

CHAPTER 3 METHODOLOGY

RESEARCH TITLE

The Prairie Spirit Rail Trail: An economic impact study of phase I.

PROBLEM

The fight against rail-trail development in Kansas has been intense and emotionally charged. Many rail-trail proponents have claimed that a rail-trail will have a positive economic impact on the communities it passes through. They have used data gathered at rail-trails in other states to support this claim. Adjacent land owners, farmers and others who are against rail-trail development in Kansas believe that rail-trails in a state which is predominantly rural and boasts private land ownership of nearly 98%, will not have the same positive results as other states. In short, "Kansas is different."

Is it really? This study, on the first phase of the first significant rail-trail in Kansas is designed to answer this question. The results of this study will provide a basis for the arguments for, or against Kansas rail-trails in the future.

PROPOSITION

To determine the economic impact, positive or negative, of the first phase of the Prairie Spirit Rail Trail which runs through Garnett, Kansas.

HYPOTHESIS

There is a relationship between the establishment of a rail-trail in a community, and the economic base of that community. This relationship indicates that the establishment of a rail-trail will provide a positive economic impact for the affected community.

NULL-HYPOTHESIS

There is no relationship between the establishment of a rail-trail in a community and the economic base of that community.

SCOPE AND METHOD

Modified Hedonic Pricing Method

The economic value of the hedonic pricing method is equivalent to the costs and/or prices of related market transactions (McPherson,1992). For this study, the hedonic pricing method has been modified to compare specific values at different points in time.

This study will include a comparison of data gathered:

- 1) Prior to ground breaking of the trail (1994);
- 2) After establishment of the trail in the community (1996).

Areas included in the study:

- 1) Property values of adjacent land owners.
- 2) Annual gross revenue of adjacent and directly affected businesses.
- 3) Average number of full and part-time employees of these businesses.
- 4) Total number of adjacent and directly affected businesses.
- 5) Traffic count of US 59 through Garnett (Deleted - see Appendix D).

How data is gathered:

- 1) Property values: Garnett City Hall (Appendix B)
- 2) Gross revenue and employee count: survey of adjacent and directly affected businesses. (Appendix C)
- 3) Number of businesses and traffic count: Dan Benjamin, Director of the Chamber of Commerce (1994); Trent McCown, Prairie Spirit Rail Trail Manager (1996). (Appendix D)

RESEARCH SUBJECT

The Prairie Spirit Rail Trail is a rail-trail development project in Kansas, which runs from the north end of the Marais des Cygnes River bridge in Ottawa to just south of Miller Street in Iola (see Appendix F for location map). This 50.2 mile corridor crosses seven named water courses, including the Marais des Cygnes River and Pottawatomie Creek. "The right-of-way also passes through eight communities, including Ottawa, the county seat of Franklin county; Garnett, the county seat of Anderson county; and Iola, the county seat of Allen county (KDWP, 1994)."

Trail Habitats

The Prairie Spirit Rail Trail, which is the first significant rail-trail project in Kansas, possesses a wide variety of natural habitats. Of these varieties however, three appear to be dominant. These three include the tallgrass prairie community; the eastern deciduous forest community; and, the eastern flood plain forest community. The following descriptions are from the Prairie Spirit Rail-Trail Development Transportation Enhancement Grant Proposal, dated September 9, 1994 (KDWP, 1994).

The tallgrass prairie community is a remnant of an ecosystem that once dominated the region. In Kansas, southeastern tallgrass prairie is found east of the Flint Hills and south of the Kansas River. This habitat type is dominated by grass species; big bluestem, Indian grass, and switch grass. High quality examples of tallgrass prairie also contain a wide assortment of wildflowers including blazing star, sunflowers, prairie clovers, milkweeds, evening primroses, strawberries and violets.

The eastern deciduous forest communities are dominated by oak and hickory trees with understory species such as American hazelnut, redbud, and the American bladdernut. Forest wildflowers including the dogtooth violet, Dutchman's breeches, May apple, downy yellow violet, sweet William phlox, and Jack-in-the-pulpit may be also found in these communities.

The third type of natural community along this route is the eastern flood plain forest. This forested wetland community exists on flood plains along major rivers and streams in eastern Kansas. Dominant tree species include cottonwood, sycamore, hackberry, pecan and box elder. Since these natural communities are subject to periodic flooding, the plants found in these forests have adapted to wetter conditions.

This corridor also crosses cropland, pasture land, planted hedgerows and waterways. This mixture of natural and planted vegetation supports a wide variety of songbirds, white-tailed deer, bobwhite quail, mourning dove, cottontail rabbits, fox squirrels, various raptors, raccoons, opossums, coyotes, bobcats, beaver, muskrat and mink, as well as many other species of wildlife. Rare species, including the prairie mole cricket, Henslow's sparrow and the northern crawfish frog may be found around Welda, where extensive tracts of southeastern tallgrass prairie remain in pristine condition.

(KDWP, 1994)

The largest stream crossing the rail-trail, Pottawatomie Creek, is located about three miles north of Garnett. This area, which is relatively unaffected by development,

provides an excellent refuge for wild turkey, deer, wood ducks, great blue heron, green heron, kingfisher, barred owl, woodpeckers and flycatchers (KDWP, 1994). It is a beautiful, unspoiled area with enormous potential.

Natural Connections

The Prairie Spirit Rail Trail also serves as a connector for existing green space along the corridor. The trail runs adjacent to the following pre-existing managed green spaces (KDWP, 1994):

- 1) Garnett's North Lake Park, a 255 acre park with a 55 acre lake.
- 2) The dam on Crystal Lake, a 10 acre city lake with the adjacent South Park, also part of Garnett.
- 3) The Cedarbrook Golf Course in Iola.

Historical Connections

In addition to connecting green space, the Prairie Spirit Rail Trail provides a tour of history. There are many sites adjacent to, or near the trail, that are listed on the National Historic Register. A few of these include (KDWP, 1994):

- 1) Dietrich Cabin in Ottawa.
- 2) The Downtown Ottawa Historic District.
- 3) Santa Fe Railroad Depot in Ottawa.
- 4) Ransom House in Ottawa.
- 5) Taub Jones Hall in Ottawa.
- 6) Franklin county Courthouse in Ottawa.
- 7) Ottawa Library.
- 8) Shelley-Tipton House in Garnett.
- 9) Anderson County Courthouse in Garnett.
- 10) Allen County Jail in Iola.

As can be seen by the abundant wildlife, pre-existing green space and treasured historic sites associated with this corridor, the Prairie Spirit Rail Trail has the potential to provide a valuable conservation and preservation service for Kansas.

Management

The trail is open from half an hour before sunrise to half an hour after sunset. Fees of \$2.50 per day, or \$10.50 per year, are charged for any user over the age of 16 only on the part of the trail that is outside the Garnett city limits. Fee payment can be made on a daily basis in drop boxes at all intersections and roadways, or on an annual basis at the management office in Garnett. Richman, Welda and Garnett also have self pay stations at their designated trail entry locations with the Garnett station pulling in 70% of the daily fees, indicating that Garnett is favored as a starting place for trail users (McCown, 1997). Payment is monitored by Trent McCown, the trail manager, as he travels the trail on his bicycle. Trail usage within the city limits of Garnett is free to encourage usage and cut down on monitoring time and expense (McCown, 1997).

Figure 7
Prairie Spirit Rail Trail Usage Record

March	1200	August	4741
April	1800	September	3830
May	2200	October	3770
June	3000	November	1893
July	3200	December	2071

Source: McCown, 1997

Trail visitation has been tracked, using surveys and pay station usage figures, since the trail opened in March. Use steadily increased over the summer months with normal decline beginning in September with the beginning of School (Figure 7).

Maintenance expense is split between the City of Garnett and the Kansas Department of Wildlife and Parks (KDWP). Garnett pays for all maintenance within the city limits while KDWP pays for all other trail upkeep. A courtesy understanding between Garnett and KDWP allows Trent McCown, who is employed by KDWP, to supervise both areas, providing management services for the entire trail.

The second phase of the Prairie Spirit Rail trail is scheduled to begin construction in May of 1997 with an anticipated open date in September of 1997. (McCown, 1997)