

These cards contained information relevant to keeping the formal economy. Thus, participants were informed about the gasoline efficiency of their automobiles, travel time, out-of-pocket costs, and travel routing. Under all conditions except the control condition, the participants were given information on tax incentives related to various transportation modes.

All participants completed the posttest questionnaire and were debriefed by the experimenter.

The general opinion of the participants was that the simulation resembled a real-world situation. Thus, 98 percent of all participants felt that the simulation game was very much like the real-world situation. One participant felt that the simulation was only somewhat like real-world transit conditions, and one participant did not answer the question during debriefing.

Of the participants in the immediate-reinforcement condition, 70 percent changed their choice of transportation mode in the desired direction. Of the participants in the combined condition (immediate reinforcement and year-end incentives), 60 percent changed their choice of transportation mode in the desired direction. Only 30 percent of the participants in the control and incentive conditions changed their choice of transportation mode in the desired direction.

To test for differences in frequency of change among the four different conditions, a χ^2 test was used. The control condition was used to supply the expected value, which was compared with each treatment condition.

The difference in frequency of change between the immediate-reinforcement condition and the control condition was significant at the $p < 0.01$ level. The difference in frequency of change between the combined condition and the control condition was significant at the $p < 0.02$ level.

There were no significant differences in frequency of change between the control and incentive conditions or between the combined and reinforcement conditions.

Thus, the results of this experiment conclu-

sively support the experimental hypothesis. Participants overwhelmingly indicated their preference for the private automobile when asked to choose the mode by which they would commute from home to work. Those randomly assigned to the reinforcement and combined (reinforcement and incentive) conditions changed their opinion and chose, on a posttest, to commute by public transportation or by carpool. Incentives promising positive year-end consequences to appropriate behaviors were found to be ineffective in controlling driver behavior. The incentive and control conditions showed no differences between pretest and posttest choices.

It is becoming increasingly clear from experiments such as these that strategies of transportation behavior that use the explanatory powers of behavioristic theories promise to have real and lasting effects on the control of driving behavior and modal choice. On the other hand, predictions of greater control of driver behavior through the application of humanistic principles remain unsupported.

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Improving Traffic Safety in Rural Kansas

Roy C. Loutzenheiser, Greater Southwest Regional Planning Commission,
Garden City, Kansas

The traffic engineer's goals are to provide safe, efficient, and convenient movement of persons and goods on streets and highways and to provide adequate modal transition. In larger urban areas and along primary roads, this purpose has been met to varying degrees. However, in rural areas where most cities have populations of less than 5000, there is a lack of proper traffic-control devices and of traffic engineering studies and help. In southwestern Kansas, the population density is less than 4 persons/km² (10 persons/mile²), and there were no local traffic engineering personnel in the 41 150-km² (16 000-mile²) area. The Greater Southwest Regional Planning Commission created a position of regional traffic engineer in late 1976, which was funded through the Kansas Department of Transportation and the Federal Highway Administration. During the first two years, the engineer has (a) involved 29 of the 45 cities in federally funded

traffic-sign-improvement projects, (b) completed or initiated analysis at several high-hazard locations, (c) assisted local units of government to become aware of and obtain state and federal funds, and (d) worked with local government personnel in 18 of the 19 counties in the region to establish some local expertise in traffic safety. The primary benefit of the regional traffic engineer has been that traffic engineering has been brought to southwestern Kansas with a personal touch. The local units of government could not individually afford and, in fact, would not need a full-time traffic engineer. Under the commission assistance plan, the engineer is on call to all the local units, is governed by them, and is used by them. A regional traffic engineer is a means of providing expertise to rural areas.

"The manual presents traffic control device standards for all streets and highways regardless of type or class or the governmental agency having jurisdiction." This quotation (1, p. 3) from the Manual on Uniform Traffic Control Devices clearly states that control devices for all roadways should follow standards set in the manual. Typically, implementation of the manual standards is carried out by the traffic engineers of the applicable highway agency. The overall objective of the manual and the involved traffic engineer is the improvement of traffic safety throughout the country.

How is traffic engineering brought to rural America? Persons experienced in traffic engineering usually are located in larger urban areas and work for consulting firms, state governments, the federal government, or a few large cities. The need for a high concentration of traffic engineers in urban areas is obvious, because traffic problems usually relate directly to the size of the population. The result is improved roadway uniformity, safety, and efficiency, primarily where the higher concentration of people occurs. However, a continuing problem in rural areas, particularly those that have very low population densities, is the lack of traffic engineering studies and help. A major concern now is how to properly control the traffic in rural America. This paper describes how traffic engineering was more efficiently brought to southwestern Kansas. By using a grant from the federal highway safety fund, the Greater Southwest Regional Planning Commission (GSRPC) created the position of regional traffic engineer (RTE) to provide personal service to a part of rural Kansas.

TRAFFIC ENGINEERING IN SOUTHWESTERN KANSAS

Before 1977, there was no locally based traffic engineer in southwestern Kansas and, in that year, the membership directory of the Institute of Transportation Engineers listed 31 such professionals in the state. An RTE for the Chikaskia, Golden Belt, and Indian Hills (CGI) Regional Planning Commission moved to Pratt, which is about 208 km (130 miles) from the center of the Southwest Region, in December 1976. The next closest traffic engineer was in Wichita, another 120 km (75 miles) from Pratt. The Kansas Department of Transportation (KDOT) headquarters is in Topeka, about 480 km (300 miles) from the center of the region. Only half of the counties in southwestern Kansas have licensed county engineers.

In 1976, KDOT administrators were faced with the problem of providing better traffic engineering throughout Kansas. It was obvious that most of the communities had few if any traffic-control devices and that many of those were nonstandard. The options for improvement were

1. To continue to use the one KDOT field engineer and the consulting firms that had direct contacts with the local governments,
2. To retain one or more consulting firms to handle the state or regions of the state, or
3. To use highway safety funds available through the regional traffic engineering assistance program and hire an RTE.

With cooperation from the Federal Highway Administration (FHWA) division office, the third option was chosen. RTEs were hired by two of the seven regional planning commissions and were funded by KDOT and FHWA for a 3-year period. The concept of the RTE is similar to that of the circuit rider (2).

The specific objectives of the RTE project for the southwest region were

1. To upgrade the traffic-control devices in the region, preferably by compliance with the Manual on Uniform Traffic Control Devices;
2. To locate, analyze, and recommend improvements for highway locations having high hazard rates;
3. To ensure that each county and city is aware of the funding assistance available via the state highway safety program and to coordinate the use of these funds in the local areas of greatest need;
4. To increase the traffic engineering capabilities of personnel within the region by promoting the training program funded by the state highway safety program; and
5. To exhibit the benefits to be derived from traffic engineering expertise through retention of a traffic engineer on the GSRPC staff to serve the region.

At the state level, if all goes well, future state funding for RTEs will be applied to other regions and, eventually, there will be 12 RTEs. As stated in objective 5, the local units of government will ultimately finance the RTE positions.

The remainder of this paper presents the accomplishments of the RTE program through September 1978 (3), and briefly discusses the monetary benefits to the local units of government.

A LOOK AT SOUTHWESTERN KANSAS

The region (see Figure 1), has a population density of about 3.2 persons/km² (8.4 persons/mile²) and a total area of about 41 150 km² (15 900 mile²). The area represents 19.4 percent of the state, but the population (1977) of 133 341 represents only 5.7 percent of that of the state. The degree of ruralism is illustrated further if the populations of the three largest cities are omitted: Without the populations of Dodge City, Garden City, and Liberal, that of the region is 81 012 [a density of 2.0 persons/km² (5.1 persons/mile²)]. As shown below, 39 of the 45 incorporated cities have populations of less than 3000 people. Most of the counties (12 of the 19) have fewer than 5000 people.

Category	Item	Population	Total Population for Category
A	Garden City	19 252	65 138
	Dodge City	17 805	
	Liberal	15 272	
	Scott City	5 079	
	Ulysses	4 584	
	Hugoton	3 146	
B	15 cities	1 000-2 999	23 624
C	7 cities	500-999	5 038
D	17 cities	0-499	488
E	Nonurban		39 053
Total for region			133 341

The present economy is primarily agricultural; the cities provide goods and services in support of the agricultural industries. Manufacturing is increasing, and many county seats are seeking light industry. Also, tourism is increasing. Personal income for many persons is dependent on farm output and, therefore, fluctuates frequently.

The terrain is relatively flat, and the lack of trees causes it to appear even flatter. The flat topography is interrupted by frequent dips into small river valleys. Sunshine is abundant, and there is little rainfall [about 46 cm/year (18 in/year)]. Winds are almost continuous and gusts frequently exceed 48 km/h (30 miles/h).

The basic mode of transportation is the motor vehicle, including a large number of trucks. However, general aviation is increasing and most county seats have landing

Figure 1. Area covered by Greater Southwest Regional Planning Commission.

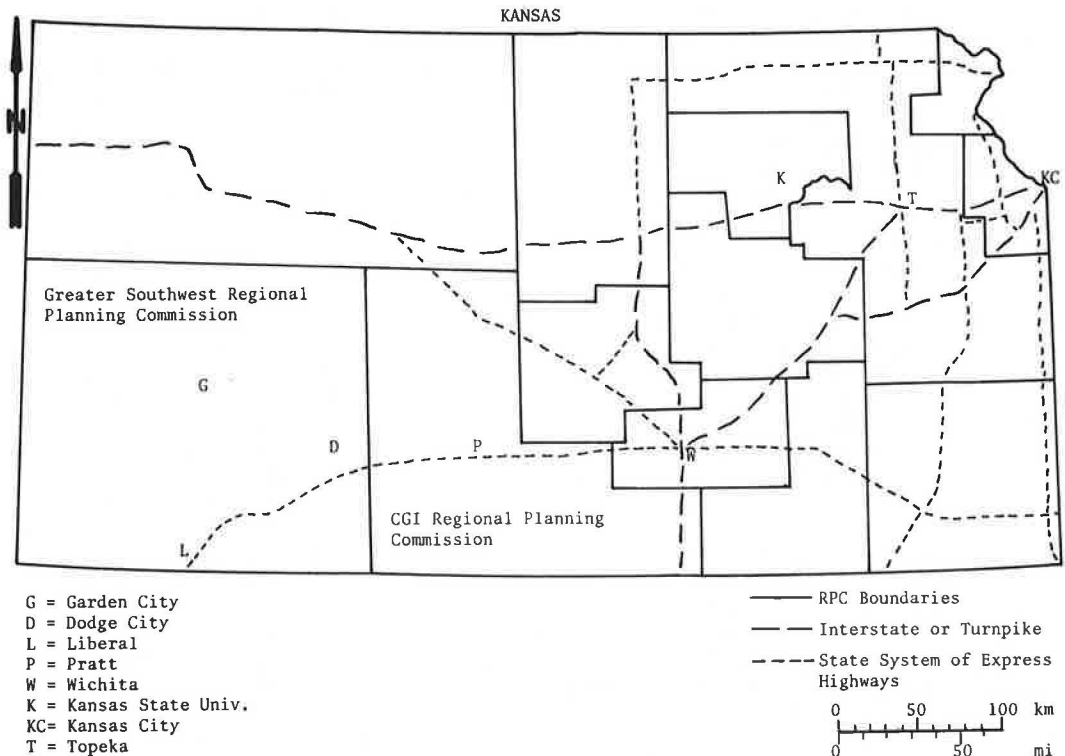


Table 1. Traffic accidents in southwestern Kansas: 1971-1977.

County	1971	1972	1973	1974	1975	1976	1977
Clark	65	50	64	39	62	46	54
Finney	714	622	624	684	893	918	927
Ford	422	834	911	717	825	813	887
Grant	134	122	109	115	147	165	191
Gray	99	106	96	96	83	82	114
Greeley	30	26	18	6	46	52	48
Hamilton	51	51	55	64	72	81	82
Haskell	79	83	85	77	74	106	95
Hodgeman	81	69	84	79	54	64	54
Kearny	83	66	78	52	87	73	107
Lane	59	62	52	57	68	74	70
Meade	99	90	114	102	116	80	108
Morton	40	34	34	47	71	68	90
Ness	131	135	122	113	108	117	110
Scott	136	142	135	137	169	163	180
Seward	569	588	591	618	659	701	741
Stanton	36	53	33	44	26	47	46
Stevens	89	90	100	108	99	127	141
Wichita	60	41	75	53	22	37	49
Total	2977	3264	3380	3208	3681	3814	4094

fields. The airports at Dodge City, Garden City, and Liberal have limited commercial service. Some commercial bus lines traverse the region, but cross connections are poor and nine of the counties have no commercial bus service at all. On Amtrak, eastbound and westbound trains stop at Garden City and Dodge City once each day, but the late night and early morning stops are inconvenient.

There are about 42 700 km (16 500 miles) of roads in the region; about 10 percent are federal-aid primary system roads and another 20 percent are federal-aid secondary. Except for a few sections in several cities, all roads are two lanes wide; they range from high-quality two-lane pavements to narrow dirt roadbeds. Even some sections of U.S. routes are narrow [6.7 m (22 ft)] and without shoulders. The region has truck climbing lanes in two locations and two grade-separation structures (one at a highway-highway crossing and one at a highway-

railroad crossing). There is no Interstate roadway in the region.

The 1976 annual motor-vehicle travel in the region was estimated to be almost 1.6 billion vehicle-km (1 billion vehicle miles). Several urban roads have average daily traffic (ADT) counts of more than 10 000 and, on several rural primary roads, the counts exceed 5000. However, many primary roads have counts of less than 500. In many cases, more than 20 percent of the ADT is composed of heavy commercial trucks. Some secondary roads near urban areas have ADT counts of 500 but more have counts of 50-200.

In 1977, there were 4094 motor vehicle collisions (a 7.3 percent increase from 1976) involving 10 553 persons. Of these persons, 64 were killed and 1360 sustained some injury. Table 1 shows the number of accidents per county for 1971-1977; the totals for the region as a percentage of the state totals are shown below.

Year	Percentage
1971	5.5
1972	5.3
1973	5.7
1974	6.0
1975	5.9
1976	5.8
1977	5.7

APPROACH TO IMPROVING TRAFFIC SAFETY

How does one go about improving traffic safety in an area of 41 150 km²? Obviously, KDOT has spent much time and money making physical improvements and implementing various control devices on the state highway system. Counties that have professional engineers, in general, have relatively safe secondary roads, but off-system roads generally lack the basic controls. The three largest cities in the southwestern region have city engineers; however, these persons have had little train-

ing in traffic engineering. In fact, the city police departments are responsible for most of the traffic-control devices. Most local units of government have no person assigned to utilization of traffic-control devices.

The obvious finding is that, in the southwestern region, no person (except for a few from the KDOT district office) is trained in any phase of traffic engineering. This is quite apparent when one drives through the region: Many signs are improper (e.g., yellow yield signs); signs are improperly installed [most are less than 1.5 m (5 ft) high]; most intersections (rural and urban) are uncontrolled; the few signalized intersections have out-dated equipment in locations difficult to see. There has been a lack of real communication between local officials and those concerned with traffic engineering. Most cities and counties have a copy of the manual, but few officials have used it.

Thus, communication is the key link for improving traffic safety in rural Kansas. Communication needs include

1. Highway and traffic-control-device standards and what they mean,
2. Recent changes in applicable standards,
3. Awareness of federal and state funding programs,
4. Short courses and educational opportunities, and
5. Better dialogue between local officials (nonengineers) and KDOT officials (engineers).

The first task was to have the RTE serve as a liaison between the local units of government and KDOT. Because many traffic improvement projects require much time and effort, the second task was to find effective traffic safety projects that were low cost and would require only short implementation times. This would allow rapid initiation of projects in local units and ensure that the public could soon see the improvements. Once the early projects were initiated, then efforts could be shifted to larger, more time-consuming projects.

Traffic-Sign Improvements

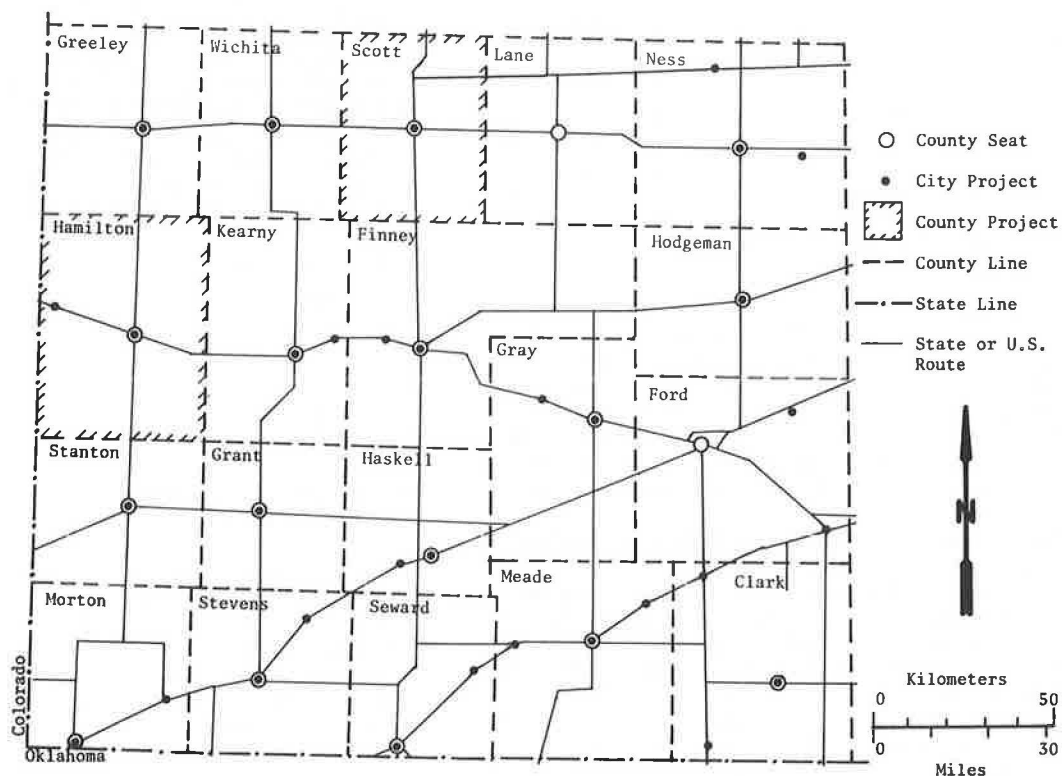
The first major effort at improving traffic safety was to up-date traffic signs. Because most on-system highway signs are provided through federal funds, the effort was directed toward off-system signs. The cities, for the most part, lacked any engineering capability and, because of their higher traffic volumes, were in greatest need of help.

Inspection of several cities in southwestern Kansas showed that existing traffic signs did not generally meet current standards and were not being properly maintained. Most signs were an improper color or nonreflectORIZED or both; many had been vandalized or were improperly located. Because sign maintenance in small cities has been carried out or supervised by the county engineers, mounting heights were frequently less than 1.5 m (5 ft). The major lack of specific signs included those reading STOP, YIELD, SPEED LIMIT, and DIP and those related to schools.

The federal-aid safer-roads demonstration program was established to improve safety on off-system roads and is funded with 90 percent federal and 10 percent local monies. The urban department of KDOT had made these funds readily available to all incorporated cities for off-system improvements, provided a proper engineering study was prepared. Before the RTE position was created, only four cities had applied and had been approved for these funds. But after the RTE contacted other city and county officials and encouraged them to request funding from KDOT, 29 cities and 2 counties applied and were approved for sign projects. A total of 33 out of 45 cities and 2 of 19 counties in the region now are involved or have completed sign projects (see Figure 2).

It has been the RTE's job to prepare the sign surveys, to assist the cities in submitting the projects, to coordinate installation, and to serve as a liaison between KDOT and the cities when needed. In preparing the surveys,

Figure 2. Off-system traffic-sign improvement projects.



the RTE was aware that local city budgets were very tight and, therefore, included only essential signs. Excess signing would probably create more hazardous conditions in the future because most cities could not afford high maintenance costs. Occasionally, it was necessary to convince local officials that standards were made for their safety and that the essential signs were really needed.

Seven of the 29 cities in which surveys were made have ordered or are now installing signs. Eleven cities, in addition to the original 4, have completed sign installation. The time required from initial request to beginning of implementation is less than a year and to completion is less than 18 months.

One indirect advantage of the sign projects has been that local officials are beginning to think about traffic safety and to know how to communicate with KDOT directly. Also, as signs are being installed, street superintendents are becoming familiar with the manual. New signs also help dress up a city and give more pride to the people.

High-Hazard Locations

High-hazard locations have been more difficult to determine and to analyze. Before creation of the RTE position, the cities hired a consulting firm or requested assistance from their county department of transportation or KDOT, who were usually slow in responding because of their backlog of work. In most cases, however, nothing was done beyond local complaints. The RTE's task was to first determine the locations and to then establish priorities for remedial studies. Hazardous locations, obviously, are locations that have high accident experiences; however, locations that have high accident potentials can also be classified as hazardous. Such include (a) bridge sites, (b) railroad-highway crossings, (c) signalized intersections, and (d) non-controlled intersections that have high traffic volumes

or reduced visibility or both. Certain crops, such as corn, frequently create serious problems on a seasonal basis.

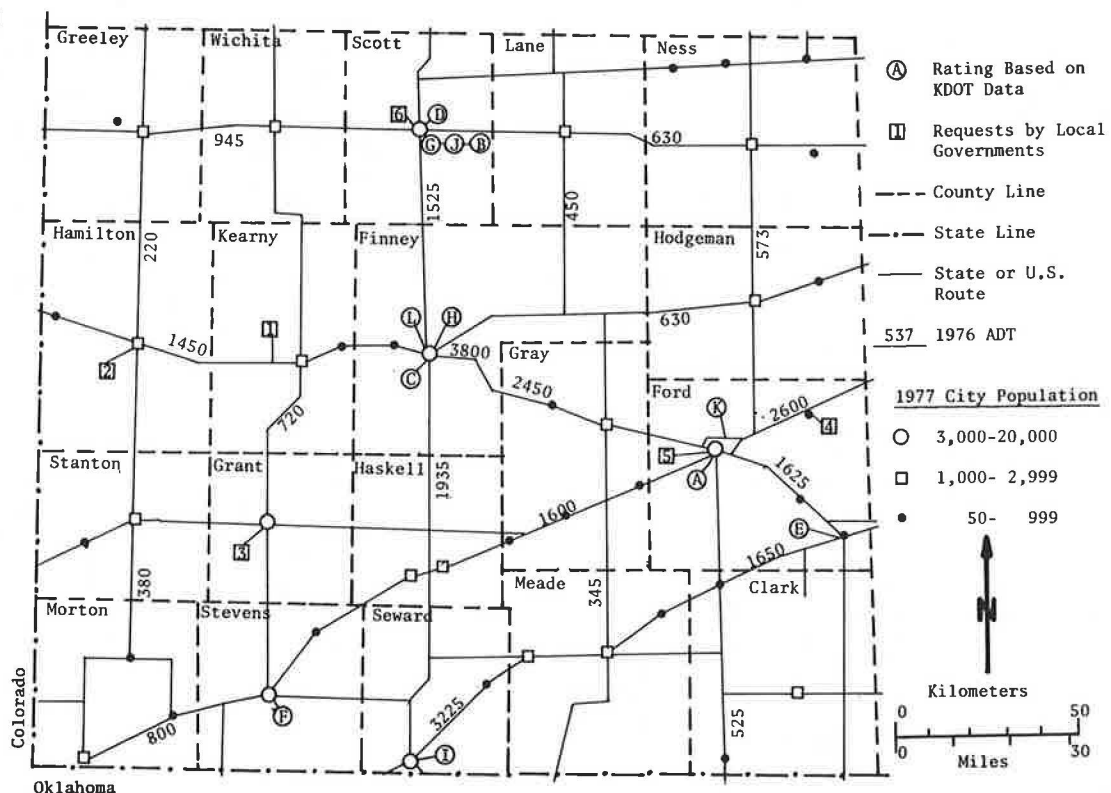
As a first source of information about high-hazard locations, a pin board that showed the locations of all fatal accidents from 1972 to 1977 was prepared. Unfortunately, this display did not show specific problem locations because most fatal accidents are isolated cases. The number of fatal accidents per year for the region ranged from 30 to 50. This means that, on the average, each year there is one fatal accident within an area of about 1050 km² (405 mile²). Vehicle accidents (all types) are also infrequent and average one in an area of about 12 km² (5 mile²).

Another source of data is the KDOT computerized accident-record file. By using the KS-HYSIS program (4), regional high-frequency accident locations for state highway sections were obtained for 1976 through May 1978. This gave a list of the 12 highest-frequency locations according to a rating based on the accident rate and a critical factor. The rating is determined as follows:

1. For each year, route sections are ranked by accident rate and by critical factor,
2. Each section is assigned points according to its rank by accident rate and its rank by critical factor (+3 if highest or second highest, +2 if third to fifth, +1 if sixth to tenth, 0 if eleventh to fifteenth, -1 if below fifteenth); therefore, a section could receive up to 6 points/year (if it were first or second in both accident rate and critical factor),
3. The points are totaled for the 3-year period, and
4. The rating is based on (first) the number of years the section did not have a negative value and (second) its total number of points.

All locations found were within city limits. Figure 3 shows the general locations; the "A" location had the highest priority, the "B" was second, and so on. Popu-

Figure 3. High-hazard locations in southwestern Kansas.



lation and traffic flow appear to be major factors in determination of the locations. Fourteen of the 19 counties do not have any high-hazard locations. However, it should be noted that this analysis compares lengths of state routes and does not consider point locations or off-system locations.

A third source of data about high-hazard locations was in the form of comments and requests from local units of government, especially law enforcement officials. Local governments have requested analysis of six locations. These locations tend to reflect recent accidents that have received public attention. It was apparent that local units of government had been aware of their needs and that some had requested state assistance. The problems of applying for remedial funds, apparently, had been twofold:

1. KDOT did not have sufficient staff to prepare the engineering studies or the local units did not have the technical ability to communicate their needs in engineering terms and
2. City populations and traffic movements were low; therefore, the question of state priority was raised.

The obvious role of the RTE was to serve as a translator for the local units of government—to express the local needs in engineering terms.

In establishing the priority order for preparing high-hazard studies, several factors were considered:

1. There had, in fact, been few accidents at the identified hazardous locations and, therefore, the highest-priority locations were not significantly higher than the lower-priority ones.
2. Studies requested by local units of government received higher priority because local traffic records (if they existed) were more accessible.
3. Locations that appeared to have minimal opportunity to receive state or federal funds and anticipated high remedial costs were given lower priority because few local governments could bear high traffic-safety costs.
4. Locations that had higher ADT counts received higher priority.
5. Because the services of the RTE are for the entire region, attempts were made to distribute the studies equitably throughout it.

Because the local requests were received before the KDOT data were analyzed, the six local requests shown in Figure 3 received attention first. Some of the requests received related to locations that did not have a recent accident history and had a low ADT count. These less important locations were filed for possible future action. Studies have been completed at sites 1, 2, and 4 and begun at sites 3 and 5. Analysis of site 6 will begin in early 1979.

At the intersection of US-50 and US-270 (site 2) in downtown Syracuse, out-dated traffic signals on vertical posts (at all four corners) provided poor traffic control because the signals were very difficult to see. Of the 19 accidents that occurred in the 3-year study period, only one involved an injury and there were no fatalities. However, the average accident rate was 21 accidents/10 million vehicles. Contracted costs for signal improvements are about \$40 000, which would be difficult for a city of 1995 people to finance. Through proper engineering documentation, KDOT has agreed to provide 90 percent funding (federal) for the improvements (which should be completed by early 1979).

The Syracuse project made evident to local officials that KDOT is willing to partially fund traffic-safety proj-

ects in rural Kansas. Improvements along US-50 by KDOT have made the entrance to Loucks Park safer (site 1). It is anticipated that proposed signal improvements at sites 3 and 6 will also receive state and federal assistance.

Traffic analyses by the RTE have been performed not only to obtain funds from KDOT but also to justify local expenditures and improvements to local units of government. These studies would normally have been prepared by consulting engineers (at a cost to the local unit) or probably omitted and action taken without proper guidance. The special studies have included the evaluation of

1. The traffic flow and parking facilities around Dodge City High School (Ford County),
2. The need for a crossing guard at a Garden City elementary school (Finney County),
3. The traffic flow around the Scott City park (Scott County),
4. The need for positive control at a minor railroad-street crossing in Spearville (site 4),
5. The traffic flow on a federal-aid secondary route at a feed-lot entrance used by numerous trucks (Haskell County), and
6. The need for flashing school-speed-limit signs at a suburban elementary school (Finney County).

Awareness of Funding Assistance

One objective of the RTE was to assist local units of government in obtaining federal and state funds and to keep them aware of available funding sources. All city and county officials were advised concerning funds for traffic-sign improvements on off-system roads. As a result, more than 70 percent of the incorporated cities applied for such funds. County officials were also informed concerning funds for pavement striping and for off-system road improvements; however, requests for assistance were few. In general, the county officials were concerned with the condition and the maintenance of the road surface only, because of limited funds. The GSRPC mailed a monthly newsletter that included an article on traffic-safety projects and funds to all local units of government. In addition to informing the local units, the RTE has continued to assist local officials in completing forms and to serve as liaison between them and state and federal officials. An initial problem was the determination of the best contact in each local unit of government: Should it be the mayor, street superintendent, clerk, police, or someone else? Also, it soon became apparent that written correspondence was usually shelved and that telephone or (better yet) personal contact was necessary.

Training Programs

Development of local expertise in traffic safety was another objective. Through contact with local government personnel in projects such as the traffic-sign improvements, limited training in traffic safety was provided by the RTE. During the first year, there were projects in 16 of the 19 counties and, through working with these projects, the local officials received some personal training.

Efforts to have local personnel attend short courses in traffic engineering at Kansas State University have been unsuccessful. The problems appear to be that

1. The university is too far away [320-560 km (200-300 miles)],
2. The courses are too long—for example, street

superintendents are often responsible for all other city physical operations,

3. There is apathy toward east Kansas, and
4. The content of the courses is not rural-directed enough.

As a result, the GSRPC submitted an application for a highway safety grant entitled "Traffic Safety Training Program in Southwest Kansas" that would have offered 2-day training courses at one or more locations within the region and presented an overview in traffic safety to serve as a stepping stone for the short courses at the university. It was felt that such a course would encourage more participation from southwestern Kansas in the university courses; however, it appears that the application has been rejected.

Benefits to Local Units of Government

To be a member of the GSRPC, each local unit of government is charged \$0.10/capita/year; this includes services for all areas of community development, not only traffic safety. Therefore, city dues per year ranged from \$6 to \$2000 and county dues ranged from \$200 to \$2500. Thirty-nine of the cities paid less than \$300/year. The remainder of the commission staff finances come from state and federal grants, such as the RTE grant. Current plans are for the commission to absorb and finance the RTE's position without change in membership dues. The RTE grants have ranged from \$36 800 to \$41 400/year. Labor costs have been about 75 percent, and travel and engineering equipment have been about 8 and 4 percent, respectively. The first-year grant included about \$5000 extra for special engineering equipment (counters, radar, and such) and office equipment.

The benefit/cost ratio for the local units is very high. Most traffic-sign projects have required at least 20 hours of the RTE's time, and the larger projects have required more than 50 hours. The costs (materials and labor) of the sign projects, excluding the RTE's time, have ranged from \$1000 to \$15 000. In addition to direct project help, the RTE is on call all year and keeps the local officials aware of potential funds.

The primary benefit, however, cannot be quantified. The RTE position has brought traffic engineering to rural Kansas. The number of cities and counties participating in traffic-improvement projects during the first two years has been 34 of 45 and 5 of 19, respectively. Although direct comments from local officials and citizens have been few in number, it is apparent that the RTE position is well received because of the participation of local units of government and the support by the GSRPC.

RESULTS

Rural areas of Kansas, such as the southwest, were not receiving proper traffic engineering improvements because of the lack of local traffic engineering expertise. To offset this need, KDOT established a traffic engineering position in the GSRPC. The RTE was to provide assistance to the local units of government.

Some specific results in the area of traffic safety include

1. Making local units of government aware of traffic safety and the need to meet established standards,
2. Making local units of government aware that KDOT is concerned about traffic safety in rural Kansas and that federal monies are available for assistance,
3. Identifying contact persons in most local units of government and assisting them in becoming involved with traffic safety,

4. Assisting 29 cities and two counties in traffic-sign-improvement projects for off-system roads,

5. Providing an engineering study to assist the city of Syracuse to obtain federal monies for signal improvements,

6. Preparing recommendations for school traffic-safety improvements for several units of government, and

7. Providing traffic counts and speed data for several units of government that would allow them to evaluate possible improvements.

The RTE position has been supported for three years with federal funds. It is anticipated that the local units of government (through the GSRPC) will now be aware of the benefits of a traffic engineer and willing to continue such a position with local funds. The executive director of the GSRPC has been planning for such a step, and the RTE position now includes the total area of transportation rather than only traffic safety. This includes traffic safety, public transportation, airport planning, and general civil engineering and systems analysis. A special task for the RTE has been to serve as group coordinator of special projects—traffic safety, airports, public transportation, law enforcement services, and emergency medical services. The integration of traffic safety into a comprehensive public safety program has been initiated.

Because there is only one RTE, all local units of government do not receive personal assistance all the time. However, thus far, local units in 18 of 19 counties have received direct assistance and have had traffic-safety projects. Because no local unit of government could individually afford or, in fact, would need a full-time traffic (or transportation) engineer, the RTE concept has provided a feasible alternative that is locally controlled yet capable of communicating with the state and federal governments. In return, the state does not need to create a new position or spend extra money. A regional traffic (or transportation) engineer is an answer to providing more direct expertise to rural areas.

ACKNOWLEDGMENT

I wish to thank the GSRPC for the opportunity to serve as their regional traffic engineer and KDOT and FHWA for providing the grant. It has been a challenging and rewarding opportunity. The opinions, findings, and conclusions expressed in this report are mine and not necessarily those of the GSRPC, KDOT, or FHWA.

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