

ATTENDANCE STRUCTURE AND ECONOMIC IMPACT OF THE NATIONAL ROAD FESTIVAL

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Abstract: The National Road Festival is a four-day event scheduled in mid-May along a 90-mile section of U.S. Route 40 within the southwestern Pennsylvania counties of Washington, Fayette, and Somerset. This 26-year tradition commemorates America's first federally funded highway and includes over 30 recreational sites and community attractions. The Festival provides a variety of music and dance events, reenactments, food and craft outlets, and two wagon trains that slowly, but surely, covered most of the Pike. In 1997, the National Road Heritage Park requested Penn State's assistance in establishing the size and distribution of the Festival's attendance, its economic impact, and recommendations on future operations.

A series of three Festival studies (1997-99) has shown a fairly consistent attendance pattern, ranging from 50 to 52 thousand site days of usage each year. Non resident attendance was 36% of this total. The 90-mile system is divided into three sections, with the central component capturing over 60% of the total attendance. Annual regional expenditures from residents and non residents averaged \$1.1 million, with nearly 50% originating from non residents. Regional impacts from the non resident trade averaged \$1.2 million annual. The Festival is closely aligned to the region's heritage but could benefit from added planning and coordination.

Introduction to the Study

The National Road Festival is unique in terms of its own heritage and complexity. This event commemorates America's first federally funded highway and covers the 90-mile section of U.S. Route 40 within Washington, Fayette, and Somerset Counties, known locally as the National Pike. The 1999 Festival marked its 26th year and spanned over 30 sites and communities along its route.

Starting in 1997, a series of annual studies was initiated by Penn State University for the purpose of determining the size and character of this audience and the impact of the event upon the region's economy (Strauss and Lord 1997, 1998). Through the support of the Pennsylvania Center for Rural Pennsylvania, Pennsylvania Department of Recreation and Conservation, and the Allegheny Heritage Development Corporation, the series included the 1997, 1998, and 1999 Festivals.

Literature Review

The economic impact of tourism has been investigated in the context of various regional and recreational activities. Stoll et al. (1988) examined the specific impact of recreational boating within the Texas economy. Their data base was developed from a mailed survey of companies in the boating industry. The ratios of total sales impact to direct impact (Type II multipliers) for different elements of the boating trade ranged from 2.3 to 3.3. The multiplier for the entire industry was 2.8.

Fesenmaier et al. (1989) analyzed the economic impact of all recreation travel along the Texas Gulf Coast. Texas residents were surveyed regarding their regional travel expenditures, with the average placed at \$57/visitor day. Total annual regional expenditures were \$586 million. Regional and state-wide impacts were estimated with a Texas input-output model and were placed at \$1.2 billion and \$1.9 billion, respectively.

Johnson et al. (1989) identified the economic impact of tourist sales within six key industries along the Oregon coast. Tourist sales receipts were obtained from a survey of regional businesses and were treated as direct impacts. Induced impacts were estimated on the basis of the personal and business income generated by the initial sales. However, indirect impacts were not included. The proportion of income developed from direct sales ranged from 0.16 to 0.92. The smallest coefficients were in service stations and retail sales, with the largest in the amusement, food service, and lodging sectors.

Bergstrom et al. (1990) determined the economic impact of non-resident state park visitors within several state economies. Their work was based on the national-level Public Area Recreation Visitors Study (PARVS) and used an IMPLAN (Impact Analysis for Planning) model for economic analyses. The Type II multipliers for the various states ranged from 1.80 to 2.46, with the size dependent upon the complexity of the state's economy.

Strauss et al. (1996) identified the economic impact of tourism within a nine-county region of Pennsylvania during 1995. Tourism was described on the basis of 26 activities, with total attendance amounting to 19.6 million visitor days. Non-resident visitors accounting for 41% of total attendance and \$284 million in regional expenditures (59% of the total). An IMPLAN model of the region established the direct sales impact of non-resident tourists at \$191 million and secondary impacts (indirect and induced) at \$369 million. From this, \$190 million was directed to wages and salaries in support of over 14,000 annual jobs. Seventy percent of the direct sales impact was placed in the lodging and food service sectors.

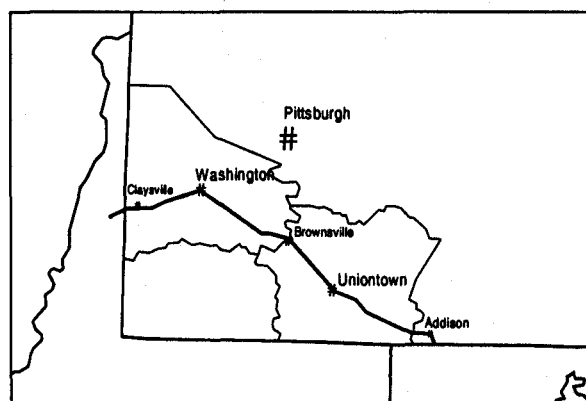
Certain variations are evident among these tourism studies in terms of their definitions of impact and economic modeling efforts. The more recent studies address the direct, indirect, and induced impacts of tourism expenditures, and are typically based upon an input-output model of the regional economy.

Objective and Procedures

The series of three annual studies identify the socio-demographic characteristics of the Festival audience and their related economic impact within a two-county region consisting of Fayette and Washington Counties (Figure 1).

Specific objectives of the project include:

- (1) Identify the resident and non resident attendance along the major sites during the four-day festival.
- (2) Evaluate the recreational preferences and patterns of this recreational audience.
- (3) Determine the expenditure profiles of resident and non resident visitors attending the festival.
- (4) Establish the economic impact of the non resident tourist expenditures specific to the two-county region.
- (5) Identify any major changes between the 1997, 1998, and 1999 Festivals.
- (6) Provide recommendations on the organization and



operation of future festivals.

Figure 1. Map of the National Road in Southwestern Pennsylvania.

For purposes of economic impact and demographic measures the region consisted of two counties, Fayette and Washington Counties. The sample design along the 90-mile "Pike" used a system of 21 Festival sites for gathering attendance. A field research unit, consisting of four to five persons, made attendance counts and conducted random interviews of visitors at each of these sites. One team member covered the entire four-day event for the collection of attendance data. Our first two-years of study had shown that most non resident visitors arrived on Saturday and Sunday. Accordingly, visitor surveys were only scheduled on these days. Survey protocol introduced the study to candidate members of the audience, identified the types of information requested, and asked whether the individual was willing to participate in the survey. The interviews secured the geographic origins, group size and composition, allied demographics, recreational patterns, and expenditure patterns of the visitors. From 250 to 300 surveys were obtained each year.

Attendance at the National Road Festival was developed specific to the 21 sites, for each of the four days, and during four daily time periods, 9 AM - Noon, Noon - 3 PM, 3 PM - 6 PM, and 6 PM - 9 PM. Attendance was estimated as the interviewers entered the various sites, with one team member assigned to collecting attendance at all sites on each day. Over 100 attendance measures were taken annually at the various sites during each of the festivals. These were entered to a matrix specific to their sites, dates, and time periods. These "point estimates" were expanded within their three-hour time period using a turnover rate calculated for the specific audience. The turnover rates were based on the average length of stay for the audience, as obtained from the on-site interviews. Basically, the turnover rate represented the division of the time period by the average length of stay. Comparisons of the three-hour totals among the various sites and between the various days identified the trend of attendance among the daily time periods and over the four days of the festival. These comparisons provided the means for estimating the attendance during time periods lacking any "point estimates".

Attendance was expressed in terms of "site days", representing one person's visit at a particular site during some portion of the day. As such, one person could register more than one site day on any given day by visiting a series of festival sites. Attendance was stratified into residents and non residents on the basis of the division found among the on-site interviews.

Expenditure profiles were developed for resident and non resident visitors at the various sites. Persons interviewed provided expenditures for their group and the entire day. If the person (or group) stayed overnight in the region, they were asked for their expenditures over the 24-hour period. If the person (or group) was on a day-trip, they were asked for current and projected expenses during that day.

Expenditure profiles were stratified by resident and non resident visitors and included the money spent at the site, plus the average of all other expenses, as divided by the average number of sites visited per day. This amount was divided by the group size in defining the average expenditure per person per site day. A weighted average expenditure/site day was developed among all sites, with the individual site attendance used as the weighting factor. Total expenditures for the festival were established through the multiplication of the weighted resident and non resident averages by their respective total festival attendance.

Economic impact was generated from the Impact Analysis for Planning (IMPLAN) system. IMPLAN is a computerized data base and modeling system that provides a regional input-output analysis of economic activity. It is particularly well suited in describing the economic impacts from tourism. This input-output model was developed by the USDA Forest Service and the Federal Emergency Management Agency to estimate the regional impact of management plans for national forests. It is commercially available from the Minnesota IMPLAN Group, Inc. on a fee basis (MIG, Inc. 1996).

Economic impact was determined from the regional expenditures made by non resident visitors to the festival. Essentially these expenditures represent the "export" of recreational services to persons outside the region. Although the expenditures made by resident visitors are identified within the study, these amounts are not credited as a source of tourism impact. Resident expenditures are an induced impact from other sectors of the economy, with their wages and salaries originating from these other sectors.

The economic impact of non resident expenditures are identified in terms of (1) the direct impacts from sectors serving non resident visitors, (2) the indirect impacts from other sectors having commercial linkages with direct sectors and, (3) the induced impacts from the regional expenditure of wages and salaries earned in the direct and indirect sectors. The wages and salaries that originate from the direct and indirect employment are then credited to the festival. Within this study, indirect and induced impacts are combined as "secondary impacts".

Impacts were also specified by the source of impacts, or festival sites, and by the placement of impact, in terms of economic sectors within the region. This provided a ranking of impacts by sites and sectors. In addition, the

latest version of IMPLAN provided an expanded social-accounting matrix that identified three levels of household income supported by festival-based employment and the flow of tax and transfer payments between the household and business sectors and the state/local and federal government

Results

Attendance

Total attendance at the 21 sites was fairly consistent on a year-to-year basis, ranging from 51,000 to 52,000 site days during the three study years (Table 1). A "site day" represented one person's visit at any given site during some portion of the day. Thirty-six percent of the site day visits were made by non residents.

The attendance on Thursday and Friday was about 12% of the total for the four-day festival (Table 1). The more active sites on these two days were: Scenery Hill, Addison, Claysville, Thistlecrest, Beallsville, Fort Necessity, and Waleski's Horse Farm. The primary activities at Addison and Claysville on the first two days were the evening wagon train encampments. The primary draw at Scenery Hill and Thistlecrest was the wide selection of antique and gift shops.

Table 1. Comparison of the 1997, 1998 and 1999 National Road Economic Impacts.

Year	Site Days				Non Resident Visitor Days		
	Attendance	Non Resident Attendance	Percent Non Residents	Average Expenditures	Sites per Visitor	Non Resident Attendance	Average Expenditures
1997	50,706	19,535	38.5%	\$22.32	1.86	9,846	\$44.29
1998	50,479	17,623	34.9%	\$19.02		11,022	\$30.41
1999	52,372	17,734	33.9%	\$29.31		7,904	\$65.76
1997 - 1998	-0.4%	-9.8%	-9.3%	-14.8%	-4.3%	12.0%	-31.3%
1998 - 1999	3.8%	0.6%	-2.9%	54.1%	18.5%	-65.2%	116.2%

Year	Impacts					Multipliers	
	Total Expenditures	Direct Output	Total Output	Value Added	Employ.	Retained	Output
1997	\$436,023	\$405,343	\$1,108,791	\$646,052		93%	274%
1998	\$335,227	\$305,034	\$814,292	\$470,304		91%	267%
1999	\$519,783	\$455,782	\$1,260,560	\$738,985	25.2	88%	277%
1997 - 1998	-23.1%	-24.7%	-26.6%	-27.2%	-27.9%	-2.1%	-2.4%
1998 - 1999	55.1%	49.4%	54.8%	57.1%	59.5%	-3.3%	3.7%

The remaining 88% of attendance was on the weekend, with the lead sites being the National Pike Steam Show, Scenery Hill, Braddock Flea Market, Thistlecrest Farms, and Waleski's Horse Farm. On Saturday, the "top five" sites typically provided about 55% of the daily festival attendance and, on Sunday, the "top five" provided closer to 70% of the daily total. As a broad generalization, the primary activities at these lead sites were retail and antique shops, flea markets, and concession stands (Scenery Hill, Thistlecrest, and Braddock) and a variety of entertainment and special events (Waleski's Horse Farm, and National Pike Steam Show).

The logistical center of the festival was the central portion of U.S. Route 40, west of Uniontown and east of Washington (Figure 1). In most years, the eight sites from Thistlecrest to Brownsville provided nearly two-thirds of the total attendance.

In terms of non resident attendance, the lead site were Scenery Hill, Waleski's, National Pike Show, Thistlecrest, and S Bridge. These "top five", typically attracted 60% of the total non resident attendance during the four-day event. The "next five" included Braddock Flea Market, Beallsville, Addison, Nemaquin Castle, and Claysville, for an additional 30% of non resident attendance. As such, the "top ten" sites provided close to 90% of the non resident

visitations. Six of the ten were located in the central section of U.S. Route 40 (Figure 2). Attendance in "site days" was reduced to "visitor days" through an analysis of the fractional time spent by resident and non resident visitors at each of the 21 sites. By summing the fractional time spent at each of the sites, and covering all sites, the study placed the resident attendance within a range of 16,000 to 19,000 visitor days per year. For non residents, the range was between 8,000 and 11,000 visitor days per year (Table 1). For the most part, the lead sites under the visitor day measure were the same as those under the site day measure.

Visitor Use Patterns

Resident and non resident visitors were fairly similar in terms of their respective average lengths of stay at any given site, the numbers of sites visited per day, and their group sizes. The one exception was the longer length of stay per site among non residents (3.8 to 4.0 hours) as compared to resident visitors (2.6 to 2.8 hours). Non resident visitor typically visited from 2.2 to 2.6 sites per day, and had 2.6 to 2.8 people per group. Resident visitors averaged from 2.0 to 2.3 sites per day, and had the same approximate range in group size. During all three years, site visitors who had the shortest times per visit typically visited more sites per day.

Site Evaluation

Most of the resident and non resident visitors had a high rating of the various Festival sites and events. During all study years, evaluations of all sites and events by residents and non residents typically showed over 85% with "very good" ratings, 10% with "acceptable" ratings, and less than 3% with "poor" ratings.

Expenditures

The average expenditure per site day for residents ranged between \$14 and 17 for residents and from \$20 to 29 for non residents (Table 1). These were weighted average

expenditures from all sites, with the weighting based upon individual site attendance. For non residents, from 55 to 60% of their expenditures was directed to on-site purchases, 15 to 20% to food, about 10% to lodging, 5 to 8% to transportation, and less than 5% to miscellaneous categories. Non resident expenditures were higher than for residents due to the added amounts in on-site and lodging expenditures.

Total resident expenditures ranged from \$500 to 600 thousand during any one year of the study and, for non residents, the annual totals were between \$335 and 520 thousand (Table 1). In most years, the Festival generated just over \$1.1 million per year in total expenditures within the two-county region.

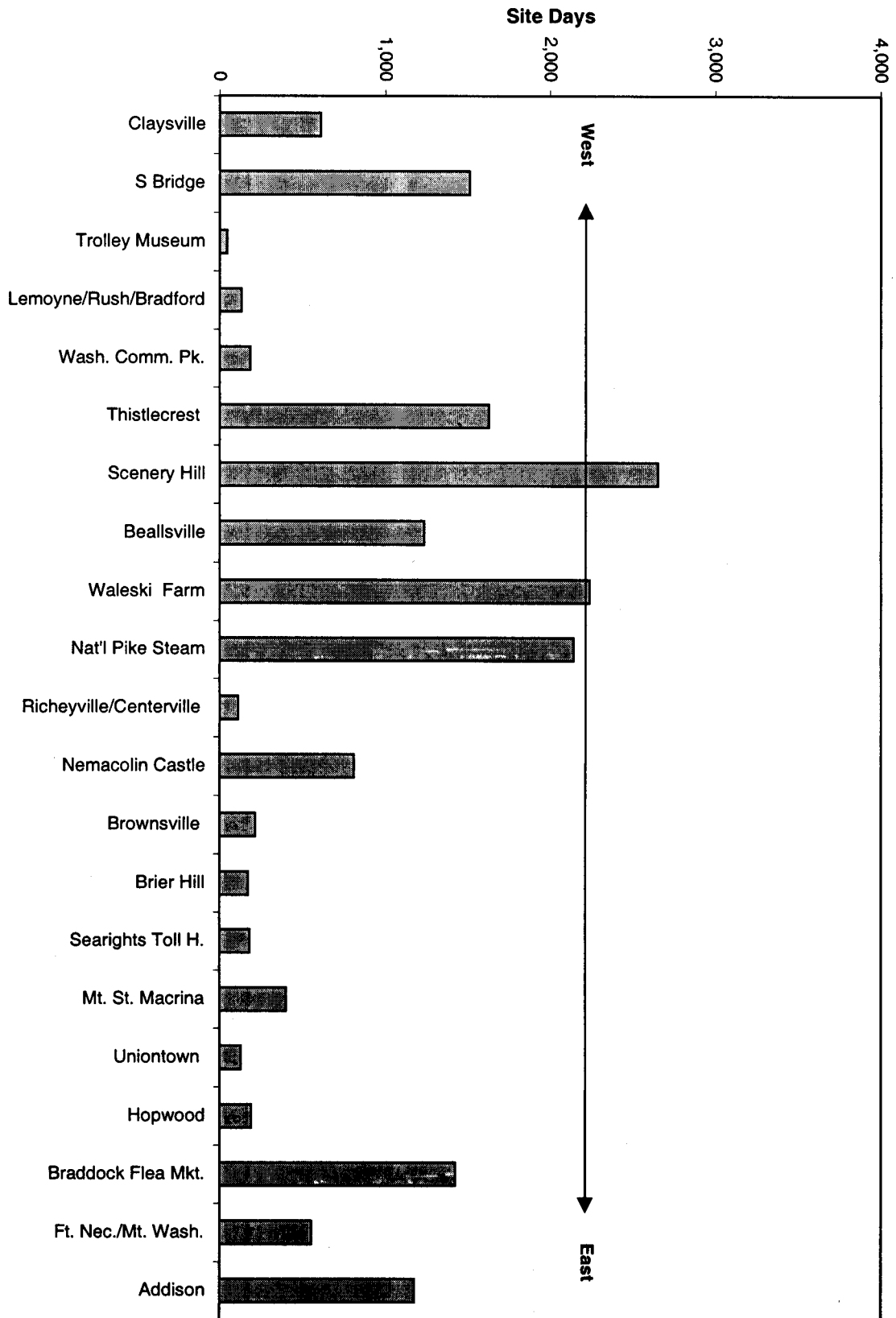
Economic Impacts

The regional sales impact from the four-day festival over the three-year period averaged just over \$1.0 million annual (Table 1). The annual impact patterns and distributions were fairly similar on a year-to-year basis.

During 1999 the total sales impact was \$1.3 million, with the direct impact at \$456 thousand and the secondary impacts at \$805 thousand. On a value added basis, the net impact was \$739 thousand. The salary and wage component of value added was \$447 thousand which, in turn, supported nearly 25 annual jobs on a full and part-time basis.

The placement of direct impacts in 1999 showed 59% in the Services group and 32% in the Wholesale and Retail Trade group. The secondary sales impacts were distributed over a wider array of groups, including Services (32%), Wholesale and Retail Trade (23%), Finance, Insurance, and Real Estate (20%), Transportation, Communications, and Utilities (11%), and Manufacturing (5%). For the most part, the secondary distributions followed the personal consumption pattern of the U.S. population (BEA 1990).

Figure 2. Total non resident visitor days by site/event for the National Road Festival, 1999.



Observations and Conclusions

The three Festivals had a fairly consistent economic character. Annual attendance, when measured in site days, was fairly constant, ranging from 50 to 52 thousand site days during each festivals. Non resident attendance was also consistent at 18 to 20 thousand site days. Although there were certain year-to-year changes, these were more the result of variations in the samples gathered in any one year, with the three year composite being a better measure of the overall set of events.

The following set of observations and comments were offered to the Festival organizers:

(1) There is a major disconnect between the various sites and activities along the 85-mile Festival Route.

The Festival is largely divided, geographically, into three parts. The first part, Claysville to Washington is the smallest in terms of sites and attendance. Although the town of Claysville has represented the western anchor to the festival route, there has been a certain loss of events and spirit in this community. The second part runs from Washington to Uniontown. Along this section there is a continuous series of Festival sites and recreational venues. This component of the Festival is the largest and most varied. The third section, from Uniontown to Addison, is somewhat unique in terms of its mountainous terrain and established sites. However, it really isn't until you arrived at Fort Necessity National Park that the festival is again formally advertised. Addison, at the eastern end of the route, personifies the Festival. Here is a small town's tribute to its own history and to that of the region. Their community spirit included four days of events; the Wagon Train encampment, Petersburg Toll House, the Methodist Church quilt show, community "pot-luck" dinners, the Firemen's Parade, and Sunday's 1860's baseball game.

Given these three sections of the Festival, and the various sites within each section, we did not find many "linkages" between the various sites within the Festival. Outside of the Festival brochure, there was a limited amount of information on the overall structure of the Festival and its focal points (i.e. sites and events). Potentially, some type of advertising standard, perhaps in the form of kiosks, might be used at the more popular sites within the Festival.

(2) Not all sites profit from the National Road Festival.

The general character of the National Road audience is not always well matched with the offerings of every tourist business. Several museums, craft shops, and antique outlets usually experience a decline in business during the weekend of the Festival. Several of the larger antique shops are now closed during the Festival weekend, contending that the Festival crowd is more interested in bargain hunting than antique shopping.

The proliferation of flea markets and yard sales throughout the Festival may be a mixed blessing. It would be difficult to defuse or discourage the spirit of private enterprise represented by flea markets and yard sales during the Festival. However, as the number of sale sites increased, so too has the traffic congestion surrounding these sites.

US 40 is a rather narrow artery and its limited roadside parking creates a safety problem.

(3) Some of the Festival sites reach full capacity during key periods of the festival.

There has been a general interest in expanding the overall size and attendance of the Festival. However, some of the more popular components of the Festival may already be operating at "full capacity" during certain portions of the Festival. On Saturday and Sunday afternoons, certain sites approach their maximum carrying capacity in terms of the physical size of the sites, their parking areas, and the traffic arteries outlying these sites.

Given these limits, any attempt to increase attendance will require either a re distribution of attendance at the more popular sites or the development of new sites and activities. Re distributions might be attempted through special events on alternate dates. Both the towns of Addison and Beallsville have shown a certain initiative toward expanding their agendas.

The following recommendations were made to the Festival Committee:

1. The central purpose of the Festival needs to be clarified with respect to the region.
2. The past series of Festivals need to be reviewed relative to their strengths and weaknesses.
3. The lines of responsibility for planning and implementing the Festival need to be revised.
4. Any expansions to the Festival need to be reviewed relative to ways and means.
5. Overall, communications with the resident and non resident public need to be improved.

The National Road Festival is a unique regional event and, as such, should continue to be organized and led by its own people.

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