comments and from the analysis of its results. Information on how to use

the survey is also provided to inform future users on how to distribute the survey and also how to correctly analyze the results.

Prepare Reports

Task 9: Prepare a final report and executive summary of the literature review, survey methodology, findings, conclusions and recommendations. The research team prepared and submitted to the study's technical panel a draft final report and a draft executive summary. The panel's review comments were addressed in the final versions of these documents, to be delivered by August 31, 1998. Reports were prepared in accordance with the Department's guidelines for research reports.

Executive Presentation

Task 10: Make an executive presentation to the SDDOT Research Review Board and the SDLTAP Advisory Board at the conclusion of the project. The research team prepared and offered an executive presentation at the August 1998 meeting of the Department's Research Review Board and at the SDLTAP Advisory Board meeting. Presentation materials, in the form of a Microsoft® Power Point presentation, are available to the Department for future use.

Findings

Focus Group Results

The responses of focus groups were very similar among the three areas. Each group was able to name the services provided by SDLTAP. Group members were pleased with the efforts and quality of SDLTAP's services. The groups described the SDLTAP staff as very helpful and easy to talk with. If staff were unable to answer an inquiry, they would then put in great effort to find an answer. The groups were very appreciative of the training workshops and road shows conducted by SDLTAP. They said the information was valuable and the programs were excellent in structure. Many attendees stated that some of the obstacles that prohibited attending these activities were time and money. The groups also complimented the newsletter. They felt it contained great information and many of them kept a reference library of them. Each group agreed that the technical assistance provided was without a doubt accurate and excellent to use. The same views were presented on the literature and videos of SDLTAP's technical library.

The groups did express some specific areas of training that they would like to see, including:

- people skills
- budgeting
- survey/staking
- bookkeeping
- legal issues
- basic roads and highways for elected officials
- snow and ice control
- bridge maintenance
- weed control
- interviewing

Participants suggested that a close tie be made with the Vocational Technical Institutes in the state to have courses available to train employees. Also, there were suggestions that SDLTAP should try to involve contractors more in its program.

When each group was assigned the task of allocating SDLTAP's budget, all wanted to place the most money into training, road shows, and technical assistance. It was a strong consensus that these services were the most valuable to SDLTAP's clients.

When presented with the draft questionnaire, most found it adequate. Adding contractors to the agency list was suggested, as was adding a basic roads and highway for elected officials course in the agency needs section. When the study was completed, everyone agreed that they would like to see some sort of summary of the results. They agreed that it would be good to have it published in the SDLTAP newsletter.

Interview With SDLTAP Staff

An interview was arranged in Brookings for the research team to meet with Ken Skorseth, Sue Grant, and Lorna Foster. Their consensus was that SDLTAP plans to continue along its present course. At the completion of this project, they will work to meet the needs of their clients based upon the results. They

were quite eager to see what type of results come from the questionnaire. Ms. Grant did provide a list of questions that SDLTAP would like to have answered.

An interview was also conducted by phone with Marv Espeland. Mr. Espeland said he would like to see SDLTAP reach out to a bigger area and become involved with industry. He felt that most agencies are very supportive of SDLTAP and its efforts to help its customers. Mr. Espeland said he would also like to see SDLTAP become more involved with contractors and the Associated General Contractors (AGC).

Finally, the research team met with Pat Collins of the Bureau of Personnel's Training Activity. He suggested major revisions in the Agency Needs section of the survey. His advice was to make the various needs listed more precise. He said that if the list was too broad, there would be a good possibility that the desired need of the agency would not be met.

Survey Results

The survey and its accompanying cover letter are found in Appendix A.

A. Survey Response

Of the 1399 surveys mailed out to SDLTAP clientele, 427 were returned by the due date of July 17th. Fourteen more came in after analysis had begun. Three of the surveys were completely blank containing only comments, making the number of surveys analyzed with Knowledge Seeker 424. To make analysis easier, some of the position and agency entries that were written in (rather than checked on the survey form) were converted to a category that closely approximated it. Table 1 shows these conversions.

Table 1: Changes To Position And Agency Entries.

Entry	Changed to
clerk, treasurer	staff
finance officer, civil defense director, attorney, appointed official	other
public works director, division foreman, executive director, chairman, training, public works administrator, owner, administrator, safety, human resources	supervisor
supplier	contractor

Figures 1 and 2 show the various agencies and positions of the returned responses. A ??? indicates that the client left the entry blank. All of the graphs that follow tell how many people responded to each answer.

Agency Breakdown

Label	Value	Percent
???	1	0.2%
State	36	8.5%
Contractor	21	5.0%
City	98	23.1%
Consultant	7	1.7%
Federal	8	1.9%
Township	125	29.5%
County	127	30.0%
Tribal	1	0.2%
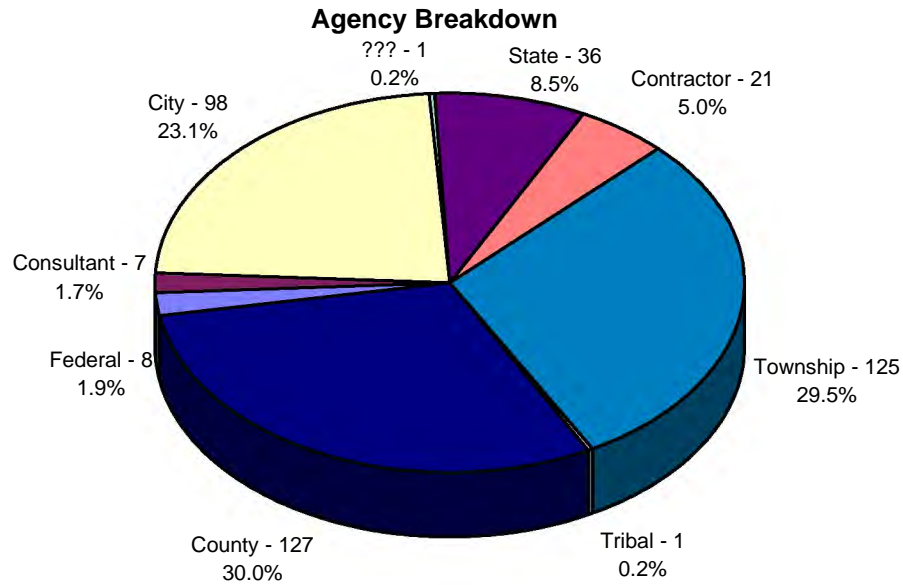
Figure 1: Agency Breakdown

Position Breakdown

Label	Value	Percent
Elected	136	32.1%
Engineer	45	10.6%
Equip. Op.	15	3.5%
Other	20	4.7%
Staff	41	9.7%
Superintendent	80	18.9%
Supervisor	82	19.3%
???	5	1.2%
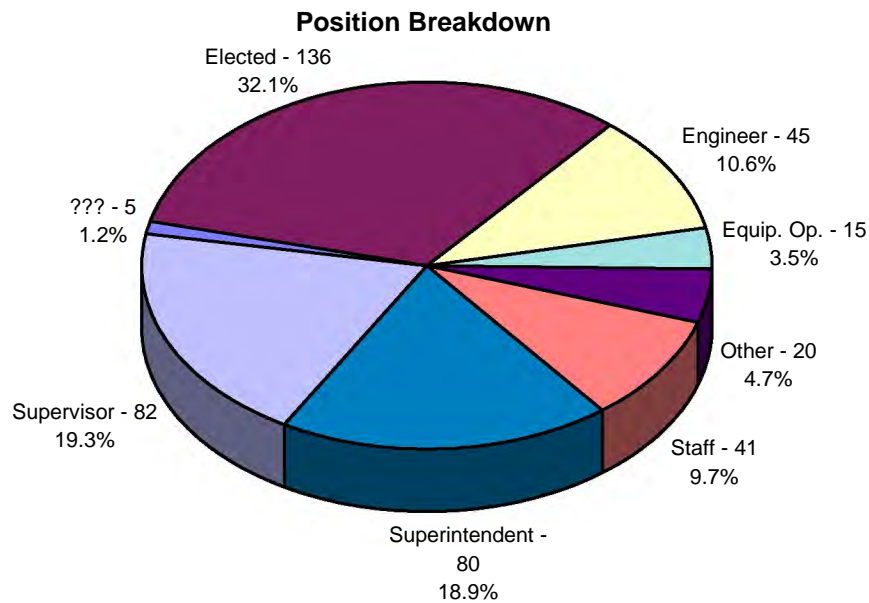
Figure 2: Position Breakdown

A majority of the agencies were either very small or rather large. Figure 3 shows the sizes of agencies filled out by the clients.
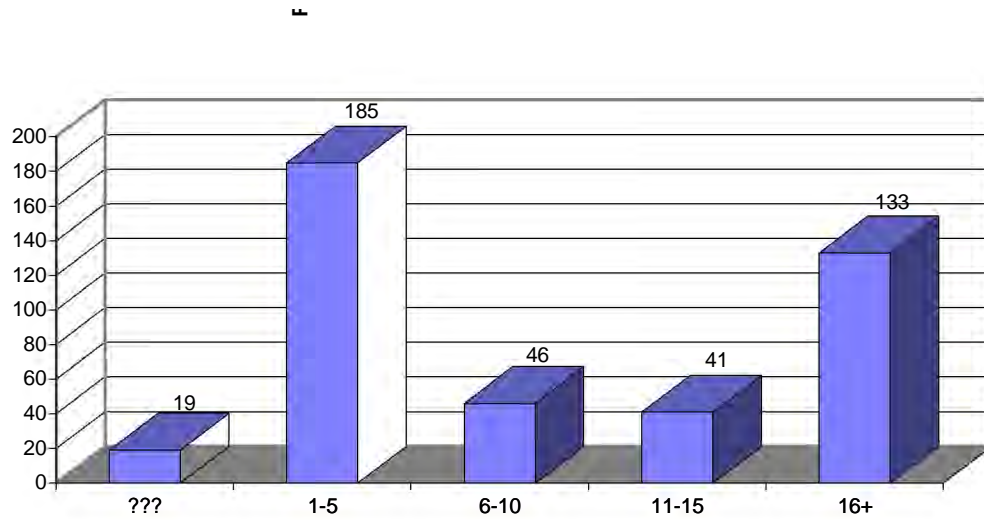
Figure 3: Size Of The Clients' Agencies

The average number of years in the present position was 10.4, with values ranging from 0.5 years to 51 years. The average number of total years of related experience was 19.4, and the range from 0.5 years to 70 years.

B. LTAP's Current Role

About three-fourths of the respondents were aware of SDLTAP's existence. A total of 308 people responded as knowing of LTAP existence, whereas 103 people were not aware of it. Thirteen people did not answer. Figure 4 illustrates the total responses and also has an agency breakdown of their awareness of LTAP. The one person who did not mark an agency is not shown in the following series of graphs but is represented in the totals.

Not all clients take equal advantage of SDLTAP's services. The most used service was the training workshop having 150 people responding as attending at some time. The use of technical materials came next with 132 responding 'yes,' followed by 57 as attending a road show and 32 using the on-site technical assistance. Figures 5-8 show the results, each with a breakdown by agency.

Do you know that LTAP exists?

Agency	Yes	No	???
City	73	25	
Consultant	5	2	
Contractor	10	11	
County	106	15	6
Federal	8		
State	32	4	
Township	73	45	
Tribal	1		
Total	308	103	
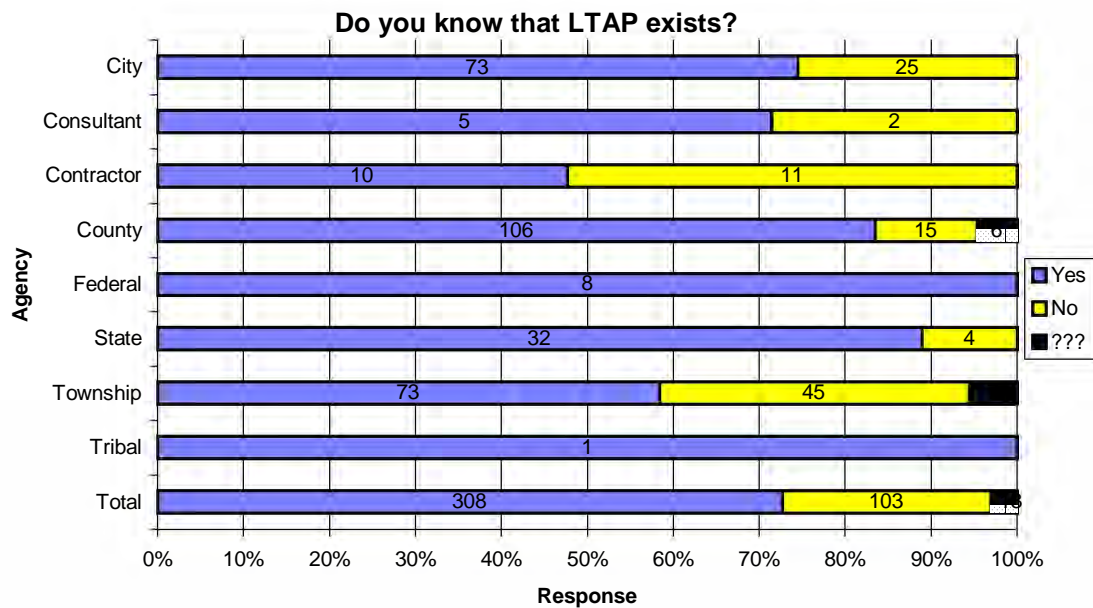
Figure 4: Agency Awareness Of SDLTAP

Attended Workshop?

Agency	Yes	No	???
City	40	58	
Consultant	2	5	
Contractor	3	17	
County	64	58	
Federal	6	2	
State	18	18	
Township	16	108	1
Tribal	1		
Total	150	267	
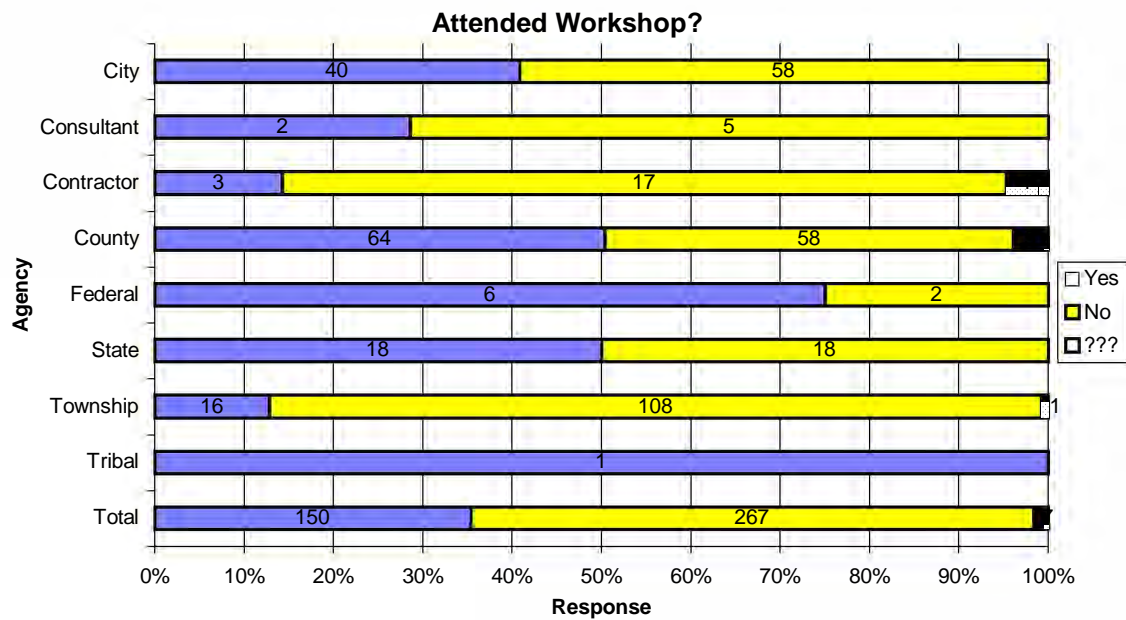
Figure 5: Number Of People Who Have Attended A Workshop.
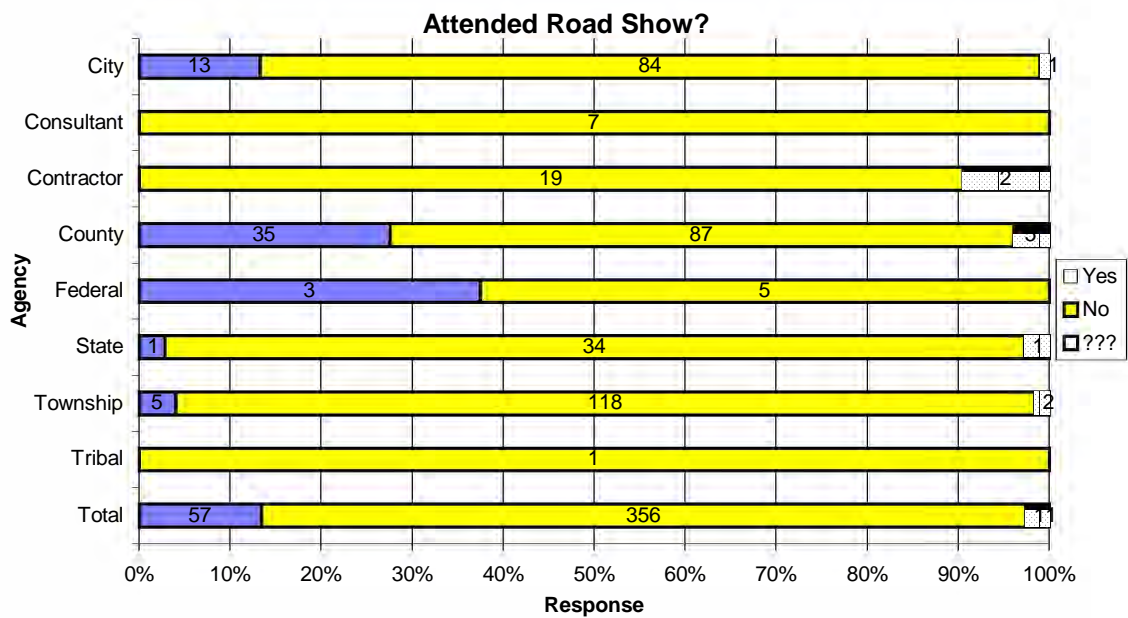
Attended Road Show?

Figure 6: Number Of People Who Have Attended A Road Show.

Used Technical Materials?
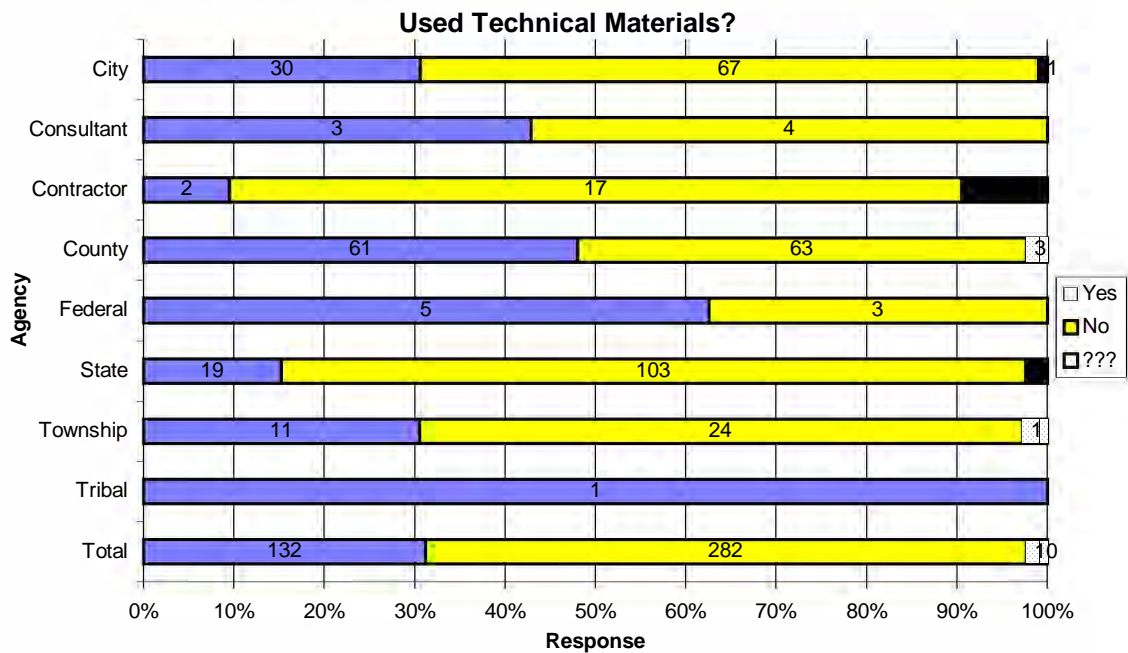
Figure 7: Number Of People Who Have Used Technical Materials.

Used On-Site Technical Assistance?

Agency	Yes	No	???
City	7	90	1
Consultant		7	
Contractor		19	
County	22	102	
Federal	1	7	
State		35	1
Township	2	121	2
Tribal		1	
Total	32	383	
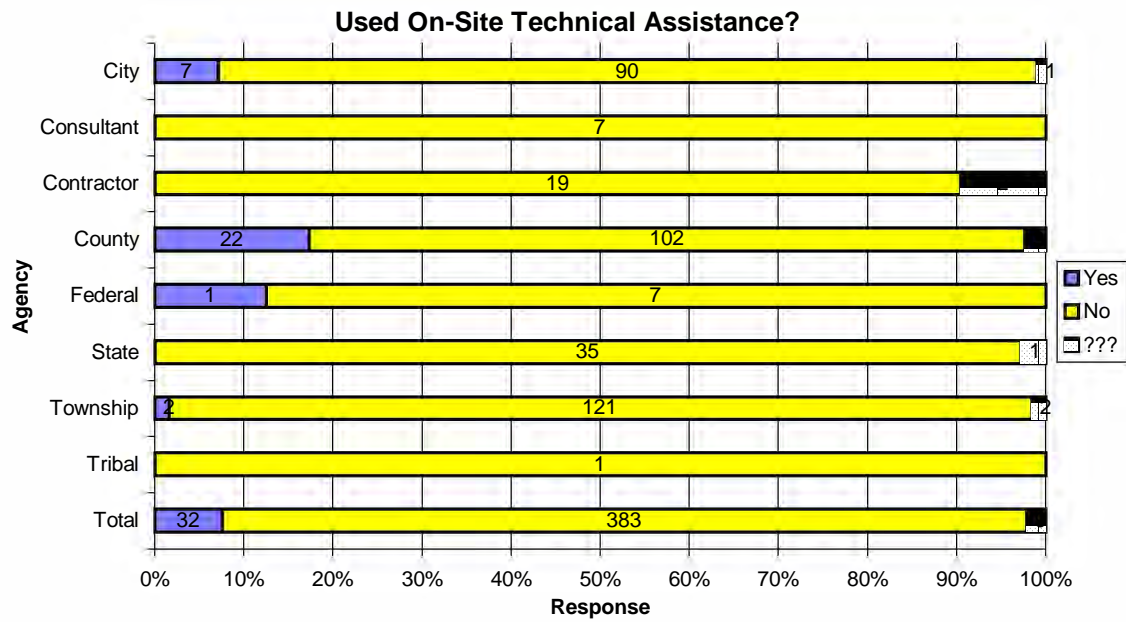
Figure 8: Number Of People Who Have Used On-Site Technical Assistance.

Receive Newsletter?

Agency	Yes	No	???
City	67	30	1
Consultant	3	4	
Contractor	8	11	2
County	97	27	3
Federal	8		
State	33	3	
Township	77	44	4
Tribal		1	
Total	293	121	10
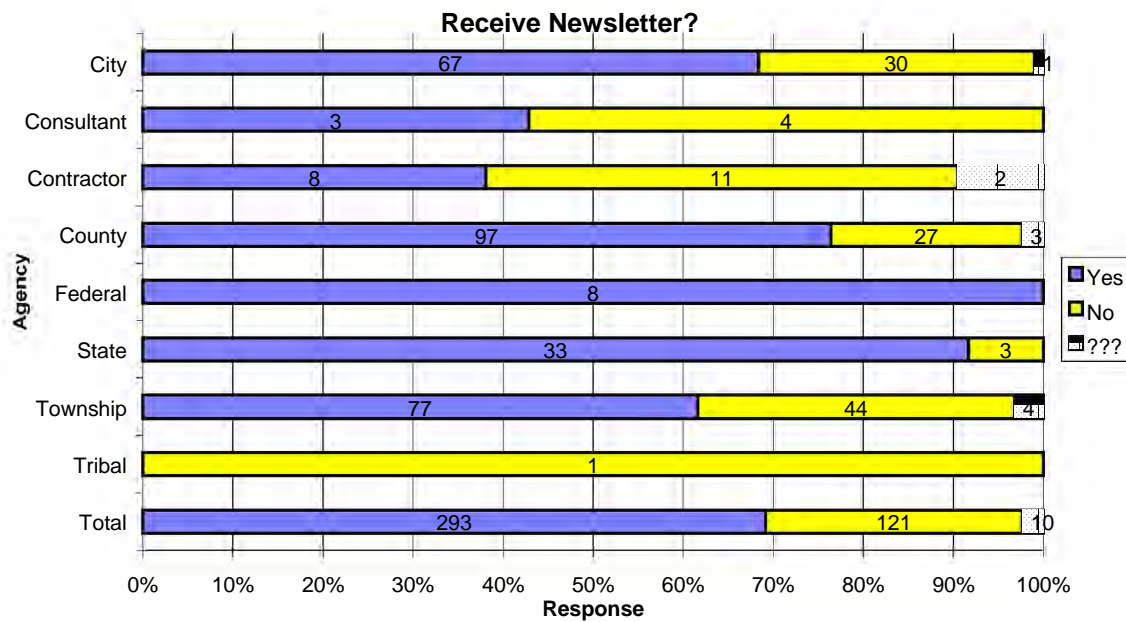
Figure 9: Do You Receive SDLTAP's Newsletter?

Of those who responded as attending a workshop, all but one of them rated "Useful Information" as OK or higher. There was one fair rating. The majority of them marked it as excellent or as good. The same was true for "Current Information" (one poor rating), "Instructors" (two fair ratings), and "Visual Aids" (one fair rating). "Overall Quality" followed this same pattern only having two fair ratings.

No one gave a rating of below an OK for "Useful Information", "Current Information", "Instructors", and "Overall Quality" in the Roadshow section. Here too the majority of ratings were excellent or good.

All of those who had used LTAP's technical materials rated "Useful Information" as OK or better. Once again, the majority marked good or excellent. "Current Information" was the same but with only two fair ratings and one poor rating. "Timeliness" and "Overall Quality" continued along the same pattern having all OK or better ratings with a majority of excellent and good marks.

In the on-site technical assistance section, the number who had used the service was rather low. But, all of those who had taken advantage of the service rated "Useful Information," "Timeliness," and "Overall Quality" as good or excellent. "Current Information" was the same except it had one OK rating.

As shown in the charts, contractors and consultants are not using SDLTAP's services as much as the rest of the agencies. But, there is still room for improvement for all of the agencies. The content and quality of all the services above appeared to be very good by all agencies.

The SDLTAP newsletter, *The Connection*, was received by 293 of the responders and 121 said they didn't receive it. Ten did not answer. Figure 9 shows these results and has an agency breakdown. The newsletter was received personally by 98 responders and through the office by 189 people. This response is somewhat surprising, because the vast majority of surveys were addressed to persons on SDLTAP's regular mailing list.

Figures 10 and 11 illustrate how applicable the newsletter is and the amount read by the responders, respectively. Keep in mind that "???" means a blank entry and includes the people who answered "no".

Only 19 people found the newsletter never applicable and a good majority of the responders read all of the newsletter. The overall quality of the newsletter was rated favorably. Only one person rated it poor

and six rated it fair. The other 271 responses had a mark of OK or better with 157 as good, 76 as excellent, and 38 as OK.
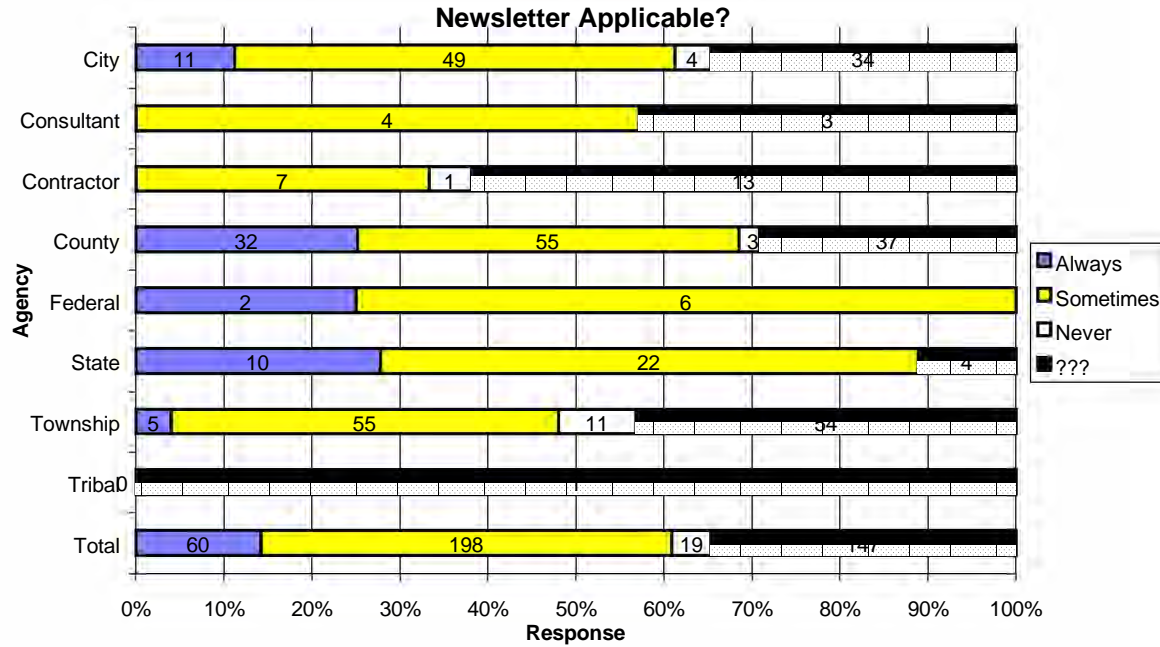
Figure 10: Do You Find The Newsletter Applicable To Your Work?
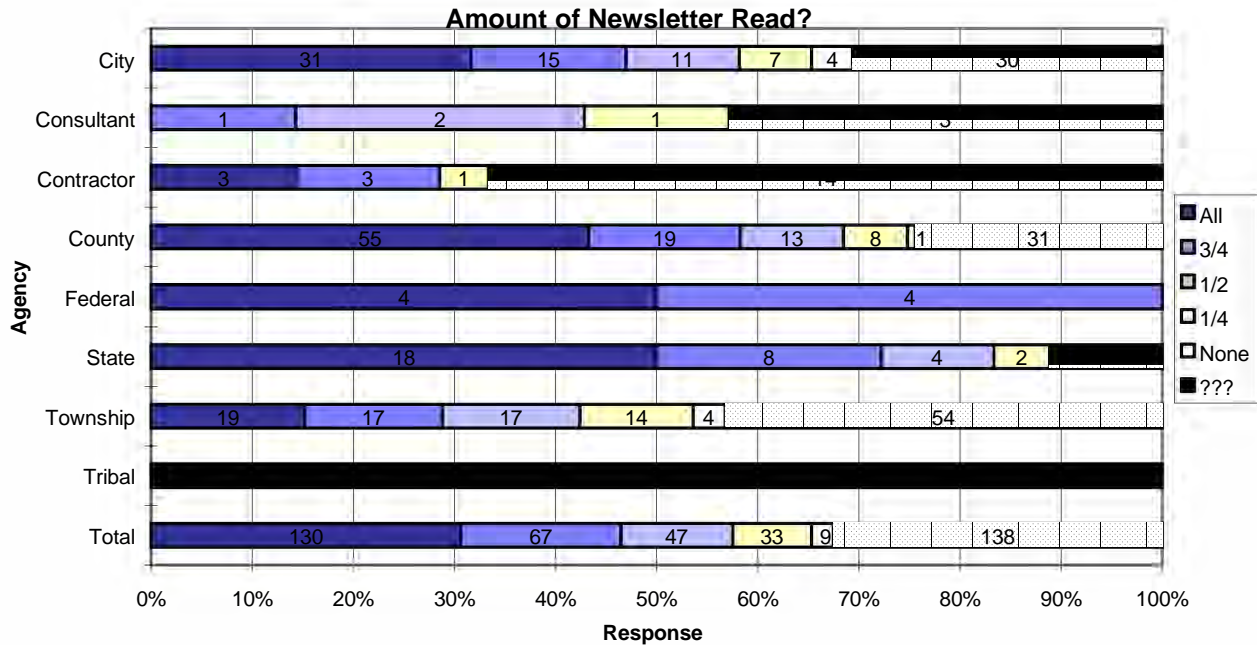
Figure 11: How Much Of The Newsletter Do You Read?

Figures 12 and 13 show the results for special bulletins. Only 34 people marked it as never applicable, and a majority of responders read the entire publication. The overall quality was rated very good. Only 2 rated it poor and 6 rated it fair. The remainder had 150 good, 61 excellent, and 68 OK.

Special Bulletin Applicable?
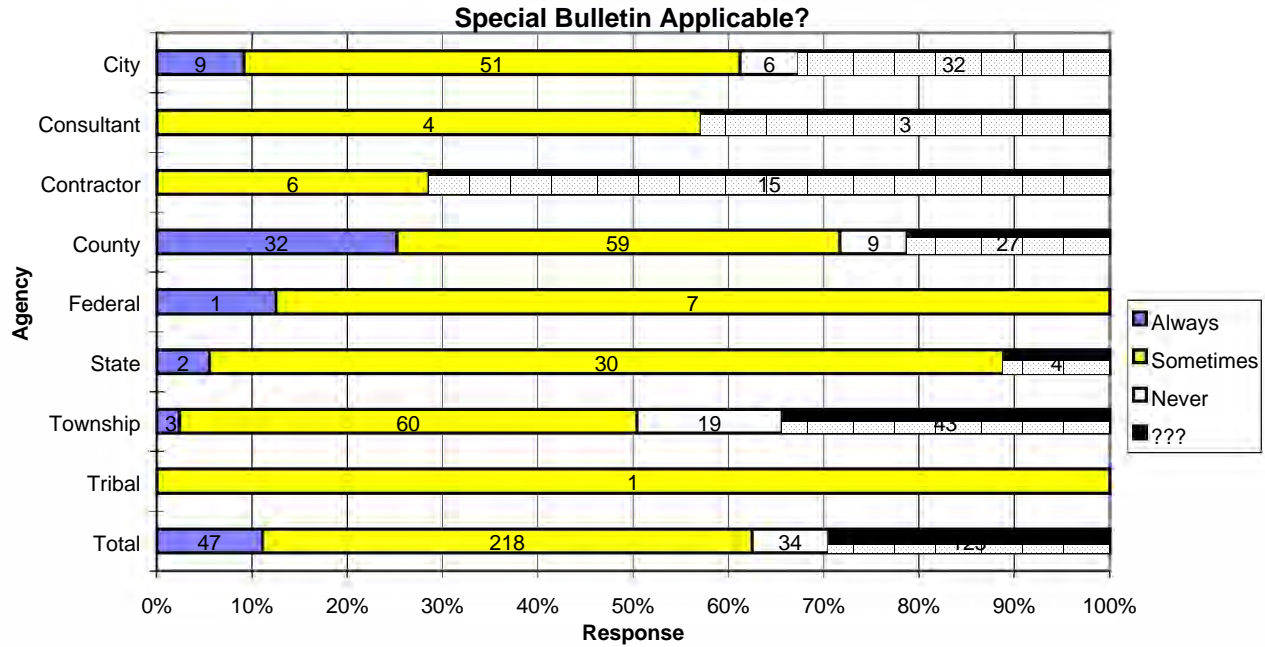
Figure 12: Do You Find The Special Bulletin Applicable To Your Work?

Amount of Special Bulletin Read
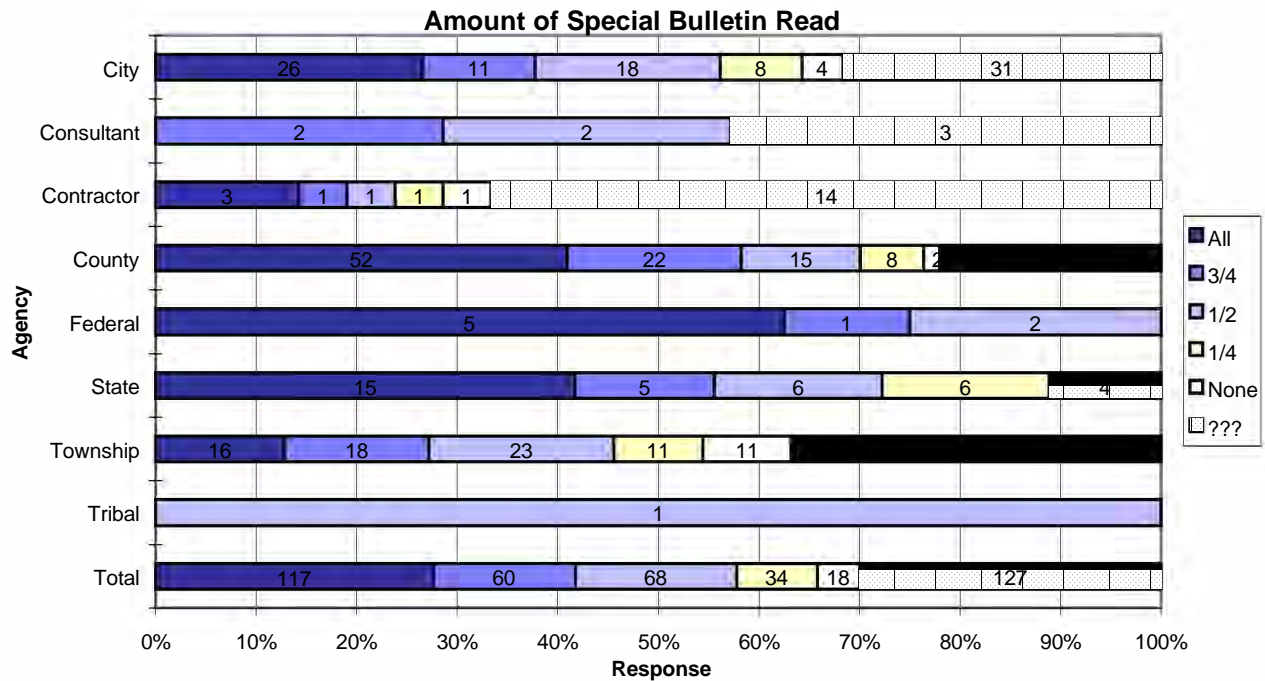
Figure 13: How Much Of The Special Bulletin Do You Read?

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Figure 14 and 15 show the number of times per year that clientele use LTAP's services. Figure 14 shows the response breakdown and Figure 15 shows the average times per year a LTAP service is used. As you can see, the services available to the clients are not used that frequently.
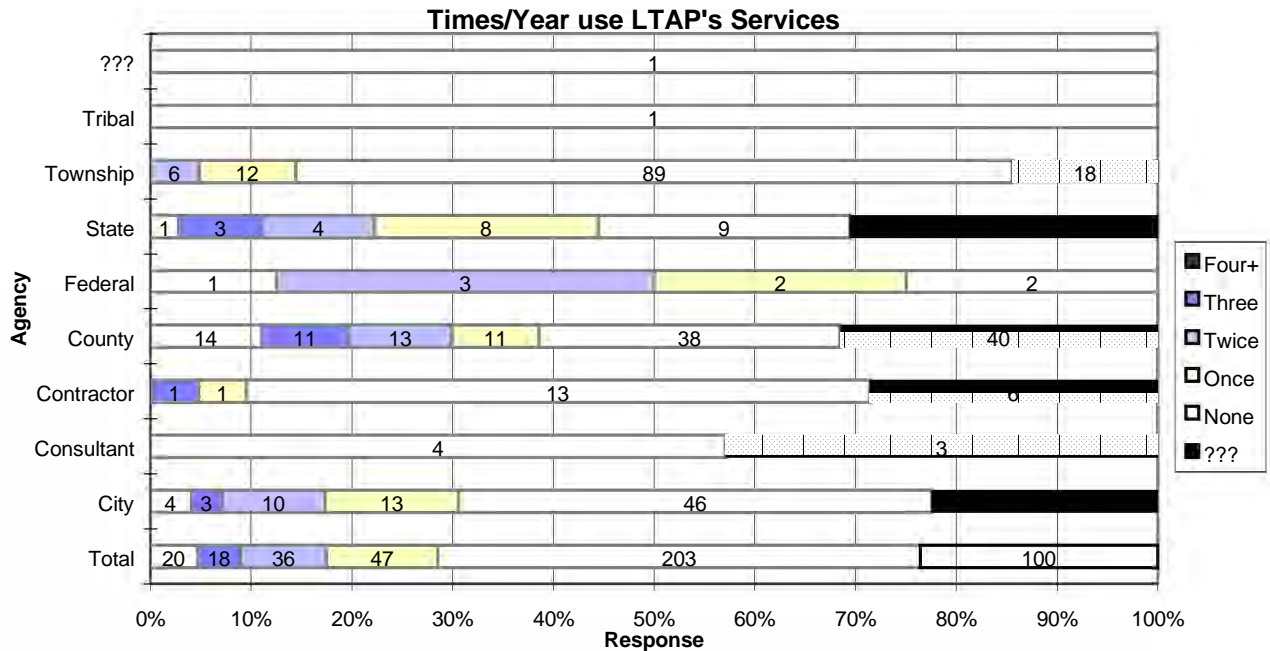
Figure 14: How Many Times A Year Do You Use LTAP's Training And Technical Services?
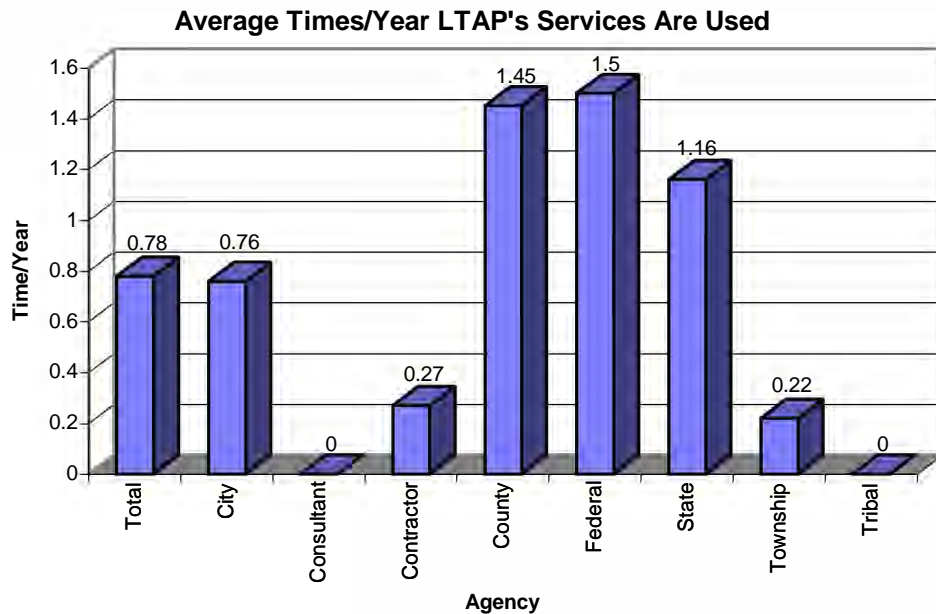
Figure 15: Average Times Per Year LTAP Services Are Used.

C. Agency Training Needs

To analyze the results from the agency needs section, each of the possible responses was given a numeric value. High need was valued at 3, medium at 2, low at 1, and no need at 0 so an average level of need could be calculated. Thus, averages ranged from 0 (no need) to 3 (high need).

In addition to the needs listed on the survey form, respondents suggested several "other" topics, including:

- high traffic rutting resistant overlays (asphalt pavements)
- asphalt patching
- snow removal (gravel roads)
- pull shoulders (gravel roads)
- materials (gravel roads)
- gravel road maintenance
- subbase (gravel roads)
- shoulder & ditch maintenance (gravel roads)
- culverts (bridges)
- city banding (winter maintenance).

The following three charts show the overall results of each agency need listed on the survey.

Pavements, Roads, & Equipment Needs

Topic & Number of Responses (vertical axis), values:

- Striping & Painting Equipment - 316: 0.57
- 0.41
- Asphalt Recycling Machine - 314: 0.51
- 0.67
- Mud Jack - 312: 0.39
- 0.7
- Aerial Bucket Truck - 315: 0.54
- 0.53
- Dozer Operation/Maintenance - 314: 0.84
- 0.91
- Asphalt Distrib. Calibration/Maint. - 318: 0.89
- 1.48
- Front End Loaders - 319: 1.28
- 1.12
- Trucks & Attachments - 316: 1.16
- 1.09
- Load, Lash, and Unload Equip. - 316: 1.05
- 1.45
- Equipment Safety Inspection - 320: 1.42
- 1.35
- Commercial Driver's License - 324: 1.28
- 1.25
- Geotextiles - 303: 1.04
- 1.24
- Utility Cuts - 305: 1.09
- 1.23
- Pavement Subsurface Drainage - 306: 1.1
- 1.05
- Pavement Management Systems - 310: 1.04
- 1.88
- Materials Properties & Tests - 327: 1.59
- 1.88
- Dust Control - 331: 1.39
- 0.54
- Paver Operations - 302: 0.41
- 0.56
- Concrete Surface Repairs - 306: 0.6
- 0.5
- Concrete Inspection & Testing - 306: 0.53
- 0.48
- Pothole Repair - 328: 1.37
- 1.17
- Slurry Seals - 307: 0.69
- 1.08
- Chip Seal Materials - 317: 1.22
- 1.2
- Asphalt Materials & Mix Design - 313: 0.92
- 0.88
- Asphalt Pavement Design - 309: 0.84
- 0.94
- Asphalt Pavement Laydown - 319: 1.03

Horizontal axis: 0, 0.5, 1, 1.5, 2, 2.5, 3

0 - No need 1 - Low need 2 - Medium need 3 - High need

Figure 16: Pavements, Roads, And Equipment Needs
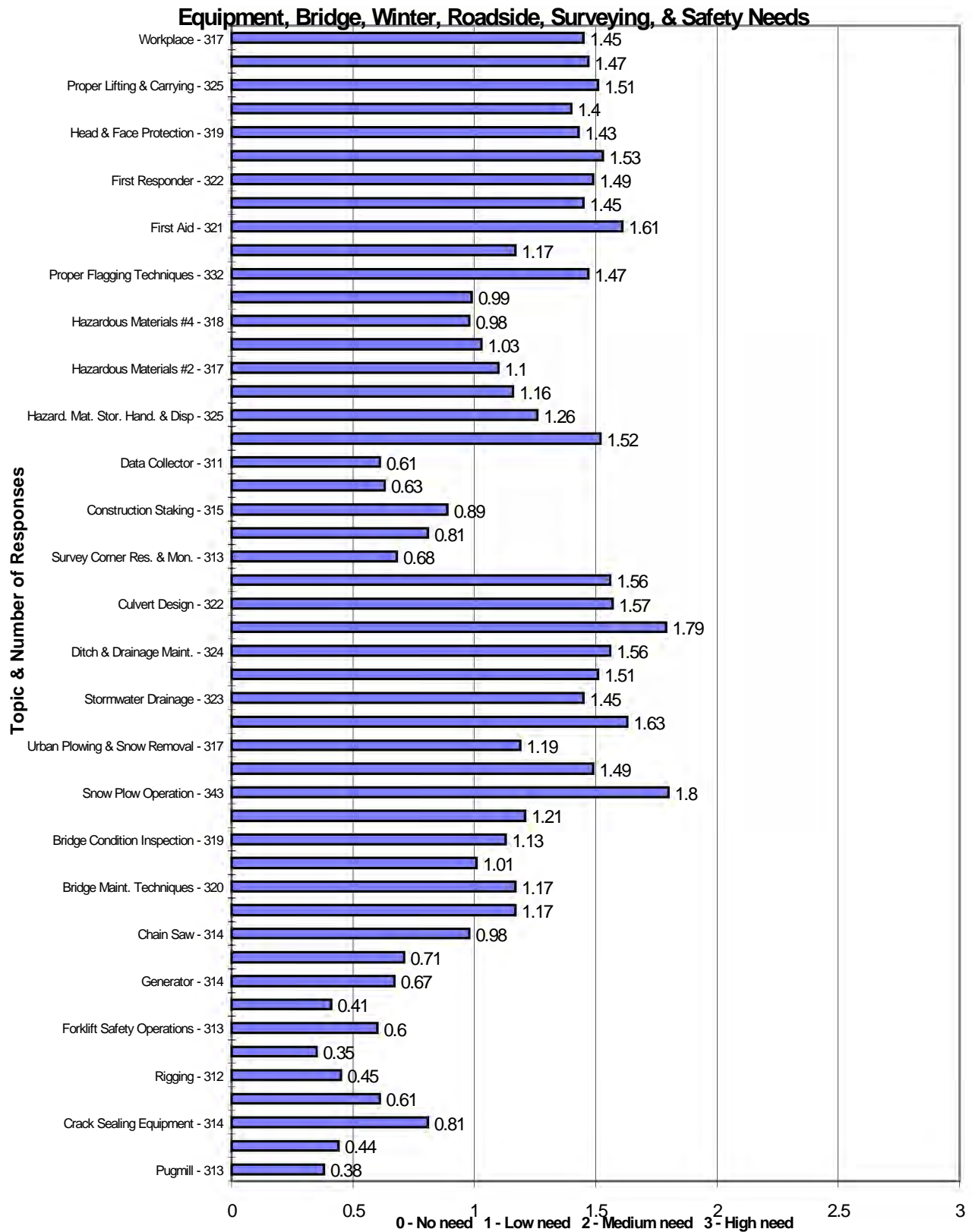
Figure 17: Equipment, Bridge, Winter, Roadside, Surveying, And Safety Needs

Traffic & Management/Planning Needs

Topic & Number of Responses	Value
Public Relations for Local Off. - 321	1.41
Geographic Info. Systems - 314	0.99
Intelligent Trans. Systems - 316	0.97
Hwy Specifications - 312	1.2
Enviro. Issues in Trans. - 319	1.15
Metric Conversion - 313	0.88
Rds & Hwy Basics for Elected Off. - 327	1.44
Legal Issues - 313	1.57
Budget Prep & Accounting - 322	1.51
Communication Skills - 315	1.48
PC's & Applications - 315	1.32
Drug/Alcohol Detection - 322	1.3
Success. Super. for Local Rd Super. - 320	1.38
Fund. of Transportation Planning - 317	1.13
Tort Liability - 319	1.36
Travel Forecast. for Local Rd Sup. - 309	0.72
Highway Capacity Analysis - 314	0.88
Warrants in Signs & Signals - 320	1.03
Safety Elements in Road Design - 316	1.2
Railroad/Hwy Grade Crossings - 316	0.95
Traffic Signal Design & Op. - 317	0.83
Geometric Design - 315	0.8
Street & Hwy Lighting - 317	0.83
Pavement Markings - 322	1.23
Traffic Signs - 333	1.74
Traffic Engineering - 217	1.08

0 - No need   1 - Low need   2 - Medium need   3 - High need

Figure 18: Traffic & Management/Planning Needs

Figure 19 shows the top 20 overall agency needs. The gravel roads (blade operation, blading techniques, and materials, properties, and tests) and roadside maintenance (culvert installation, weed & vegetation control, culvert design, ditch & drainage maintenance, erosion control, and ditching techniques) categories each have many needs that are in the top 20.

Top 20 Overall Agency Needs

Topic & Number of Responses	Value
Blading Techniques - 348	1.88
Blade Operation - 348	1.88
Snow Plow Operation - 343	1.8
Culvert Installation - 338	1.79
Traffic Signs - 333	1.74
Weed & Vegetation Control - 335	1.63
First Aid - 321	1.61
Materials Properties & Tests - 327	1.59
Legal Issues - 313	1.57
Culvert Design - 322	1.57
Erosion Control - 324	1.56
Ditch & Drainage Maintenance - 324	1.56
CPR - 320	1.53
Work Zone Safety - 328	1.52
Proper Lifting & Carrying - 325	1.51
Ditching Techniques - 325	1.51
Budget Prep & Accounting - 322	1.51
Rural Plowing & Sanding - 331	1.49
First Responder - 322	1.49
Motor Grader Operation - 331	1.48

0 - No need   1 - Low need   2 - Medium need   3 - High need

Figure 19: Top 20 Overall Agency Needs

The following series of charts shows the top 20 needs of each agency. After some of the agency listings is a position breakdown of desired needs at the same level. The tribal agency is the only one not represented below because only one response from that agency was received. Thus, a good representation of their needs could not be accurately made. Only agency positions that had more than 3 responses are represented below. Each chart has a different scale which helps to better distinguish between the different average level of needs. The top 8 are listed for each agency position represented.

Cities

Figures 20 through 24 show the top city agency needs. A lot of the highest rated needs at the city level are in the safety and asphalt pavements categories. Pothole repair (1.88), snow plow operation (1.75), and first aid (1.75) were the three highest rated needs. City elected officials and supervisors showed the highest need in the safety category whereas engineers saw the most need in the general pavements section. Superintendents had needs in several categories.
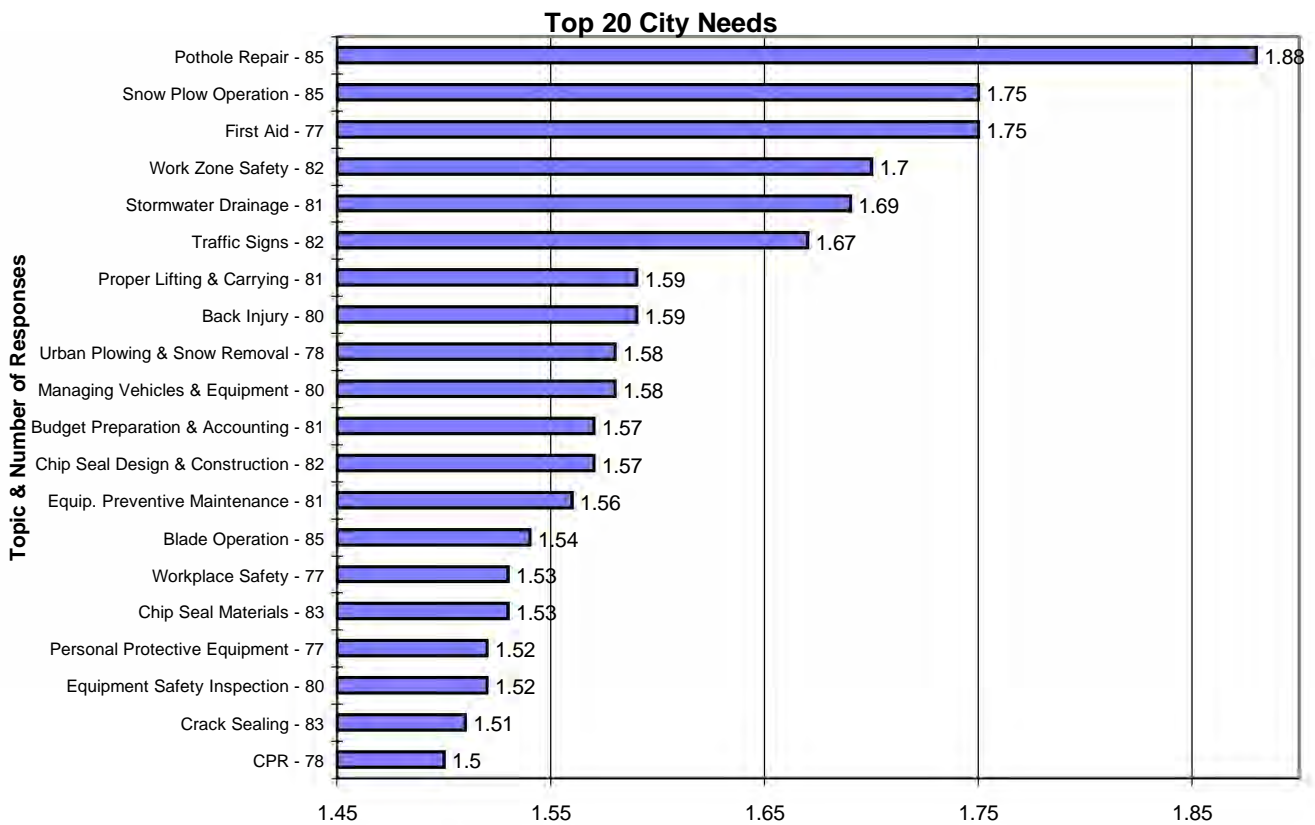
Figure 20: Top 20 City Needs

Top 8 City Elected Official Needs

Topic & Number of Responses	Value
Proper Lifting & Carrying - 11	1.91
Workplace Safety - 10	1.8
CPR - 10	1.8
Back Injury - 11	1.73
Head & Face Protection - 10	1.7
Pothole Repair - 13	1.69
Traffic Signs - 12	1.67
First Aid - 9	1.67
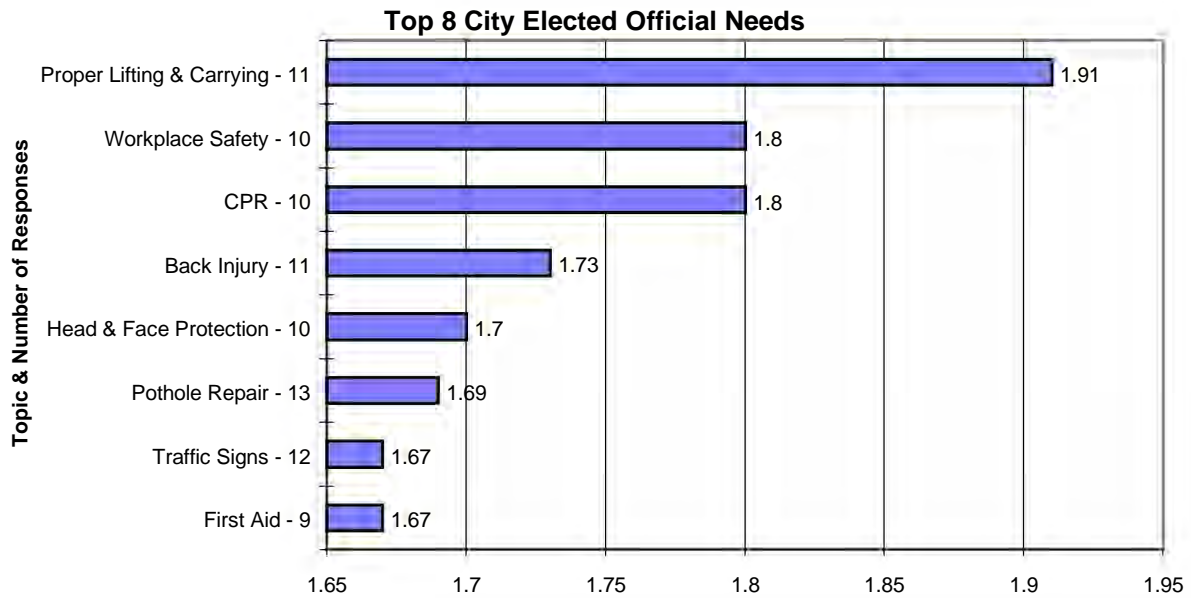
Figure 21: Top 8 City Elected Official Needs

Top 8 City Engineer Needs

Topic & Number of Responses	Value
Pavement Condition Surveys - 14	2.29
PMS - 14	2.21
PC's & Applications - 13	2.15
Soil Stabilization - 14	2.14
Pavement Subsurface Drainage - 14	2.14
Geographic Information Systems - 13	2.08
Traffic Signal Design & Operation - 14	2.07
Pavement Markings - 14	2.07
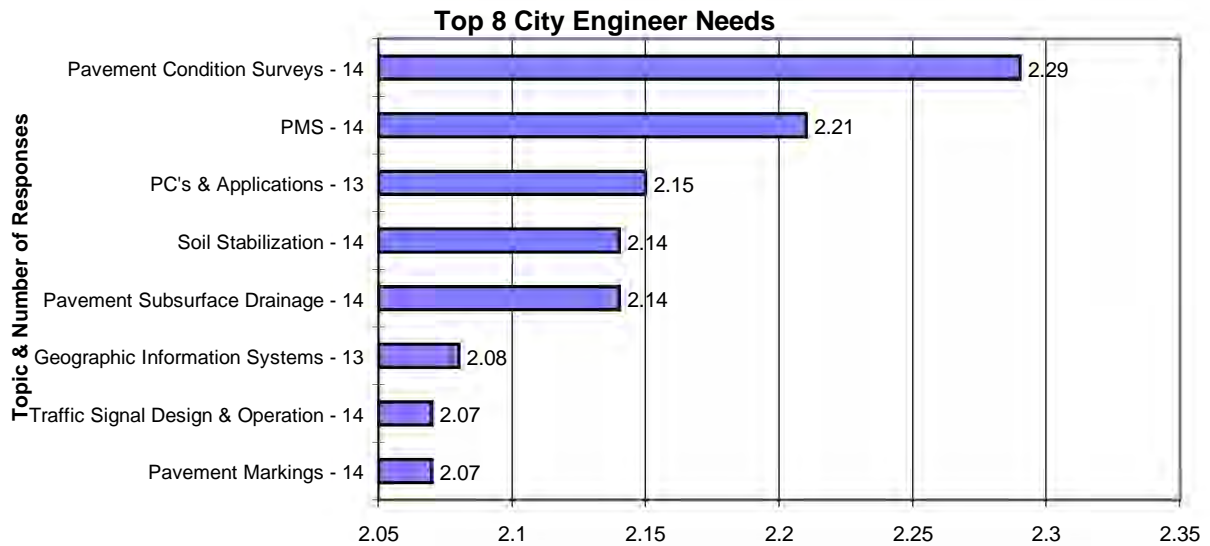
Figure 22: Top 8 City Engineer Needs

Top 8 City Superintendent Needs

Topic & Number of Responses	Value
Pothole Repair - 26	2.38
Snow Plow Operation - 27	2.15
Work Zone Safety - 26	2.12
Blade Operation - 26	2.08
First Aid - 25	2.04
Front End Loaders - 25	2.04
Blading Techniques - 25	2.04
Stormwater Drainage - 25	1.96
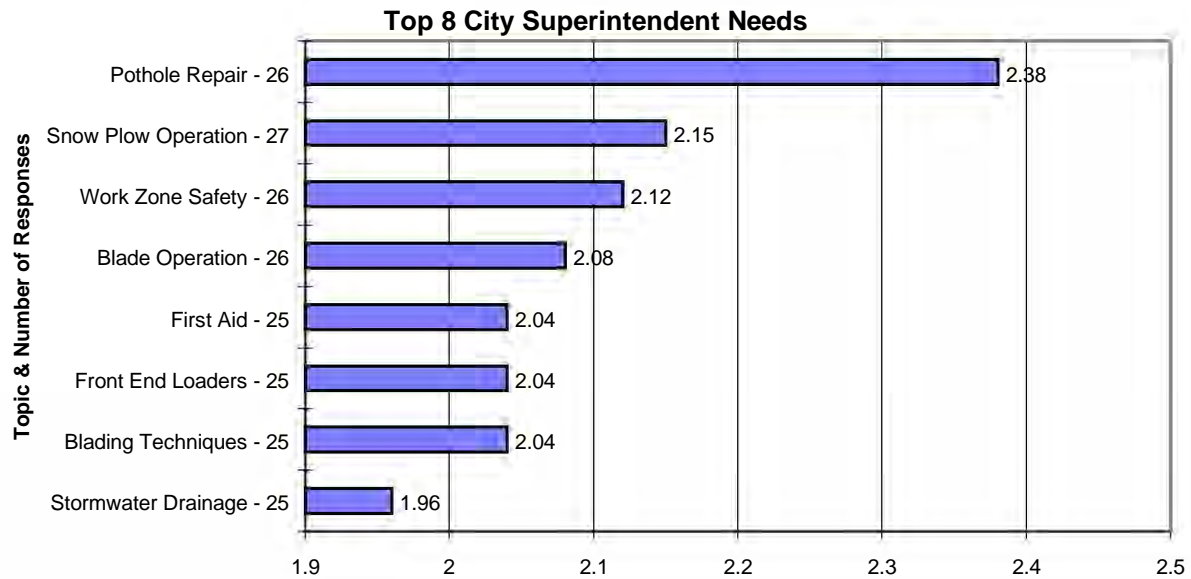
Figure 23: Top 8 City Superintendent Needs

Top 8 City Supervisor Needs

Topic & Number of Responses	Value
First Aid - 15	2.33
Back Injury - 16	2.25
Snow Plow Operation - 15	2.2
CPR - 15	2.13
Stormwater Drainage - 15	2.13
Equipment Specifications - 14	2.07
Work Zone Safety - 16	2.06
Proper Lifting & Carrying - 16	2
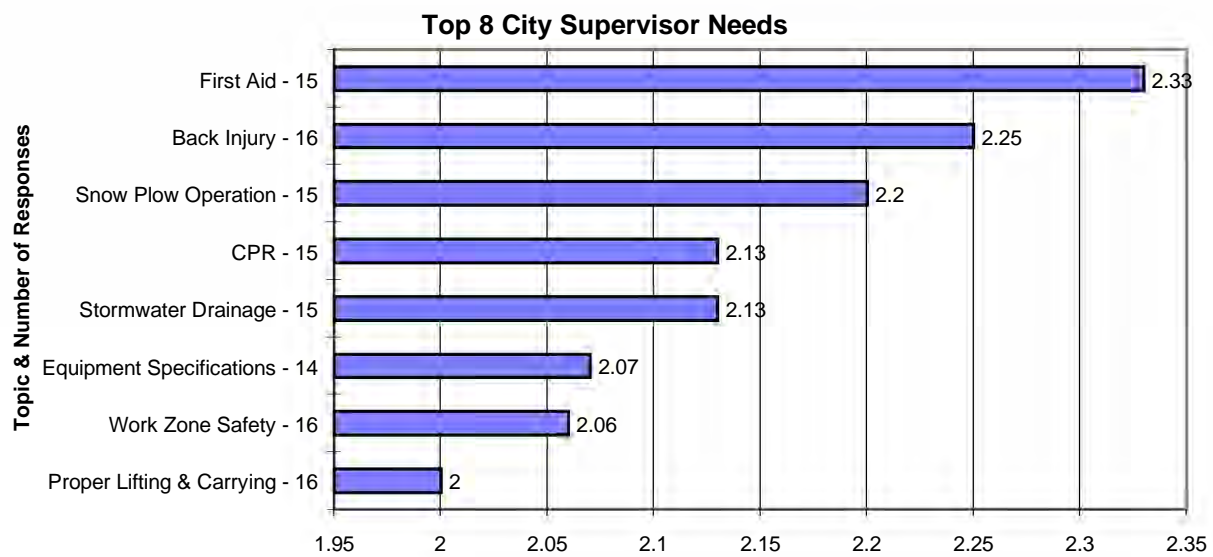
Figure 24: Top 8 City Supervisor Needs

Consultants

Consultants had the highest need in the traffic operations/control category. They also had some need in the different pavement categories. Pavement management systems (2.29), concrete pavement design (2.29), and traffic engineering (2.17) topped the list for consultant needs. Figure 25 displays the top consultant needs.

Top 20 Consultant Needs

Topic & Number of Responses	Value
Pavement Management Syst. - 7	2.29
Concrete Pavement Design - 7	2.29
Traffic Engineering - 7	2.17
Safety Elements in Road Design - 7	2.14
Geometric Design - 7	2.14
Survey Corner Rest. & Mon. - 7	2.14
Pavement Subsurface Drainage - 7	2.14
Pavement Condition Surveys - 7	2.14
Concrete Inspection & Testing - 7	2.14
Asphalt Materials & Mix Design - 7	2.14
Highway Capacity Analysis - 7	2
Traffic Sign Design & Operation - 7	2
Construction Staking - 7	2
Stormwater Drainage - 7	2
Geotextiles - 7	2
Concrete Materials & Mix - 7	2
Asphalt Pavement Design - 7	2
Soil Stabilization - 7	1.86
Street & Hwy Lighting - 7	1.86
Traffic Signs - 7	1.86

Figure 25: Top 20 Consultant Needs

Contractors

The contractors had top needs in the equipment and safety categories. CDL (2.14), work zone safety (2.13), and equipment preventive maintenance (2.08) were the most needed type of training. Contractor supervisors followed this same pattern. Figures 26 and 27 show the top contractor needs.

Top 20 Contractor Needs

Topic & Number of Responses	Value
CDL - 14	2.14
Work Zone Safety - 14	2.13
Equip. Preventive Maintenance - 14	2.08
First Aid - 14	2.07
Proper Flagging Techniques - 14	2.07
Equipment Safety Inspection - 14	2.07
Managing Vehicles & Equipment - 14	2
Equipment Specifications - 14	2
Proper Lifting & Carrying - 14	1.86
Personal Protective Equipment - 14	1.86
Workplace - 13	1.85
Front End Loaders - 14	1.79
Flagging Certification - 14	1.79
First Responder - 14	1.79
Head & Face Protection - 14	1.79
Hands, Arms, & Legs Protection - 14	1.79
Excavator - 13	1.77
Back Injury - 14	1.71
CPR - 14	1.71
Blade Operation - 13	1.69

Figure 26: Top 20 Contractor Needs

Top 8 Contractor Supervisor Needs

Topic & Number of Responses	Value
Work Zone Safety - 8	2.62
First Aid - 7	2.57
Proper Flagging Techniques - 7	2.57
CDL - 7	2.43
Equipment Preventive Maintenance - 6	2.33
Equipment Safety Inspection - 7	2.29
Managing Vehicles & Equipment - 7	2.29
Equipment Specifications - 7	2.14
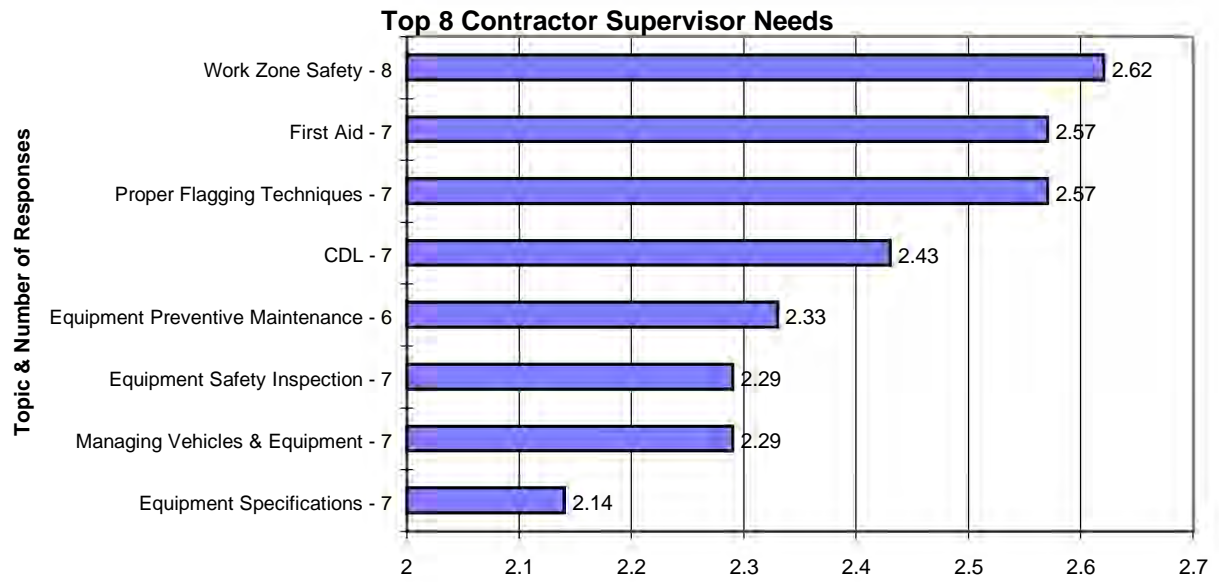
Figure 27: Top 8 Contractor Supervisor Needs

Counties

County personnel showed their top four needs to be in the gravel roads and winter maintenance subject areas. The top four training needs included: blading techniques (2.41), blade operation (2.41), snow plow operation (2.3), and rural plowing and sanding (2.26). Elected officials had their highest level of need in the management/planning category subject area. Equipment operators saw most of their needs coming from the equipment category. Superintendents showed highest level of need in the gravel road and safety subject areas and supervisors were somewhat diversified in their training needs. Figures 28-32 show the top county training needs.

Top 20 County Needs

Topic & Number of Responses	Value
Blading Techniques - 102	2.41
Blade Operation - 102	2.41
Snow Plow Operation - 101	2.3
Rural Plowing & Sanding - 101	2.26
Culvert Installation - 100	2.24
CPR - 94	2.22
First Aid - 96	2.21
Budget Preparation & Accounting - 99	2.2
Proper Lifting & Carrying - 97	2.2
Motor Grader Operation - 102	2.19
Traffic Signs - 97	2.18
First Responder - 96	2.16
Equipment Preventive Maintenance - 96	2.16
Public Relations for Local Officials - 98	2.15
Communication Skills - 96	2.15
Workplace Safety - 95	2.15
Personal Protective Equipment - 97	2.14
Legal Issues - 92	2.12
Equipment Safety Inspection - 96	2.12
Spring Load Restrictions - 93	2.11

Figure 28: Top 20 County Needs

Top 8 County Elected Official Needs

Topic & Number of Responses	Value
Budget Preparation & Accounting - 35	2.26
Roads & Hwy Basics for Elected Officials - 35	2.23
Blading Techniques - 35	2.2
Blade Operation - 35	2.2
Snow Plow Operation - 34	2.12
Public Relations for Local Officials - 34	2.12
Culvert Installation - 33	2.09
Rural Plowing & Sanding - 33	2.09
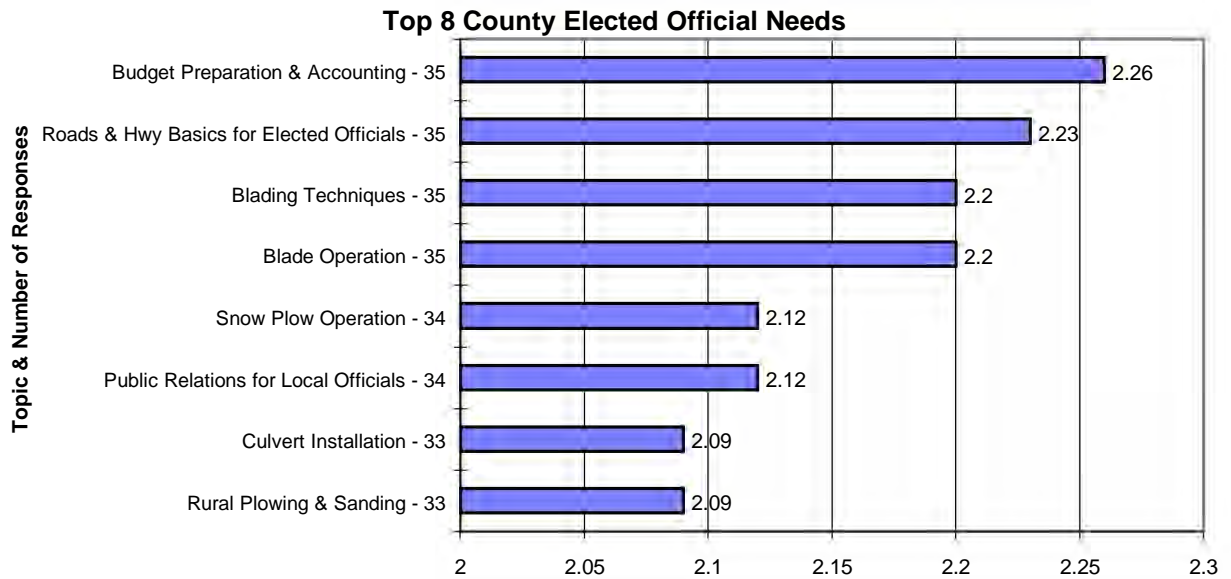
Figure 29: Top 8 County Elected Official Needs

Top 8 County Equipment Operator Needs

Topic & Number of Responses	Value
CDL - 5	2.8
Blade Operation - 8	2.62
Front End Loaders - 5	2.6
Equipment Safety Inspection - 5	2.6
Snow Plow Operation - 7	2.57
Motor Grader Operation - 8	2.5
Equipment Preventive Maintenance - 6	2.5
Bridge Condition Inspection - 7	2.43
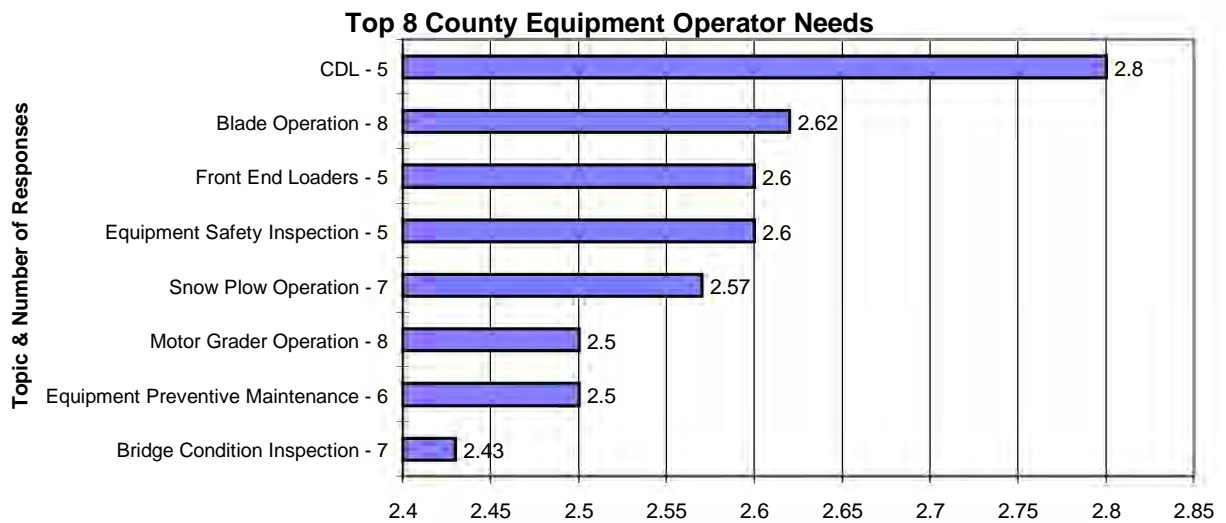
Figure 30: Top 8 County Equipment Operator Needs

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Top 8 County Superintendent Needs

Topic & Number of Responses	Value
Blading Techniques - 49	2.53
Blade Operation - 49	2.53
First Aid - 48	2.5
CPR - 48	2.46
Proper Lifting & Carrying - 49	2.45
Traffic Signs - 49	2.43
Back Injury - 48	2.4
Snow Plow Operation - 49	2.37

(horizontal axis: 2.35, 2.37, 2.39, 2.41, 2.43, 2.45, 2.47, 2.49, 2.51, 2.53, 2.55)
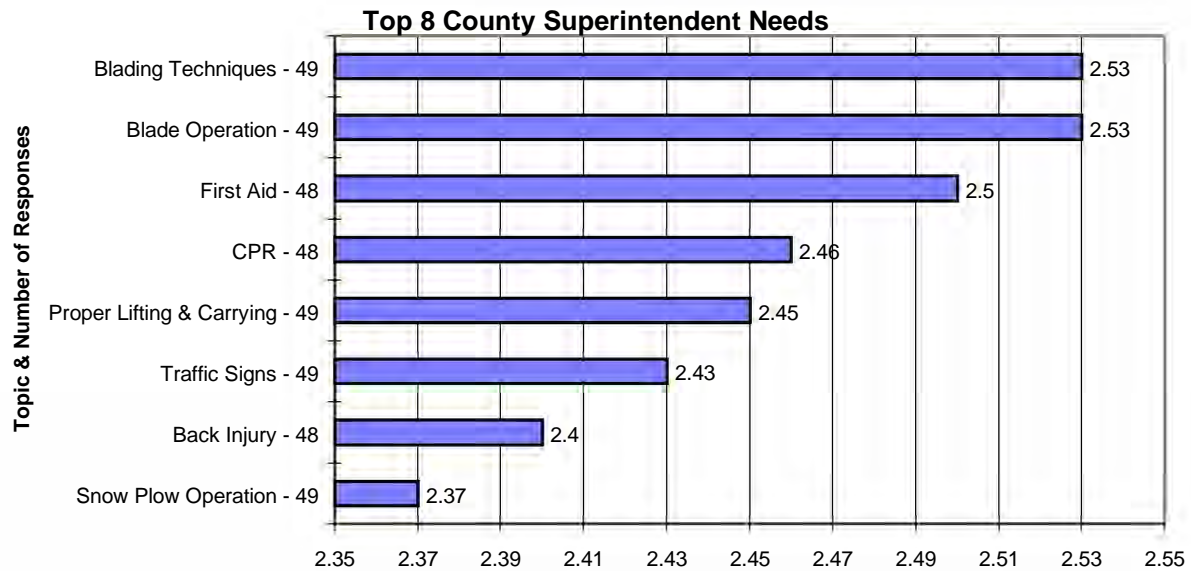
Figure 31: Top 8 County Superintendent Needs

Top 8 County Supervisor Needs

Topic & Number of Responses	Value
Motor Grader Operation - 8	2.38
Culvert Installation - 8	2.38
Erosion Control - 8	2.38
First Responder - 9	2.33
Blading Techniques - 7	2.29
Blade Operation - 7	2.29
Communication Skills - 8	2.25
Traffic Signs - 8	2.25

(horizontal axis: 2.23, 2.25, 2.27, 2.29, 2.31, 2.33, 2.35, 2.37, 2.39)
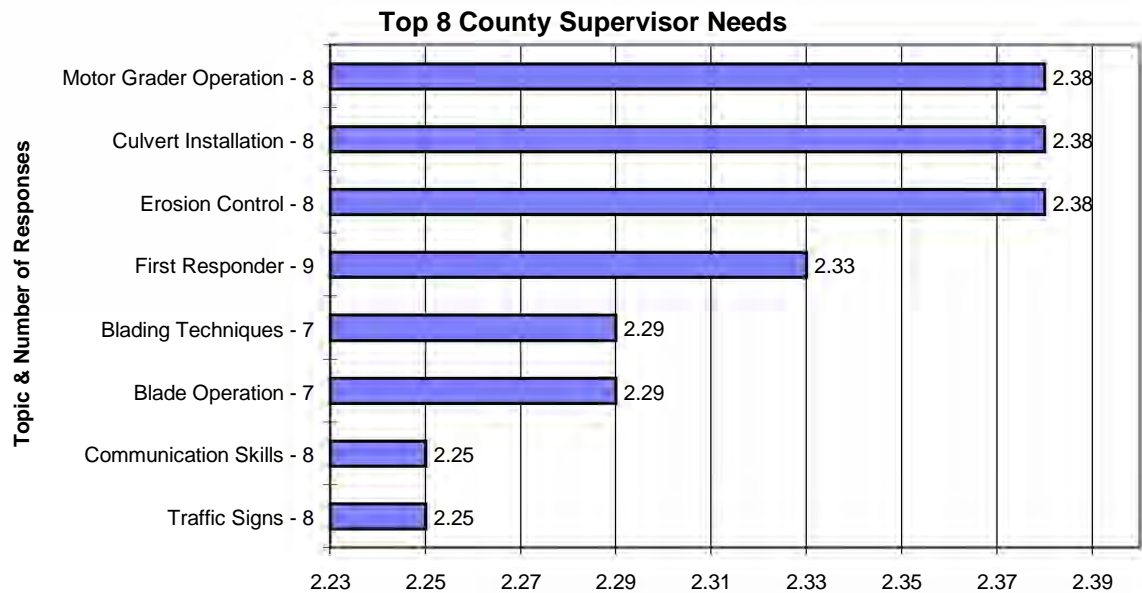
Figure 32: Top 8 County Supervisor Needs

Federal Agencies

Figures 33 and 34 show the top rated federal training needs. Overall, every roadside maintenance and gravel road training need was rated in the top 20 for the federal agency level. The top five include: erosion control (2.25), culvert design (2.25), culvert installation (2.25), materials, properties, and tests (gravel roads - 2.25), and pothole repair (2.25).

Top 20 Federal Needs

Topic & Number of Responses	Rating
Erosion Control - 8	2.25
Culvert Design - 8	2.25
Culvert Installation - 8	2.25
Materials Properties & Tests - 8	2.25
Pothole Repair - 8	2.25
Blading Techniques - 7	2.14
Blade Operation - 8	2.12
Traffic Signs - 8	2
Ditching Techniques - 8	2
Stormwater Drainage - 8	2
Crack Sealing - 8	2
Chip Seal Materials - 8	2
First Aid - 8	1.88
Work Zone Safety - 8	1.88
Ditch & Drainage Maintenance - 8	1.88
Weed & Vegetation Control - 8	1.88
Urban Plowing & Snow Rem.- 8	1.88
Snow Plow Operation - 8	1.88
Bridge Maint. Techniques - 8	1.88
Dust Control - 8	1.88

Figure 33: Top 20 Federal Needs

Top 8 Federal Supervisor Needs

(Y-axis: Topic & Number of Responses)

- Culvert Design - 4: 3
- Culvert Installation - 4: 3
- Materials Properties & Tests - 4: 3
- Erosion Control - 4: 2.75
- Weed & Vegetation Control - 4: 2.75
- Blading Techniques - 4: 2.75
- Blade Operation - 4: 2.75
- Pothole Repair - 4: 2.75

(X-axis: 2.7, 2.8, 2.9, 3)
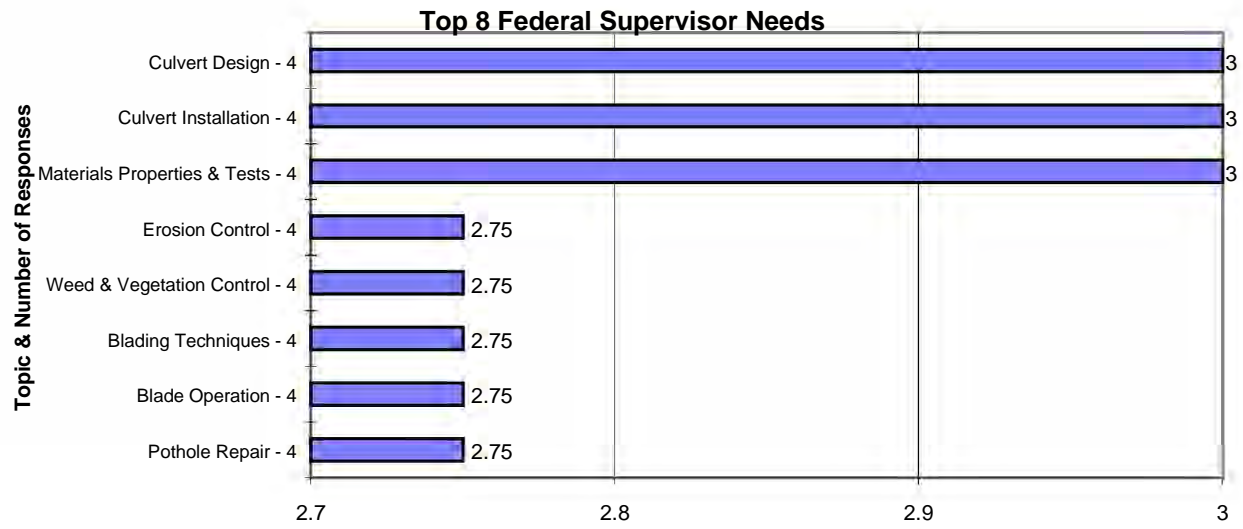
Figure 34: Top 8 Federal Supervisor Needs

State

The majority of the state responses were from the South Dakota Department of Transportation. Nineteen of the top twenty rated state needs came from either the safety or the management/planning category. Work zone safety (2.03), first aid (1.91), and personal computers and applications (1.84) topped the list of state training needs. Engineers followed this same pattern with most of their top needs coming from those two categories. Supervisors had most of their top rated needs in the safety category. Figures 35-37 show the top state training needs.

Top 20 State Needs

Topic & Number of Responses	Value
Work Zone Safety - 33	2.03
First Aid - 33	1.91
PCs & Applications - 32	1.84
Communication Skills - 31	1.81
Proper Lifting & Carrying - 33	1.79
CPR - 33	1.79
Proper Flagging Techniques - 32	1.78
Legal Issues - 31	1.77
Back Injury - 33	1.76
Tort Liability - 32	1.72
Head & Face Protection - 33	1.7
First Responder - 33	1.7
Personal Protective Equipment - 33	1.69
Hazardous Materials #1 - 32	1.69
Hands, Arms, & Legs Protection - 33	1.67
Hazardous Materials #2 - 32	1.66
Hazard. Mat. Stor. Hand. & Disp. - 32	1.66
Drug/Alcohol Detection - 31	1.65
Traffic Signs - 33	1.64
Budget Prep. & Accounting - 31	1.61

Figure 35: Top 20 State Needs

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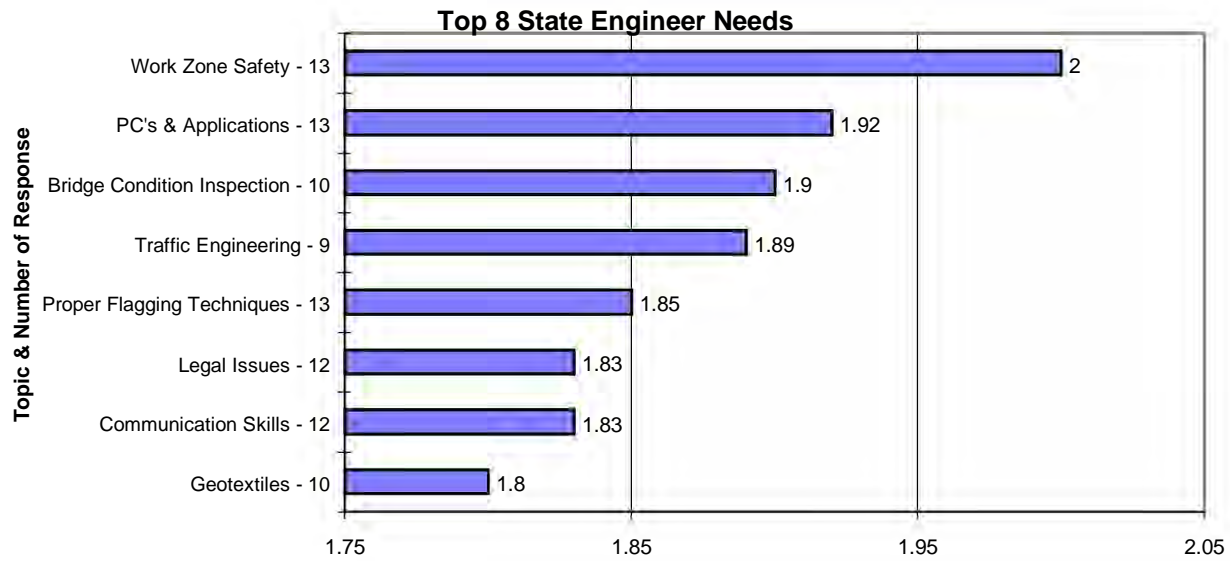
Figure 36: Top 8 State Engineer Needs
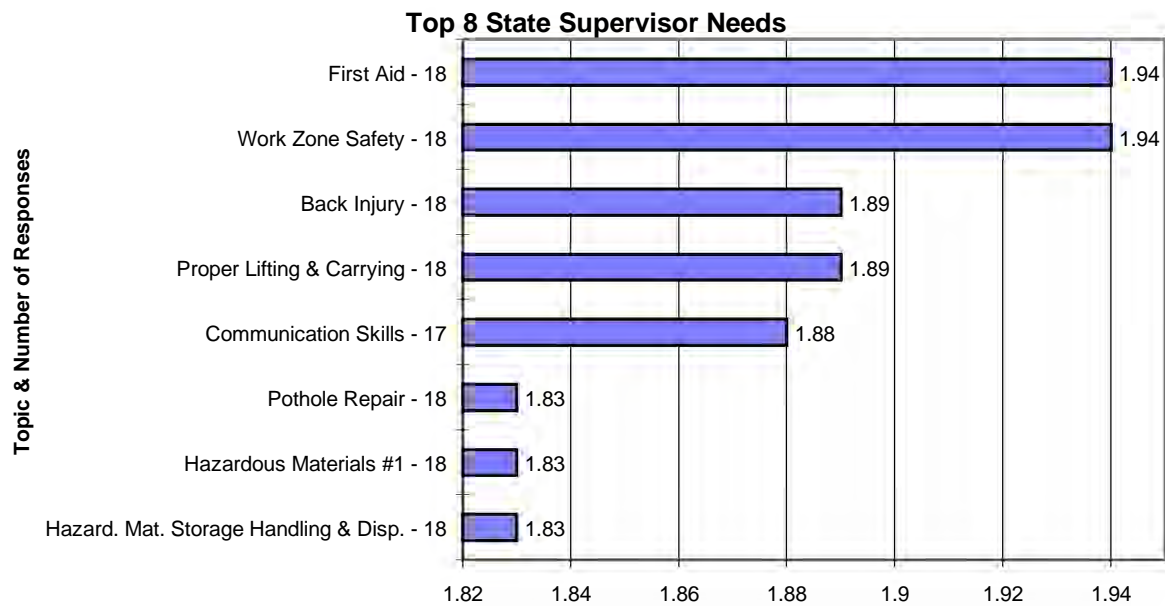
Figure 37: Top 8 State Supervisor Needs

Townships

Townships' most needed training needs were mainly from the gravel roads and roadside maintenance categories. Blading techniques (2), blade operation (1.99), culvert installation (1.88), and weed and vegetation control (1.81) topped the list at the township level. The elected officials, staff, and supervisors also had most of their highest level of need in these categories. Figures 38 through 41 show the top needs at the township level. As you can see, the averages for the needs are as a whole lower than the other agencies. A lot of the township respondents commented that this survey did not apply to them, and that they hire out almost all of their work.

Top 20 Township Needs

Topic & Number of Responses	Value
Blading Techniques - 100	2
Blade Operation - 101	1.99
Culvert Installation - 95	1.88
Weed & Vegetation Control - 96	1.81
Snow Plow Operation - 95	1.64
Culvert Design - 89	1.62
Materials Properties & Tests - 89	1.6
Rural Plowing & Sanding - 90	1.51
Ditch & Drainage Maitenance - 85	1.48
Ditching Techniques - 87	1.44
Traffic Signs - 91	1.42
Rds & Hwy Basics for Elect. Offls - 88	1.39
Erosion Control - 89	1.36
Stormwater Drainage - 87	1.17
Legal Issues - 82	1.16
Dust Control - 90	1.03
Success Supervision for Local Rd Supervisors - 86	1.01
Bridge Condition Inspection - 87	0.9
Proper Flagging Techniques - 90	0.87
Motor Grader Operation - 85	0.81

Figure 38: Top 20 Township Needs

Top 8 Township Elected Official Needs

Topic & Number of Responses	Value
Blading Techniques - 53	2.11
Blade Operation - 54	2.07
Culvert Installation - 52	1.88
Weed & Vegetation Control - 51	1.86
Culvert Design - 51	1.71
Snow Plow Operation - 51	1.61
Materials Properties & Tests - 47	1.6
Ditch & Drainage Maintenance - 48	1.56
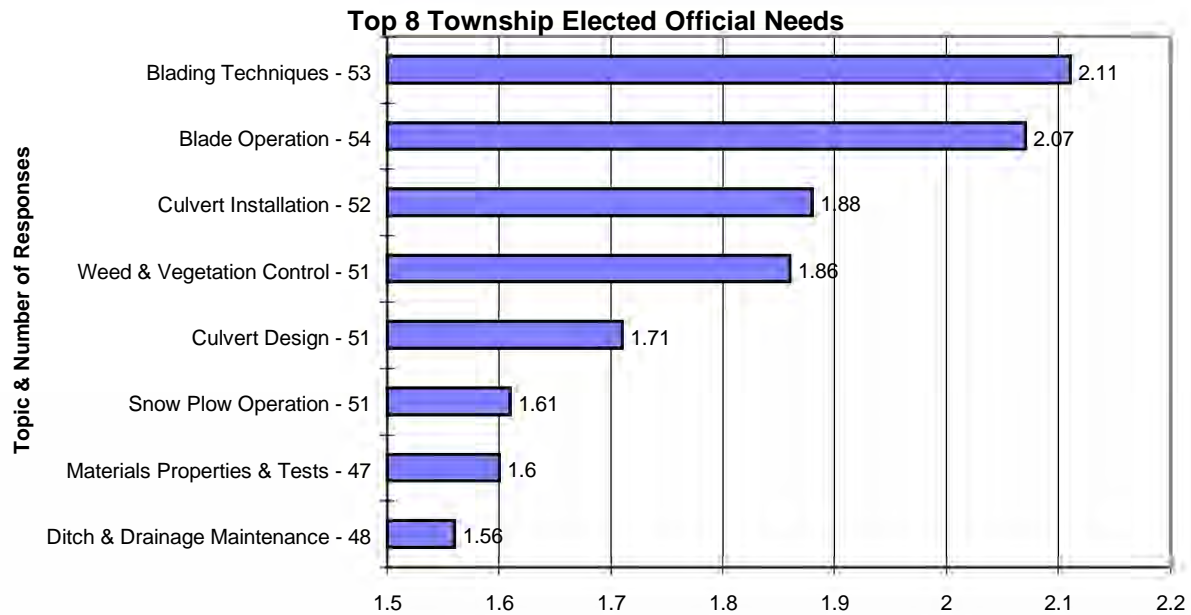
Figure 39: Top 8 Township Elected Official Needs

Top 8 Township Staff Needs

Topic & Number of Responses	Value
Culvert Installation - 20	1.9
Blade Operation - 23	1.74
Rural Plowing & Sanding - 21	1.71
Weed & Vegetation Control - 24	1.71
Snow Plow Operation - 22	1.68
Blading Techniques - 23	1.65
Traffic Signs - 22	1.64
Ditching Techniques - 19	1.53
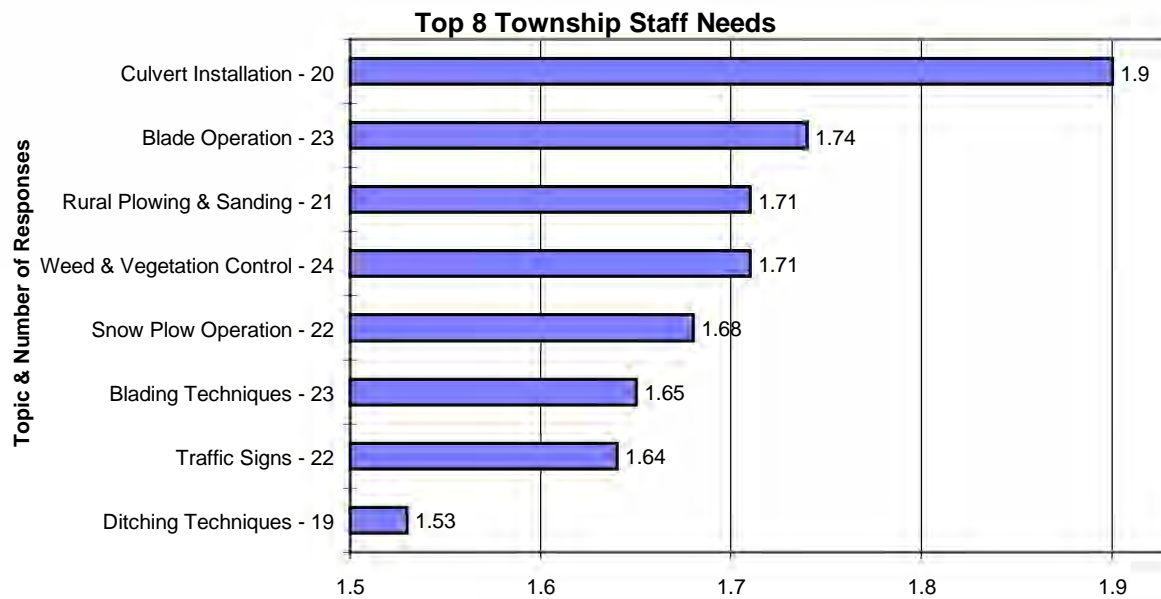
Figure 40: Top 8 Township Staff Needs

44

Top 8 Township Supervisor Needs

Need & Number of Response	Value
Blading Techniques - 19	1.95
Blade Operation - 18	1.89
Culvert Installation - 18	1.72
Weed & Vegetation Control - 18	1.72
Roads & Hwy Basics for Elected Officials - 18	1.61
Materials Properties & Tests - 18	1.61
Snow Plow Operation - 17	1.59
Culvert Design - 18	1.44
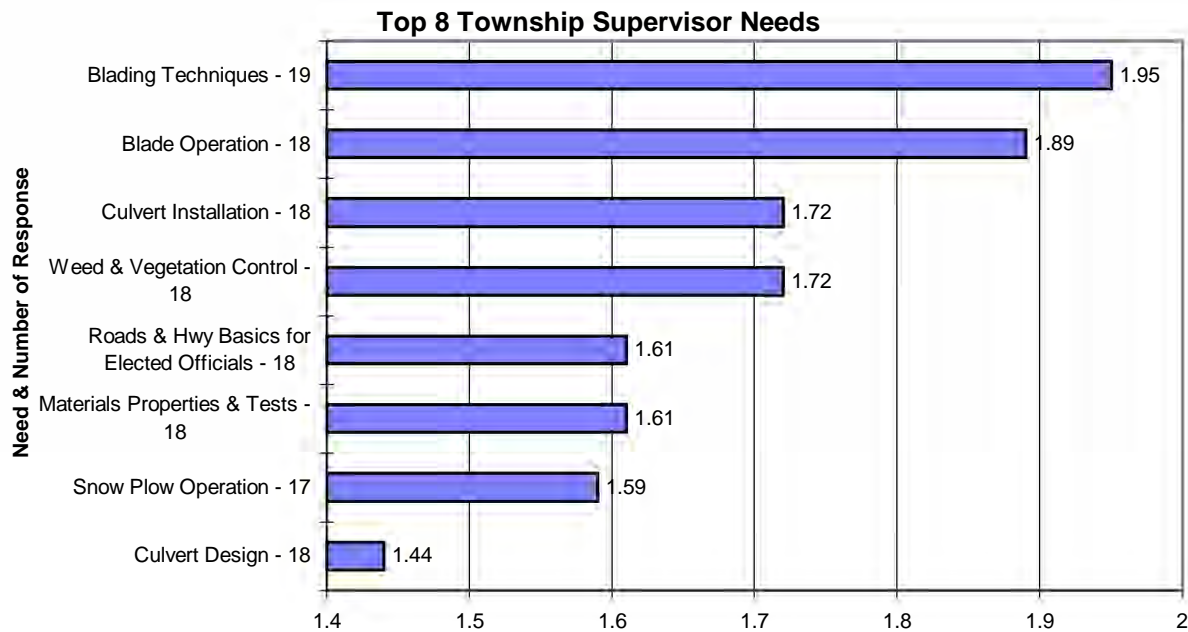
Figure 41: Top 8 Township Supervisor Needs

D. LTAP's Potential Role

Figure 42 shows the percents of yes/no responses to questions in the SDLTAP's Potential Role section of the survey. Many people favored a catalog describing the services provided by SDLTAP as well as ads for equipment available in the newsletter. Few respondents said that they would like to write for SDLTAP's publications.
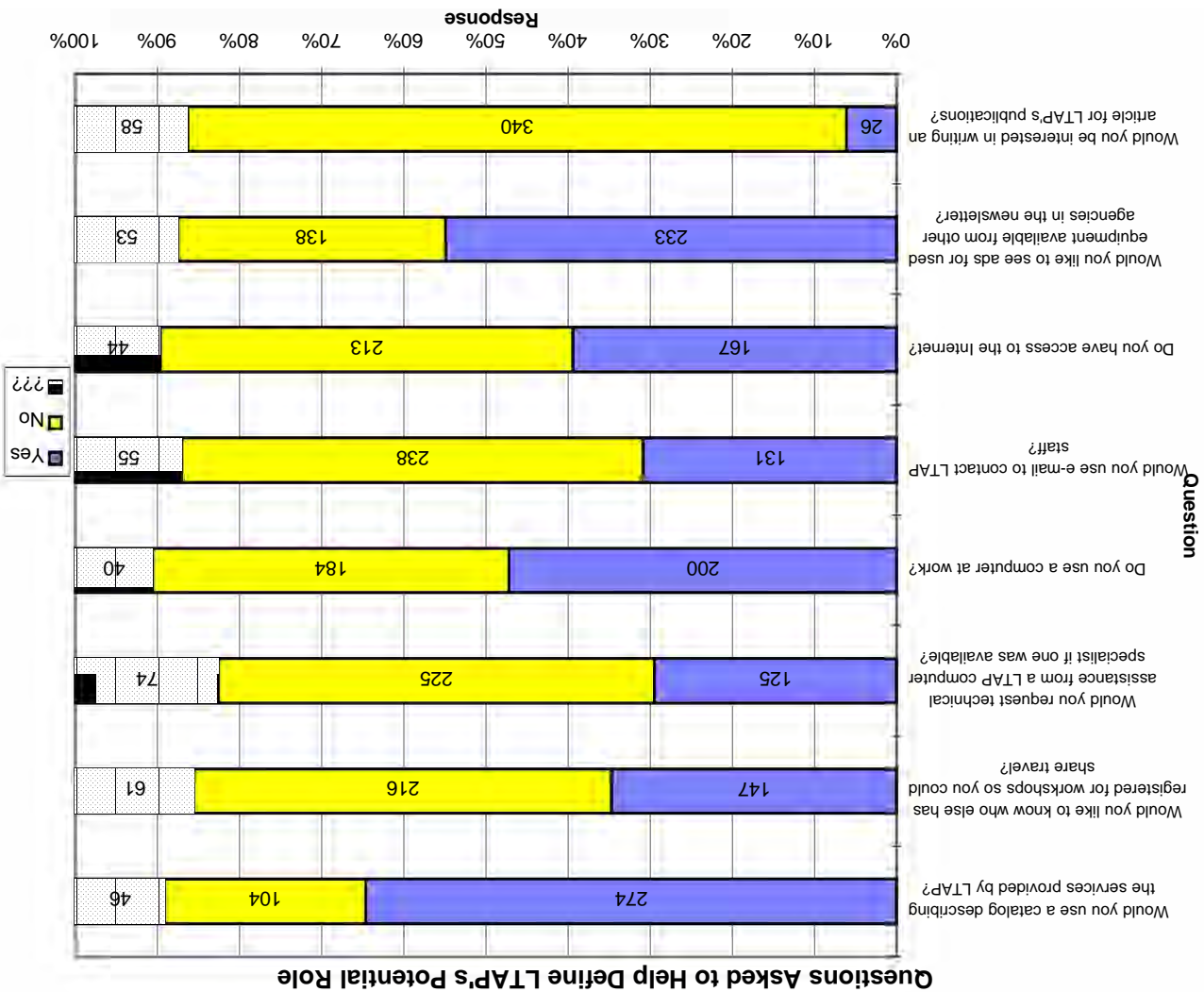
Figure 42: Chart Shows Information From LTAP's Potential Role Questions

Questions Asked to Help Define LTAP's Potential Role

Question	Yes	No	???
Would you be interested in writing an article for LTAP's publications?	26	340	58
Would you like to see ads for used equipment available from other agencies in the newsletter?	233	138	53
Do you have access to the Internet?	167	213	44
Would you use e-mail to contact LTAP staff?	131	238	55
Do you use a computer at work?	200	184	40
Would you request technical assistance from a LTAP computer specialist if one was available?	125	225	74
Would you like to know who else has registered for workshops so you could share travel?	147	216	61
Would you use a catalog describing the services provided by LTAP?	274	104	46

Response axis: 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%

E. Your Preferences

Figure 43 shows the desired length of time for a training workshop. Not quite half (43.9%) of the responders said that one day best fits their schedule. Many (16.7%) said that one-half a day works best and many (18.6%) said that the length 'doesn't matter'.

Desired Workshop Length

1 Day - 186
43.9%

2 Days - 27
6.4%

??? - 60
14.2%

3 Days - 1
0.2%

Doesn't matter - 79
18.6%

1/2 Day - 71
16.7%
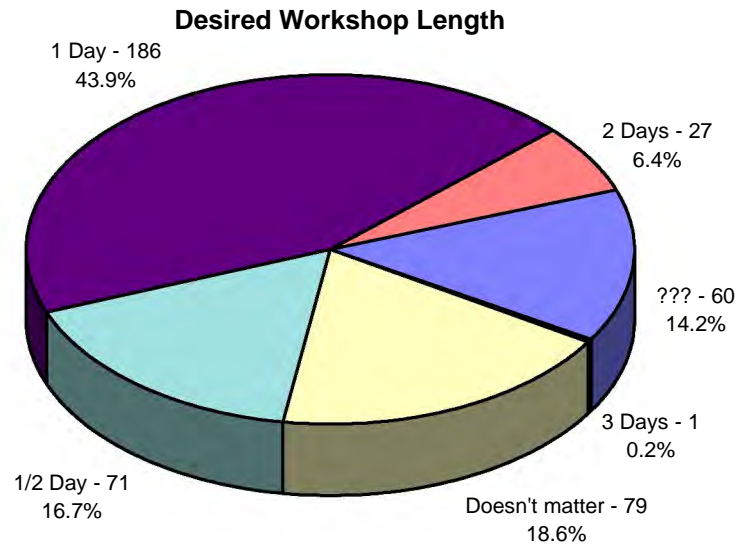
Figure 43: Desired Workshop Length

Winter was by far the best season to attend a training workshop for those who responded. Forty-eight percent (48%) said that winter worked best and twenty percent (20%) said that it doesn't matter. Another twenty percent (20%) agreed that fall was best for attending.

Wednesdays and Thursdays had the best marks for days of the week to attend a training course. Mondays and Fridays were rated as the worst overall for attending. Tuesday would be considered 'OK' for a training course.

Figure 44 illustrates the longest distances the responders said they would travel to attend a training course. Up to 100 miles was favored by most of the clients.

Longest Distance of Travel for Training
in miles (# of respondents)
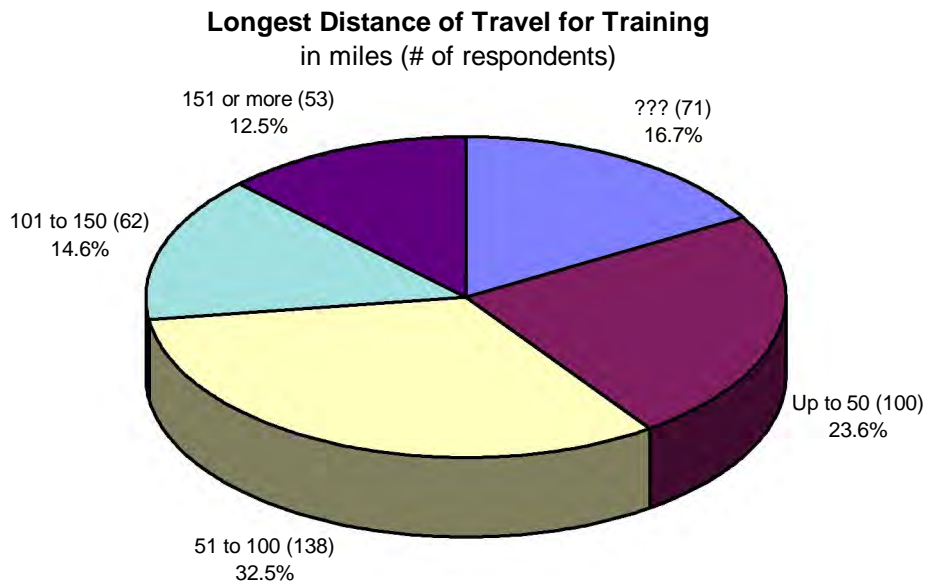
Figure 44: Longest Distance Of Travel For Training

The top obstacle to attending training activities was time. Course content played a big role along with the distance being too far. All of the rest of the factors ranked about the same overall. None really stood out as much as time, course content, and distance. The comments made by respondents at the end of the survey can be found in Appendix C.

F. Survey Revisions

The survey needed some revisions before using it again. Some of the questions were not interpreted clearly by the respondents and needed correction. In the 'General' section, 'city' in the location blank was made all capitals in order to make responders enter only a city and not something else. The 'LTAP's Current Role' section needed some changes with the special bulletin questions. "Do you receive it?" was added because some responders appeared to receive the newsletter but did not receive the special bulletin. Others appeared to receive the special bulletin and not the newsletter.

The rest of the survey was clear to those who responded except for a few questions in the 'Your Preferences' section. They following three questions had numerous people circle more than one answer:

- What length of time for a training workshop *best* fits your schedule?

- Which season is *most* convenient for you to attend a training program?

- What is the *longest* distance you would travel to attend a training course?

To prevent more than one selection being circled, the italicized words were made bold face typing and after each question the responder was reminded to select only one answer. This will help make analysis of the survey easier. The last question in this section was the most confusing to the responders. Many did not answer it the way it was intended. They were supposed to use each rank only one time and many people used the same numbers more than once. This did not give a good order of importance for analysis. To fix the misunderstanding, it was made clearer to use each rank only one time in the question.

Conclusions

Useful findings became evident early in the project, during the focus groups. Comments from the 27 participants suggested that:

- Users of SDLTAP's services are generally satisfied with their quality. Predominantly positive opinions were expressed on SDLTAP's:
  - staff competency, friendliness and helpfulness
  - technical assistance
  - training workshops
  - newsletter (the *Connection*)
  - technical bulletins
- Awareness and use of SDLTAP varies by type of agency. Focus group participants from federal, county, city and state agencies were most familiar with SDLTAP's services and had taken most advantage of them in the past. Township officials and contractors' staff were generally less familiar.
- In spite of differences between organizations, most face common challenges, including:
  - limited staffing
  - budget constraints
  - growing workload
  - rising costs

- Although the three focus groups differed in their estimates of current funding for SDLTAP, they agreed closely on the relative importance of its functions. Typically, participants said they would allocate the following fractions of a hypothetical budget to:
  - formal workshops, 30%
  - on-site visits, 30%
  - technical assistance, 20%
  - newsletter publication, 10%
  - other, 10%

Interviews with SDLTAP staff revealed a good understanding of clients' needs. Staff at South Dakota State University (Ken Skorseth, Lorna Foster, and Sue Grant) and at the South Dakota School of Mines and Technology (Marv Espeland) demonstrated their commitment to helping local agencies and other clients meet their technical and administrative challenges. They also expressed their belief that other clients, particularly in the contracting industry, could benefit from additional outreach. Pat Collins, formerly of the South Dakota Department of Transportation's Training Activity and now (following reorganization) with the Bureau of Personnel, provided valuable advice on the mailed survey instrument.

Findings of the mailed survey confirmed many of the perceptions expressed in the focus groups and staff interviews:
- As had been suggested in the focus groups, the survey showed that county, city and state personnel are most familiar with SDLTAP services and have used them most in the past. Federal and tribal officials are also quite aware, but the relatively small number of responses from these groups weakens this finding somewhat. Consultants, township officials and contractors appear to be least familiar with the services, and to some extent are unsure whether the services are appropriate to their needs.
- Respondents expressed predominantly favorable opinions of SDLTAP's present services. For every service offered, favorable responses greatly outweighed unfavorable, suggesting that the quality of service generally meets clients' needs.
- Survey responses suggested that training needs vary somewhat by organization and by respondents' positions within their organizations, but many training needs are common to all agencies within the state. Overall, the top twenty training needs identified from analysis of all returned surveys are:

- blading techniques

- blade operation

- snow plow operation

- culvert installation

- traffic signs

- weed & vegetation control

- first aid

- (gravel) material properties and tests

- legal issues

- culvert design

- erosion control

- ditch & drainage maintenance

- cardiopulmonary resuscitation

- work zone safety

- proper lifting and carrying

- ditching techniques

- budget preparation and accounting

- rural plowing and sanding

- first responder

- motor grader operation

Survey respondents did not suggest radical changes to SDLTAP's activities. Responses to questions regarding SDLTAP's potential role suggested that some opportunity exists to use computer communication (via E-mail or Internet) to communicate with local agencies and to provide general computer assistance to local agencies. A few respondents said they were interested in contributing articles to the newsletter, and a majority said they would use a catalog describing SDLTAP's services.

In regard to workshop length and location, over 60% of respondents said they prefer workshops of one day duration or less, and 56% said travel distances over 100 miles of travel are unacceptable.

Implementation Recommendations

Based on the findings produced from this study, the researchers offer the following recommendations:

1. *The South Dakota Local Transportation Assistance Program's Advisory Board should consider this study's information regarding transportation agency needs as it recommends training courses.* Emphasis should be given to the types of training identified as greatest needs for most agencies and job positions, but consideration should be also given for limited numbers of presentations of special interest training important to certain segments of SDLTAP's clientele.

2. *The South Dakota Local Transportation Assistance Program should update its mailing list to reflect changes in elected and appointed officials.* During the course of this study, the survey was mailed with address correction requested. Numerous surveys were returned, indicating that regular SDLTAP mailings are not always reaching their intended destination.

3. *The South Dakota Local Transportation Assistance Program should take action to inform township officials and contractors of its existence and services.* In both the focus groups and the mailed survey, township and contractor groups were consistently less aware of SDLTAP's services and had used them less often than other client groups. Possible outreach methods include articles in the *Connection* as well as newsletters published by the South Dakota Association of Towns and Townships and the Associated General Contractors, and presentations to the associations' annual conventions. The articles and presentations should describe SDLTAP's services and explain SDLTAP's policy of no workshop fees.

4. *The South Dakota Local Transportation Assistance Program should publish a summary of this study in its quarterly newsletter.* Participants in focus groups indicated that they would like to be informed of its findings, preferably through the *Connection.*

5. *The South Dakota Local Transportation Assistance Program should continue its efforts to encourage local agencies to coordinate on-site "road show" presentations.* Focus group participants praised the road show program for making training available to entire crews rather than the more limited numbers of persons who can attend formal workshops. To make these on-site visits more efficient, SDLTAP has begun to encourage sponsoring agencies to invite neighboring counties, towns, and other agencies to the presentations. SDLTAP should

more actively encourage this kind of cooperation, especially in light of the fact that less than 10% of the respondents said they had attended a road show to date.

6. *The South Dakota Local Transportation Assistance Program should explore the possibility of providing training in equipment operation through cooperative arrangements with agencies, contractors, equipment suppliers, and South Dakota's vocational schools.* According to results of the mailed survey, "hands-on" training in equipment operation is a significant training need. Because this type of training requires extensive preparation, it exceeds the capability of SDLTAP alone. Such training may be possible through cooperative efforts with other organizations.

7. *The South Dakota Local Transportation Assistance Program should consider establishing an Internet home page describing its services, listing course schedules, and providing select technical information for access by its clientele.* A significant portion of survey respondents indicated that they have computers in their offices and would use information conveyed by E-mail or other means. Because a home page will become more useful as time goes on and even more SDLTAP clients get Internet access, this recommendation should be considered within one year of this study.

Appendix A - 1998 Survey and Cover Letter

June 30, 1998

Dear Colleague:

Since 1998, the South Dakota Local Transportation Assistance Program (formerly the South Dakota Transportation Technology Transfer Service) has provided training and technical assistance to people and organizations responsible for building and maintaining South Dakota's roads and streets.

The staff of SDLTAP has asked my office to conduct a customer survey to determine how they can improve their service to you. They would like to know how well they are meeting your needs now, and whether there are ways they could meet your needs better in the future.

I encourage you to take just fifteen minutes to respond to this survey. Your responses will be presented to the staff and Advisory Board of SDLTAP later this summer, so they can decide how to enhance their services to you.

Please Note: If you received more than one survey form in this package, please distribute the forms to others within your organization. It is important that we receive input from people with various responsibilities—superintendents, foremen, equipment operators, crew members, elected officials, clerical workers, administrators, and others. If you need more forms, feel free to make copies or call my secretary, Virginia Ripley, at 605/773-3292.

Note that responses are due by July 17, to allow us time to summarize them for the SDLTAP Advisory Board meeting in August.

Thank you for your help!

Local Transportation Agency Training and Technical Assistance Needs Assessment Survey -- 1998

The South Dakota Local Transportation Assistance Program (SDLTAP) provides training and technical assistance to state, local, and tribal highway and street departments in South Dakota. It was established in 1988 and is jointly operated by South Dakota State University, the South Dakota School of Mines and Technology, and the South Dakota Department of Transportation. The SDLTAP was formerly called the South Dakota Transportation Technology Transfer Service (SDT^{3}S).

This survey asks you to help determine the current and potential role of SDLTAP in meeting your training and technical needs. It will only take about 15 minutes to complete. *To assist you in meeting your agency's needs, we need your input.* Please complete the survey and return it in the postage paid envelope by July 17th. Your input will be very much appreciated!!

Please complete the following by circling one or listing the appropriate answer:

GENERAL

Your organization/agency:

Township	County	City	State	Federal	Tribal	Contractor	Consultant

Your position in organization/agency:

Engineer	Equip. Operator	Supervisor	Superintendent	Staff	Elected Official	Other_____

How many people work in your organization/agency?

1-5 people	6-10 people	11-15 people	16 or more people

Years in Your Present Position_____   Total Years Related Experience_____

Location(city)_____

LTAP'S CURRENT ROLE

Do you know that the Local Transportation Assistance Program (LTAP) exists?   Yes   No

Have you ever attended a LTAP training workshop?   Yes   No
If Yes, please rate the training workshops on the following:

Useful Information	Excellent	Good	OK	Fair	Poor
Current Information	Excellent	Good	OK	Fair	Poor
Instructors	Excellent	Good	OK	Fair	Poor
Visual Aids (slides, videos)	Excellent	Good	OK	Fair	Poor
Overall Quality	Excellent	Good	OK	Fair	Poor

Have you ever attended a LTAP roadshow?   Yes   No
If Yes, please rate the roadshows on the following:

Useful Information	Excellent	Good	OK	Fair	Poor
Current Information	Excellent	Good	OK	Fair	Poor
Instructors	Excellent	Good	OK	Fair	Poor
Overall Quality	Excellent	Good	OK	Fair	Poor

Have you ever used LTAP's technical materials (videos, literature)?   Yes   No
If Yes, please rate the material on the following:

Useful Information	Excellent	Good	OK	Fair	Poor
Current Information	Excellent	Good	OK	Fair	Poor
Timeliness	Excellent	Good	OK	Fair	Poor
Overall Quality	Excellent	Good	OK	Fair	Poor

Have you ever used LTAP's on-site technical assistance?   Yes   No
If Yes, please rate the technical assistance on the following:

Useful Information	Excellent	Good	OK	Fair	Poor
Current Information	Excellent	Good	OK	Fair	Poor
Timeliness	Excellent	Good	OK	Fair	Poor
Overall Quality	Excellent	Good	OK	Fair	Poor

Please answer the following about SDLTAP's newsletter (*The Connection*):

Do you receive it?	Yes	No		
Do you receive it personally or through your office?	Personally	Office		
Do you find it applicable to your work?	Always	Sometimes	Never	
How much of the newsletter do you read?	All	¾	½	¼	None
Rate the overall quality of the publication:	Excellent	Good	OK	Fair	Poor

Please answer the following about SDLTAP's Special Bulletins (blue inserts):

Do you find it applicable to your work?	Always	Sometimes	Never	
How much of it do you read?	All	¾	½	¼	None
Rate the overall quality of the publication:	Excellent	Good	OK	Fair	Poor

How many times a year do you use LTAP's training and technical services?

	None	Once	Twice	Three	Four or more

AGENCY NEEDS

For the following questions, circle the response that *best* indicates the level of <u>need</u> for training and assistance for each specific task at your job level:

Asphalt Pavements

Asphalt Pavement Laydown	High	Medium	Low	No need
Asphalt Pavement Inspection & Testing	High	Medium	Low	No need
Asphalt Pavement Design	High	Medium	Low	No need
Asphalt Shoulder Maintenance	High	Medium	Low	No need
Asphalt Materials & Mix Design	High	Medium	Low	No need
Chip Seal Design & Construction	High	Medium	Low	No need
Chip Seal Materials	High	Medium	Low	No need
Chip Seal Inspection	High	Medium	Low	No need
Slurry Seals	High	Medium	Low	No need
Crack Sealing	High	Medium	Low	No need
Pothole Repair	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Concrete Pavements

Concrete Pavement Design	High	Medium	Low	No need
Concrete Inspection & Testing	High	Medium	Low	No need
Concrete Paving Techniques	High	Medium	Low	No need
Concrete Surface Repairs	High	Medium	Low	No need
Concrete Materials & Mix	High	Medium	Low	No need
Paver Operations	High	Medium	Low	No need
Silicone Joint Sealant	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Gravel Roads

Dust Control	High	Medium	Low	No need
Blade Operation	High	Medium	Low	No need
Materials Properties and Tests	High	Medium	Low	No need
Blading Techniques	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

General Pavements

Pavement Management Systems (PMS)	High	Medium	Low	No need
Pavement Condition Surveys	High	Medium	Low	No need
Pavement Subsurface Drainage	High	Medium	Low	No need
Soil Stabilization	High	Medium	Low	No need
Utility Cuts	High	Medium	Low	No need
Spring Load Restrictions	High	Medium	Low	No need
Geotextiles	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Equipment

Equipment Specifications	High	Medium	Low	No need
Commercial Driver's License (CDL)	High	Medium	Low	No need
Managing Vehicles & Equipment	High	Medium	Low	No need
Equipment Safety Inspection	High	Medium	Low	No need
Equipment Preventive Maintenance	High	Medium	Low	No need
Load, Lash and Unload Equipment	High	Medium	Low	No need
Basic Engine Operation	High	Medium	Low	No need
Trucks and Attachments	High	Medium	Low	No need
Tractors and Attachments	High	Medium	Low	No need
Front End Loaders	High	Medium	Low	No need
Motor Grader Operation	High	Medium	Low	No need
Asphalt Distributors Calibration/Maintenance	High	Medium	Low	No need
Roller Operation/Maintenance	High	Medium	Low	No need
Dozer Operation/Maintenance	High	Medium	Low	No need
Cranes and Attachments	High	Medium	Low	No need
Aerial Bucket Truck - "Cherry Picker"	High	Medium	Low	No need
Self-Propelled Spreader Calibration, Operation, and Maintenance	High	Medium	Low	No need
Mud Jack	High	Medium	Low	No need
Asphalt Laydown Machine	High	Medium	Low	No need
Asphalt Recycling Machine	High	Medium	Low	No need

Bridge Snooper	High	Medium	Low	No need
Striping and Painting Equipment	High	Medium	Low	No need
Pugmill	High	Medium	Low	No need
Vacuum Sweepers	High	Medium	Low	No need
Crack Sealing Equipment	High	Medium	Low	No need
Hydraulic Power Systems	High	Medium	Low	No need
Rigging	High	Medium	Low	No need
Profilograph	High	Medium	Low	No need
Forklift Safety Operation	High	Medium	Low	No need
All Terrain Vehicle	High	Medium	Low	No need
Generator	High	Medium	Low	No need
Excavator	High	Medium	Low	No need
Chain Saw	High	Medium	Low	No need
Mowing Machines	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Bridges

Bridge Maintenance Techniques	High	Medium	Low	No need
Bridge Construction/Inspection	High	Medium	Low	No need
Bridge Condition Inspection	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Winter Maintenance

Deicing/Anti-Icing	High	Medium	Low	No need
Snow Plow Operation	High	Medium	Low	No need
Rural Plowing & Sanding	High	Medium	Low	No need
Urban Plowing & Snow Removal	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Roadside Maintenance

Weed & Vegetation Control	High	Medium	Low	No need
Stormwater Drainage	High	Medium	Low	No need
Ditching Techniques	High	Medium	Low	No need
Ditch & Drainage Maintenance	High	Medium	Low	No need
Culvert Installation	High	Medium	Low	No need
Culvert Design	High	Medium	Low	No need
Erosion Control	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Surveying

Survey Corner Restoration and Monumentation	High	Medium	Low	No need
Basic Land Survey	High	Medium	Low	No need
Construction Staking	High	Medium	Low	No need
Total Station 3B Set	High	Medium	Low	No need
Data Collector	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Safety

Work Zone Safety	High	Medium	Low	No need
Hazardous Materials Storage Handling & Disposal	High	Medium	Low	No need
Hazardous Materials Level 1 Awareness	High	Medium	Low	No need
Hazardous Materials Level 2 Operations	High	Medium	Low	No need
Hazardous Materials Level 3 Technician	High	Medium	Low	No need
Hazardous Materials Level 4 Specialist	High	Medium	Low	No need
Hazardous Materials Level 5 On Scene Incident Commander	High	Medium	Low	No need
Proper Flagging Techniques	High	Medium	Low	No need
Flagging Certification	High	Medium	Low	No need
First Aid	High	Medium	Low	No need
Back Injury	High	Medium	Low	No need
First Responder	High	Medium	Low	No need
Cardio-Pulmonary Resuscitation (CPR)	High	Medium	Low	No need
Head & Face Protection	High	Medium	Low	No need
Hands, Arms, & Legs Protection	High	Medium	Low	No need
Proper Lifting & Carrying	High	Medium	Low	No need
Personal Protective Equipment	High	Medium	Low	No need
Workplace	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Traffic Operations/Control

Traffic Engineering	High	Medium	Low	No need
Traffic Signs	High	Medium	Low	No need
Pavement Markings	High	Medium	Low	No need
Street and Highway Lighting	High	Medium	Low	No need

Geometric Design	High	Medium	Low	No need
Traffic Signal Design & Operation	High	Medium	Low	No need
Railroad/Highway Grade Crossings	High	Medium	Low	No need
Safety Elements in Road Design	High	Medium	Low	No need
Warrants for Signs & Signals	High	Medium	Low	No need
Highway Capacity Analysis	High	Medium	Low	No need
Travel Forecasting for Local Agencies	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Management/Planning

Tort Liability	High	Medium	Low	No need
Fundamentals of Transportation Planning	High	Medium	Low	No need
Successful Supervision for Local Road Supervisors	High	Medium	Low	No need
Drug/Alcohol Detection	High	Medium	Low	No need
Personal Computers and Applications	High	Medium	Low	No need
Communication Skills	High	Medium	Low	No need
Budget Preparation & Accounting	High	Medium	Low	No need
Legal Issues	High	Medium	Low	No need
Roads & Highway Basics for Elected Officials	High	Medium	Low	No need
Metric Conversion	High	Medium	Low	No need
Environmental Issues in Transportation	High	Medium	Low	No need
Highway Specifications	High	Medium	Low	No need
Intelligent Transportation Systems	High	Medium	Low	No need
Geographic Information Systems	High	Medium	Low	No need
Public Relations for Local Officials	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

LTAP'S POTENTIAL ROLE

Please check the appropriate box for the following: Yes   No

	Yes	No
Would you use a catalog describing the services provided by LTAP?		
Would you like to know who else has registered for workshops so you could share travel?		
Would you request technical assistance from a LTAP computer specialist if one was available?		
Do you use a computer at work?		
Would you use e-mail to contact LTAP staff?		
Do you have access to the Internet?		
Would you like to see ads for used equipment available from other agencies in the newsletter?		
Would you be interested in writing an article for LTAP's publications?		

What new service(s) could SDLTAP provide that would be beneficial to your department?_____

_____

YOUR PREFERENCES

What length of time for a training workshop *best* fits your schedule?

Half day   One day   Two days   Three days   Doesn't Matter

Which season is *most* convenient for you to attend a training program?

Fall   Winter   Spring   Summer   Doesn't Matter

Please rate each half-day on how well it fits into your schedule to attend training courses:

Monday AM	Good	OK	Poor	Wednesday AM	Good	OK	Poor	Friday AM	Good	OK	Poor
Monday PM	Good	OK	Poor	Wednesday PM	Good	OK	Poor	Friday PM	Good	OK	Poor
Tuesday AM	Good	OK	Poor	Thursday AM	Good	OK	Poor				
Tuesday PM	Good	OK	Poor	Thursday PM	Good	OK	Poor				

What is the *longest* distance you would travel to attend a training course?

50 miles or less   51 to 100 miles   101 to 150 miles   151 miles or more

In order of importance (1 - most important, 8 - least important), rank the following obstacles to attending training workshops: (rank as many as apply)

_____Time   _____Poor Instruction   _____Distance (too far)   _____Already Attended Course

_____Money   _____Course Content   _____Lack of Interest   _____Course Out of Date

Thanks for your time and help!! Please make any other comments that you feel will be helpful in the space below or attach a separate sheet.

Please return to:
South Dakota Department of Transportation

Documentation To Conduct Annual Evaluations & Survey

The methods used to conduct the 1998 SDLTAP survey proved to be excellent means for acquiring the information that was being sought after. Thus, it is suggested that evaluations in the future follow the same format.

When the survey is mailed, responders should be given three weeks to respond. This amount of time is not too long or short and helps to increase the number of respondents. It is also advised to send out a follow-up mailing half way through the response period. This also helps to increase the number of responses by reminding those people who might have tossed the survey aside. Included with the survey should be some sort of cover letter that explains the purpose and background behind the questionnaire. This will help make the person filling out the survey more comfortable in responding to it if they know its purpose.

As the surveys return, it is good to collect the information in a spreadsheet or database. Microsoft® Excel was used for the 1998 questionnaire and worked great for organizing the data. Once the response period is over, the use of some type of statistical software will work good for analyzing the data. A software package called Knowledge Seeker was used for the 1998 survey.

To analyze most of the survey, all you need to do is look at question and its number of responses for each available selection to see the results. There are two parts of the survey were a different approach is needed. The last question of the survey which asks the responder to rank the obstacles to attending a training workshop would best be analyzed if you take an average for each obstacle. You then obtain an average rank for each obstacle. The other part of the survey that needs a different approach is the 'Agency Needs' section of the survey. It was found that to analyze the results of this section, each rank for the level of need should be given a numeric value. Give high need a value of 3, medium need a value of 2, low need a value of 1, and no need a value of 0. This way you can calculate an average level of need and then see which training needs have a higher level of need than the others. You can then look at averages for all different agencies and positions. Once the data has been analyzed and presented in an organized form, SDLTAP will be able to structure their efforts around the survey findings.

Local Transportation Agency Training and Technical Assistance Needs Assessment Survey

The South Dakota Local Transportation Assistance Program (SDLTAP) provides training and technical assistance to state, local, and tribal highway and street departments in South Dakota. It was established in 1988 and is jointly operated by South Dakota State University, the South Dakota School of Mines and Technology, and the South Dakota Department of Transportation. The SDLTAP was formerly called the South Dakota Transportation Technology Transfer Service (SDT^{3}S).

This survey asks you to help determine the current and potential role of SDLTAP in meeting your training and technical needs. It will only take about 15 minutes to complete. *To assist you in meeting your agency's needs, we need your input.* Please complete the survey and return it in the postage paid envelope by July 17th. Your input will be very much appreciated!!

Please complete the following by circling one or listing the appropriate answer:

GENERAL

Your organization/agency:

Township   County   City   State   Federal   Tribal   Contractor   Consultant

Your position in organization/agency:

Engineer   Equip. Operator   Supervisor   Superintendent   Staff   Elected Official   Other_____

How many people work in your organization/agency?

1-5 people   6-10 people   11-15 people   16 or more people

Years in Your Present Position_____   Total Years Related Experience_____

Location(CITY)_____

LTAP'S CURRENT ROLE

Do you know that the Local Transportation Assistance Program (LTAP) exists?   Yes   No

Have you ever attended a LTAP training workshop?   Yes   No
If Yes, please rate the training workshops on the following:

Useful Information	Excellent	Good	OK	Fair	Poor
Current Information	Excellent	Good	OK	Fair	Poor
Instructors	Excellent	Good	OK	Fair	Poor
Visual Aids (slides, videos)	Excellent	Good	OK	Fair	Poor
Overall Quality	Excellent	Good	OK	Fair	Poor

Have you ever attended a LTAP roadshow?   Yes   No
If Yes, please rate the roadshows on the following:

Useful Information	Excellent	Good	OK	Fair	Poor
Current Information	Excellent	Good	OK	Fair	Poor
Instructors	Excellent	Good	OK	Fair	Poor
Overall Quality	Excellent	Good	OK	Fair	Poor

Have you ever used LTAP's technical materials (videos, literature)?   Yes   No
If Yes, please rate the material on the following:

Useful Information	Excellent	Good	OK	Fair	Poor
Current Information	Excellent	Good	OK	Fair	Poor
Timeliness	Excellent	Good	OK	Fair	Poor
Overall Quality	Excellent	Good	OK	Fair	Poor

Have you ever used LTAP's on-site technical assistance?   Yes   No
If Yes, please rate the technical assistance on the following:

Useful Information	Excellent	Good	OK	Fair	Poor
Current Information	Excellent	Good	OK	Fair	Poor
Timeliness	Excellent	Good	OK	Fair	Poor
Overall Quality	Excellent	Good	OK	Fair	Poor

Please answer the following about SDLTAP's newsletter (*The Connection*):

Do you receive it?	Yes	No		
Do you receive it personally or through your office?	Personally	Office		
Do you find it applicable to your work?	Always	Sometimes	Never	
How much of the newsletter do you read?	All	¾	½	¼	None
Rate the overall quality of the publication:	Excellent	Good	OK	Fair	Poor

Please answer the following about SDLTAP's Special Bulletins (blue inserts):

Do you receive it?	Yes	No		
Do you find it applicable to your work?	Always	Sometimes	Never	
How much of it do you read?	All	¾	½	¼	None

Rate the overall quality of the publication: Excellent   Good   OK   Fair   Poor

How many times a year do you use LTAP's training and technical services?

None   Once   Twice   Three   Four or more

AGENCY NEEDS

For the following questions, circle the response that *best* indicates the level of <u>need</u> for training and assistance for each specific task at your job level:

Asphalt Pavements

Asphalt Pavement Laydown	High	Medium	Low	No need
Asphalt Pavement Inspection & Testing	High	Medium	Low	No need
Asphalt Pavement Design	High	Medium	Low	No need
Asphalt Shoulder Maintenance	High	Medium	Low	No need
Asphalt Materials & Mix Design	High	Medium	Low	No need
Chip Seal Design & Construction	High	Medium	Low	No need
Chip Seal Materials	High	Medium	Low	No need
Chip Seal Inspection	High	Medium	Low	No need
Slurry Seals	High	Medium	Low	No need
Crack Sealing	High	Medium	Low	No need
Pothole Repair	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Concrete Pavements

Concrete Pavement Design	High	Medium	Low	No need
Concrete Inspection & Testing	High	Medium	Low	No need
Concrete Paving Techniques	High	Medium	Low	No need
Concrete Surface Repairs	High	Medium	Low	No need
Concrete Materials & Mix	High	Medium	Low	No need
Paver Operations	High	Medium	Low	No need
Silicone Joint Sealant	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Gravel Roads

Dust Control	High	Medium	Low	No need
Blade Operation	High	Medium	Low	No need
Materials Properties and Tests	High	Medium	Low	No need
Blading Techniques	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

General Pavements

Pavement Management Systems (PMS)	High	Medium	Low	No need
Pavement Condition Surveys	High	Medium	Low	No need
Pavement Subsurface Drainage	High	Medium	Low	No need
Soil Stabilization	High	Medium	Low	No need
Utility Cuts	High	Medium	Low	No need
Spring Load Restrictions	High	Medium	Low	No need
Geotextiles	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Equipment

Equipment Specifications	High	Medium	Low	No need
Commercial Driver's License (CDL)	High	Medium	Low	No need
Managing Vehicles & Equipment	High	Medium	Low	No need
Equipment Safety Inspection	High	Medium	Low	No need
Equipment Preventive Maintenance	High	Medium	Low	No need
Load, Lash and Unload Equipment	High	Medium	Low	No need
Basic Engine Operation	High	Medium	Low	No need
Trucks and Attachments	High	Medium	Low	No need
Tractors and Attachments	High	Medium	Low	No need
Front End Loaders	High	Medium	Low	No need
Motor Grader Operation	High	Medium	Low	No need
Asphalt Distributors Calibration/Maintenance	High	Medium	Low	No need
Roller Operation/Maintenance	High	Medium	Low	No need
Dozer Operation/Maintenance	High	Medium	Low	No need
Cranes and Attachments	High	Medium	Low	No need
Aerial Bucket Truck - "Cherry Picker"	High	Medium	Low	No need
Self-Propelled Spreader Calibration, Operation, and Maintenance	High	Medium	Low	No need
Mud Jack	High	Medium	Low	No need
Asphalt Laydown Machine	High	Medium	Low	No need
Asphalt Recycling Machine	High	Medium	Low	No need
Bridge Snooper	High	Medium	Low	No need

	High	Medium	Low	No need
Striping and Painting Equipment	High	Medium	Low	No need
Pugmill	High	Medium	Low	No need
Vacuum Sweepers	High	Medium	Low	No need
Crack Sealing Equipment	High	Medium	Low	No need
Hydraulic Power Systems	High	Medium	Low	No need
Rigging	High	Medium	Low	No need
Profilograph	High	Medium	Low	No need
Forklift Safety Operation	High	Medium	Low	No need
All Terrain Vehicle	High	Medium	Low	No need
Generator	High	Medium	Low	No need
Excavator	High	Medium	Low	No need
Chain Saw	High	Medium	Low	No need
Mowing Machines	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Bridges

	High	Medium	Low	No need
Bridge Maintenance Techniques	High	Medium	Low	No need
Bridge Construction/Inspection	High	Medium	Low	No need
Bridge Condition Inspection	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Winter Maintenance

	High	Medium	Low	No need
Deicing/Anti-Icing	High	Medium	Low	No need
Snow Plow Operation	High	Medium	Low	No need
Rural Plowing & Sanding	High	Medium	Low	No need
Urban Plowing & Snow Removal	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Roadside Maintenance

	High	Medium	Low	No need
Weed & Vegetation Control	High	Medium	Low	No need
Stormwater Drainage	High	Medium	Low	No need
Ditching Techniques	High	Medium	Low	No need
Ditch & Drainage Maintenance	High	Medium	Low	No need
Culvert Installation	High	Medium	Low	No need
Culvert Design	High	Medium	Low	No need
Erosion Control	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Surveying

	High	Medium	Low	No need
Survey Corner Restoration and Monumentation	High	Medium	Low	No need
Basic Land Survey	High	Medium	Low	No need
Construction Staking	High	Medium	Low	No need
Total Station 3B Set	High	Medium	Low	No need
Data Collector	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Safety

	High	Medium	Low	No need
Work Zone Safety	High	Medium	Low	No need
Hazardous Materials Storage Handling & Disposal	High	Medium	Low	No need
Hazardous Materials Level 1 Awareness	High	Medium	Low	No need
Hazardous Materials Level 2 Operations	High	Medium	Low	No need
Hazardous Materials Level 3 Technician	High	Medium	Low	No need
Hazardous Materials Level 4 Specialist	High	Medium	Low	No need
Hazardous Materials Level 5 On Scene Incident Commander	High	Medium	Low	No need
Proper Flagging Techniques	High	Medium	Low	No need
Flagging Certification	High	Medium	Low	No need
First Aid	High	Medium	Low	No need
Back Injury	High	Medium	Low	No need
First Responder	High	Medium	Low	No need
Cardio-Pulmonary Resuscitation (CPR)	High	Medium	Low	No need
Head & Face Protection	High	Medium	Low	No need
Hands, Arms, & Legs Protection	High	Medium	Low	No need
Proper Lifting & Carrying	High	Medium	Low	No need
Personal Protective Equipment	High	Medium	Low	No need
Workplace	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Traffic Operations/Control

	High	Medium	Low	No need
Traffic Engineering	High	Medium	Low	No need
Traffic Signs	High	Medium	Low	No need
Pavement Markings	High	Medium	Low	No need
Street and Highway Lighting	High	Medium	Low	No need
Geometric Design	High	Medium	Low	No need

Traffic Signal Design & Operation	High	Medium	Low	No need
Railroad/Highway Grade Crossings	High	Medium	Low	No need
Safety Elements in Road Design	High	Medium	Low	No need
Warrants for Signs & Signals	High	Medium	Low	No need
Highway Capacity Analysis	High	Medium	Low	No need
Travel Forecasting for Local Agencies	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

Management/Planning

Tort Liability	High	Medium	Low	No need
Fundamentals of Transportation Planning	High	Medium	Low	No need
Successful Supervision for Local Road Supervisors	High	Medium	Low	No need
Drug/Alcohol Detection	High	Medium	Low	No need
Personal Computers and Applications	High	Medium	Low	No need
Communication Skills	High	Medium	Low	No need
Budget Preparation & Accounting	High	Medium	Low	No need
Legal Issues	High	Medium	Low	No need
Roads & Highway Basics for Elected Officials	High	Medium	Low	No need
Metric Conversion	High	Medium	Low	No need
Environmental Issues in Transportation	High	Medium	Low	No need
Highway Specifications	High	Medium	Low	No need
Intelligent Transportation Systems	High	Medium	Low	No need
Geographic Information Systems	High	Medium	Low	No need
Public Relations for Local Officials	High	Medium	Low	No need
Other_____	High	Medium	Low	No need

LTAP'S POTENTIAL ROLE

Please check the appropriate box for the following: Yes   No

Would you use a catalog describing the services provided by LTAP?
Would you like to know who else has registered for workshops so you could share travel?
Would you request technical assistance from a LTAP computer specialist if one was available?
Do you use a computer at work?
Would you use e-mail to contact LTAP staff?
Do you have access to the Internet?
Would you like to see ads for used equipment available from other agencies in the newsletter?
Would you be interested in writing an article for LTAP's publications?

What new service(s) could SDLTAP provide that would be beneficial to your department?_____

YOUR PREFERENCES

What length of time for a training workshop *best* fits your schedule? (circle one)

Half day   One day   Two days   Three days   Doesn't Matter

Which season is *most* convenient for you to attend a training program? (circle one)

Fall   Winter   Spring   Summer   Doesn't Matter

Please rate each half-day on how well it fits into your schedule to attend training courses:

Monday AM	Good	OK	Poor	Wednesday AM	Good	OK	Poor	Friday AM	Good	OK	Poor
Monday PM	Good	OK	Poor	Wednesday PM	Good	OK	Poor	Friday PM	Good	OK	Poor
Tuesday AM	Good	OK	Poor	Thursday AM	Good	OK	Poor				
Tuesday PM	Good	OK	Poor	Thursday PM	Good	OK	Poor				

What is the *longest* distance you would travel to attend a training course? (circle one)

50 miles or less   51 to 100 miles   101 to 150 miles   151 miles or more

In order of importance (1 - most important, 8 - least important), **rank** the following obstacles to attending training workshops:
   (rank as many as apply and use each number **once**)

_____Time   _____Poor Instruction   _____Distance (too far)   _____Already Attended Course

_____Money   _____Course Content   _____Lack of Interest   _____Course Out of Date

Thanks for your time and help!! Please make any other comments that you feel will be helpful in the space below or attach a separate sheet.

Please return to:
South Dakota Department of Transportation

Appendix B - Comments On What Services SDLTAP Could Provide

City

You may already provide road grader training.

State specifications for curb and highway pads - concrete specifications.

Asphalt, signing, painting, drainage, snow removal.

Very good deal.

Financial assistance available for road projects in small towns - (grants).

I am pretty new to this department so I will be able to answer this better next year.

Consultant

Update information.

Contractor

Suggest they have a booth at SD Municipal League Convention.

Safety meetings or information on safety programs. Any kind of safety awareness.

A central location that distributes all of the training available for our industry. One brochure that describes training from LTAP, AGC, SD Safety Council, FHWA, etc.

Use this in connection with National Quality Initiative.

County

Would like to see more commissioners and auditors attend your meetings so they understand them.

I think LTAP has well covered our needs.

Safety

Resource available if we need information.

Ads for used equipment.

Send a blade operator to the job site to teach operators instead of schools.

Surplus equipment and new equipment bid listings from counties and cities.

More maintenance of highways sharing between SDDOT and counties.

Uses of recycled landfill materials that have proven to be efficient.

The need for county governments to receive more highway dollars. More of the federal money.

How elected officials can use the agency in their work as well as the departments work.

State

Springs and seeps that develop in roadbeds and subsequently freeze covering road surface.

Township

More emphasis on township problems.

Our township has no equipment or property. We contract our road maintenance.

I'd like to learn more about blading dirt and gravel roads.

More information on township roads - bridges and culverts.

Where would you find out about meeting times?

A sharing of rotary mowers on township roads - so townships would all be mowed 2 times a year - for protection against deer and other animals.

Dealing with washboarding.

Don't know at this time.

Appendix C - Comments At The End Of The Survey

City

We are so small, that we hire most of the this type of work done.

The town board doesn't think any of this is necessary so they wouldn't fund it and they won't join the Township Association either. We are a town of 24 with no businesses. The county maintains the road through town (very poorly).

I am sorry, but I don't think this survey pertains to us. Thanks.

Contractor

Transportation people are high exposure. I don't believe you can rate the importance of their functions. All are very important state down to townships, which are financially strapped.

I am a small excavating contractor in Brookings, and do very little street work. If I did more street work and traveled outside Brookings I would be more interested.

Is there a charge for local contractors to attend sessions?

County

Who does SDDOT have that is qualified to teach or put on course work listed in pages 2, 3, 4. I haven't seen that "Expert" person in any or my travels.

Tripp county can use money for bridge work maybe from grants or some sort small portion of that 3 cent gas tax.

My position does not require hands-on technical experience/knowledge; it is primarily to channel information to those with the need to know.

Thanks for including me in this survey. I talked to the Day county Highway Superintendent and he has completed the survey as his department uses LTAP to a great extent.

I think this is more for the highway superintendent.

As elected official I have not attended these but know highway superintendent and employees do and gain a lot.

I leave most of this work to our superintendent and I just supervise.

LTAP has been a great help to me and the SD Highway Superintendent Association!!

State

As we continue to promote local government cooperation, I support enhancing joint training with DOT Maintenance.

Township

It is important to me to understand the basics of road construction and maintenance so that I am able to project costs and budget for repairs. We have no maintenance department and board members are usually unavailable to attend meetings. So any help would be greatly appreciated.

The township hires independent contractors for blading and snow removal. The training is not as high of a priority for them as it is for us.

Hamlin County does the road work, snow removal, and graveling for our townships. So we have no use for workshops, equipment or training. We have a problem, we call the county highway Superintendent.

My answers are from township level only.

LTAP does not pertain to us. We are a small township with only 12 miles of township gravel roads.

We are a very small township with very little money. Do not know the answers to some questions. Most does not apply to us.

We receive compliments on the way we keep our 31 miles up. The county takes care of our bridges. We hire some snow plowing and also individual farmers use snow blowers. We hire roadside mowing and farmers do additional mowing and spray ditch weeds.

We are a small township with a couple county roads and BIA roads running through.

The superintendents have little interest in attending.

Our township hires a contractor to grade and for snow removal and road repair.

Townships are very small, very local governments. We have 5 elected officials; we contact out our road work. Blading and building of roads. We would like to see the local contractors attend these training sessions but so far they are not interested.

Information does not apply to our township

Aberdeen townships has all township work done by local contractors. Townships officials do not at present have time for road workshops.

Appendix D - 1998 Focus Group Attendees

Mobridge

Allan Bonnema	Perkins County Highway Superintendent
Gary Byre	Walworth County Highway Superintendent
Bob Erdmann	Bureau of Indian Affairs - Aberdeen
Todd Goldsmith	Mobridge Area Department of Transportation
Lyle Quenzer	Campbell County Highway Superintendent
Roger Rhowedder	McPherson County Highway Superintendent
Randy Seiler	Corson County Highway Superintendent
Brad Ware	Potter County Highway Superintendent

Rapid City

David Bowes	Custer State Park
Leonard Feiman	Custer Area Department of Transportation
Dennis Hammond	Heavy Constructors, Inc.
Nick Koenigs	Badlands National Park
Terry Larson	Heavy Constructors, Inc.
Ted Vore	City of Spearfish
Don Weichedel	Meade County Highway Superintendent
Harold Weiss	Township Association

Mitchell

Gail Brock	SD Association of Towns & Townships
Pat Cranny	Mitchell Region Department of Transportation
Don Kuyper	Aurora County Highway Superintendent
Dale Metter	SD Association of Towns & Townships
Gary Meyer	City of Sioux Falls
Ron Olson	City of Mitchell
Neil Putnam	City of Mitchell
Ray Roggow	Gregory County Highway Superintendent
Al Schroeder	SD Association of Towns & Townships
Elmer Werning	Township Association
Duane Zard	Davison County Highway Superintendent