

Missing Masterpieces?

A SURVEY ABOUT MISSOURI STATE PARKS AND HISTORIC SITES



Missouri Department of Natural Resources
Division of State Parks
1-800-334-6946 • www.mostateparks.com

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Missing Masterpieces: A Survey About Missouri State Parks & Historic Sites

Executive Summary

From April to October 2004, the Missouri Department of Natural Resources' Division of State Parks conducted a survey to gather public input regarding the standards the division uses to determine if potential new areas are worthy of including in Missouri's state park system. Additionally, the survey allowed participants to suggest "missing masterpieces" – specific natural, cultural or recreational areas they felt were missing from the system.

Over 1,400 surveys were received from the public. Over half (52%) of those received were paper surveys, while the rest (48%) were received via the Internet. An overwhelming percentage of respondents agreed with the standards the division currently uses to evaluate new areas, ranging from 72% agreement (for the geography standard used to evaluate potential new cultural/historical sites) to 96% agreement (for the natural themes standard used to evaluate potential new natural landscapes). Respondents who indicated that there were other standards the division should consider when evaluating potential new sites ranged from 12% (cultural landmarks) to 27% (natural landscapes).

By far, the most frequently mentioned alternate standards for each of the three types of standards used (natural, cultural and

recreational) were location and accessibility. Often this meant greater equality in geographic distribution as well as greater accessibility to parks and sites, usually by locating parks and sites closer to urban areas or large population centers.

Another frequently mentioned alternate standard stemmed from respondents' concerns about changing land uses in Missouri, many of whom saw the division as a mechanism for preserving greenspace from urban and suburban encroachment as well as providing greenway connections/corridors between parks and sites, particularly in urban areas.

Although some respondents voiced concern regarding the division's ability to expand its state park system within a limited budget, numerous participants also favored expansion of the current system to incorporate new areas. Suggestions included:

- Development of additional sites that interpreted Native American and African American history and culture, as well as other under-represented cultures and/or ethnicities.
- Greater emphasis on preserving Missouri's diverse immigrant history.
- Development of additional sites close to urban population centers.

- Greater emphasis on acquiring and protecting watersheds, wetlands and lands adjacent to rivers and streams.
- Greater emphasis on acquiring prairies and areas of unique geologic significance, such as caves.

Perhaps the most gratifying result of the survey was the strong sense of ownership expressed by a large percentage of respondents, many of whom referred to Missouri's state park system as "our system."

This first report summarizes the survey results. From these results and staff input, an action plan will be developed that will help guide the Division of State Parks' future management decisions regarding how best to protect Missouri's natural and cultural resources. This plan will explore and recommend ways the division can most effectively protect those "missing masterpieces" that meet the standards established by the division, while still being an efficient steward of the funds generated from the Parks-and-Soils Sales Tax.

Chapter 1

Introduction, Purpose & Survey Method

In 1992, the Missouri Department of Natural Resources' Division of State Parks drafted an expansion plan for the Missouri state park and historic site system. A primary goal of this plan was to identify notable gaps in the system where specific natural, cultural and recreational resources were either not represented or were under-represented. Additionally, the plan developed criteria by which further gaps could be recognized. The division currently uses these criteria for evaluating potential new areas and gauging whether or not these areas are worthy of inclusion into the state park system.

Specifically, the criteria the division uses to review new areas for their natural resource potential include "significance", "regional representation" and "natural themes". The criteria used for evaluating potential new historic sites include "significance", "chronology", "geography", "themes" and "resource integrity". "Statewide appeal", "resource-based" and "sufficient acreage" are the three criteria used when assessing new areas for their recreation potential.

The 1992 expansion plan also outlined the philosophy of Missouri's state park system. Using the system's mission as the basis for this philosophy, the writers of the expansion plan contrasted the purpose of Missouri's state park system to that of the National Park

system and to that of local park systems. "National parks were created initially for preserving natural and historic wonders of nationwide significance. National parks are primarily resource-oriented with recreation use occurring as a result of the resource...Local parks (city, county), on the other hand, are primarily user-oriented with the user being the key criterion. Recreation is the primary goal as opposed to preservation of the resource" (Missouri Department of Natural Resources [MODNR], 1992).

The mission of the Missouri Division of State Parks is threefold: to preserve and interpret the state's most outstanding natural landscapes, to preserve and interpret the state's most outstanding cultural landmarks, and to provide healthy and enjoyable outdoor recreation. The division's mission was the foundation upon which the writers of the plan developed what they believed should be the philosophy of Missouri's state park system. "State parks differ...in the significance of the feature being preserved. State parks attempt to balance the goals of providing a place to recreate with those of preservation and management of significant natural or cultural resources" (MODNR, 1992).

This philosophy in turn became the groundwork for defining the niche filled by state parks and historic sites, that of preserving and providing access to the most

excellent of *statewide* resources. "Missouri's state parks provide a place for people to recreate, while offering solitude, fresh air, and a place to exercise and enjoy themselves...The Missouri state park system also functions to preserve areas that best exemplify the natural heritage of the state...The system also provides the finest examples of Missouri's cultural heritage" (MODNR, 1992).

Nearly twenty years have elapsed since the completion of the expansion plan. During this time, several of the gaps identified in the plan have subsequently been acquired and added to the state park system as new parks or historic sites; however, many of the identified gaps still remain unfilled. Additionally, changing land use patterns in Missouri have seen an increasing urbanization of areas traditionally considered rural^{1,2}, threatening the division's ability to fill these remaining gaps. Furthermore, various state parks and historic sites are now nearly or completely surrounded by development, emphasizing an urgent need to continue efforts to protect what is left of Missouri's natural and cultural heritage.

Recent questions posed of the expansion plan suggested the need to review and update the plan. One such question was how successful the division has been in acquiring areas that fill gaps identified in the 1992 plan. Other questions included

determining what gaps still exist and whether or not there are additional areas missing that fulfill the division's mission, areas that need protection but were not identified in the original plan. A final question was posed regarding whether or not the criteria that were initially established were still relevant, still reflecting the division's philosophy and perceived niche in protecting the state's resources while providing access to these resources.

These questions were the impetus behind present efforts to revise the expansion plan to meet current divisional goals and to keep pace with today's changing landscape and constituency. As part of this effort, the division launched a public survey entitled, "Missing Masterpieces: A Survey about Missouri State Parks and Historic Sites" (Appendix A). The purpose of this survey was to solicit public input regarding the criteria the division uses to determine if potential new areas are worthy of inclusion in the system. Additionally, the survey allowed respondents to suggest areas they felt were missing from the existing system.

The Missing Masterpieces survey was launched April through October 2004. Respondents were invited to participate either by paper or through the Internet. Postage-paid paper copies were sent to all of the manned facilities within Missouri's 83-facility system; these copies were then distributed to park users throughout the study period. A news

brief in the Spring/Summer 2004 issue of the department's magazine, *Missouri Resources*, publicized the survey and issued an appeal for respondents. A postage-paid insert in the same issue of the magazine allowed respondents to request a paper copy of the survey. The division's electronic newsletter, *Missouri State Parks eFriends*, also publicized the survey and provided an Internet link to the electronic version of the survey.

In addition to asking respondents to evaluate the division's criteria and to suggest potential new areas, respondents were also asked to suggest improvements to the system. Other questions were asked relating to visitors' demographic characteristics and visitation patterns to Missouri's state parks and historic sites. Because it was anticipated that the survey would take anywhere from 15 to 30 minutes to complete, respondents were offered the opportunity to enter a drawing for a two-nights' stay at a state park cabin or lodge. Over 1,400 (1,457) surveys were received, just over half (52%) of which were paper surveys while 48% were Internet surveys.

An interesting corollary to using Internet surveys is the length and level of detail of the open-ended responses from the Missing Masterpieces survey. Responses to open-ended questions were significantly longer ($p < .001$) when submitted electronically as opposed to the open-ended responses

submitted via paper surveys. For instance, the average word count for Internet responses was 34, with a maximum of 508 words. The average word count for paper surveys was 22, with a maximum of 186 words. While it can't be said that the Internet responses to the open-ended questions were more meaningful than their paper equivalent, many of the Internet responses were more detailed, emphasizing a benefit of using this type of survey method. A correlation may exist between longer and more detailed open-ended Internet responses and the perception of greater participant privacy, the ability to complete at any time of day or night and the perception of having more time to complete and at a greater convenience to the participant (Dillman, 2000).

Other advantages to using the Internet to conduct public surveys include broadening the geographic distribution of respondents, expanding the opportunity to participate, offsetting the costs of mail-back surveys, and increasing the speed at which surveys are received (Dillman, 2000). For the past several years, the division has increased its efforts to utilize the Internet as a cost-effective way of both disseminating and gathering information and will continue to do so in the future. A limitation to using the Internet to conduct surveys, however, is the potential for missing or under-representing certain samples of the division's user

population who do not have access to the Internet or who are not comfortable using this type of technology. It was for this reason the division conducted a multi-modal survey, using both Internet and paper surveys.

In addition to soliciting input from the public, the division also solicited input from Missouri Department of Natural Resources' staff. A department-wide email was issued and a short article promoting the survey was published in the department's internal newsletter, *Inner Resources*. A survey was created on the department's internal Web site. Over 150 (163) surveys were received from staff. The following report provides a summary of the results of both surveys. Appendix B provides a copy of the numeric data, while Appendix C lists the responses to each open-ended question.

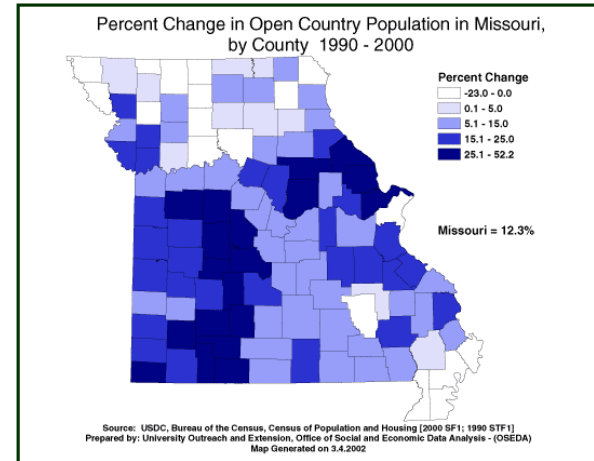
Footnotes:

¹ In a presentation to department staff, the Office of Social and Economic Data Analysis (OSED, 2004) demonstrated the continued and growing trend toward urbanization and suburbanization of traditionally rural areas.

What OSED found is that a growing proportion of Missouri's population is choosing to live in the open country, especially in those counties that combine natural resource amenities with proximity to employment and recreation opportunities. This trend has been in existence for the past three decades but has gained momentum in the last decade. A large portion of this migration has opted for country locations in lake, recreation and retirement areas. There is little indication that this trend will diminish. Figure 1 illustrates this growth by showing those counties experiencing the most growth in the decade between 1990 and 2000.

² In their 2001 Natural Resources Inventory, the Natural Resources Conservation Service (NRCS) estimated that nationwide, between 1982 and 2001, 34 million acres (roughly the size of the state of Illinois) were converted to developed uses (NRCS, 2003). Between 1997 and 2001 alone, almost nine million acres were developed, 46% of which came from forest land, 20% from cropland and 16% from pastureland.

Figure 1. Percent Change in Open Country Population in Missouri, 1990-2000



Chapter 2

Demographic Characteristics & Visitation Patterns of Respondents

The diversity of Missouri's state park system is reflected in the diversity of its users. Understanding and planning for this diversity is an important goal for the division, one that has been identified in the division's Strategic Master Plan (MODNR, 2005). Understanding the diversity of its users requires knowing who they are, a reason the division frequently asks park users questions about their demographic characteristics and use patterns. Realizing that there is no such person as a "typical" park user but also confident in the knowledge that such information is beneficial in providing quality service delivery, the division uses demographic and use pattern data to anticipate changes in visitor characteristics and resultant changes in visitor expectations and demands.

A prime example of changing demographic patterns is the growing Hispanic population in Missouri. Anecdotal data indicates a reciprocal growth in Hispanic users at several state parks. Aware that studies suggest differences in recreational use patterns between Hispanic users and other ethnicities and cultures (Kerr, Legg, Stephens-Williams, Darville, Hung & Albers, 2006; Dwyer & Barro, 2000), the division can focus efforts on implementing programs and providing facilities that appeal to Hispanic users. This in turn will ensure a continued connection with and relevance to the

natural world for this particular user group.

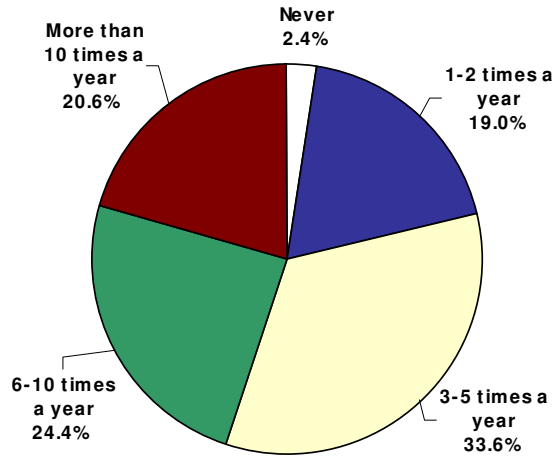
The Missing Masterpieces survey continues the division's tradition of seeking information about its users by asking questions related to participants' level of education, race or ethnicity, annual household income, age, gender and geographic residence. Additionally, questions related to frequency of and barriers to use of Missouri state parks and historic sites were also asked. The following summarizes the results of these questions.

Frequency of Use

Participants were asked to indicate how often they visited a Missouri state park or historic site in a year, and to list those they most often visited. Less than 5% (2.4%) of respondents indicated never having visited a state park or historic site. Nineteen percent (19.0%) visited between one and two times a year, a third (33.6%) indicated a frequency of between three to five visits annually, and almost a fourth (24.4%) visited between six to ten times a year. A fifth (20.6%) visited more than 10 times a year. Figure 2 illustrates the frequency of use. It is gratifying to note that over two-thirds (78.6%) of respondents indicated at least three visits a year.

Respondents were given the opportunity to list the state parks

Figure 2. Frequency of Visits to Missouri State Parks &/ or Historic Sites



and historic sites they most often visited. On average, respondents typically listed three facilities. Table 1 lists those facilities most frequently mentioned by respondents. An interesting result is that nearly 6% (5.7%) of the facilities listed were not state parks or historic sites. Several were conservation areas managed by the Missouri Department of Conservation. Several others were federal recreation areas within the Mark Twain National Forest, managed by the U.S. Forest Service; others were federal recreation areas within the Ozarks National Scenic Riverways, managed by the National Park Service. Several of the facilities listed were local or county parks.

Barriers to Use

Respondents were asked to describe reasons for never having visited a state park or historic site. Less than 3% (2.3%) of participants responded to this question. Seven choices were provided to respondents, with the opportunity to choose more than one:

- I don't know where any are.
- I don't have the transportation.
- It's too expensive.
- I'm not comfortable in the woods.
- I don't have the time.

- They are too far from where I live.
- Other.

One hundred thirty four (134) responses were provided, the majority (26.1%) of which indicated that state parks and historic sites were too far from where respondents lived. Figure 3 represents the frequency of reasons visitors indicated for not having visited a state park or historic site.

Respondents were also given the opportunity to provide open-ended comments regarding other reasons for not visiting. Twenty-three responses were given and were broken into categories based on similarities in responses. Reasons ranged from looking for closer-to-home opportunities because of time or expense (21.7%), to age and/or medical reasons (17.4%), to not knowing enough about Missouri's state parks or historic sites (8.7%). Table 2 lists the frequency of each category of open-ended responses.

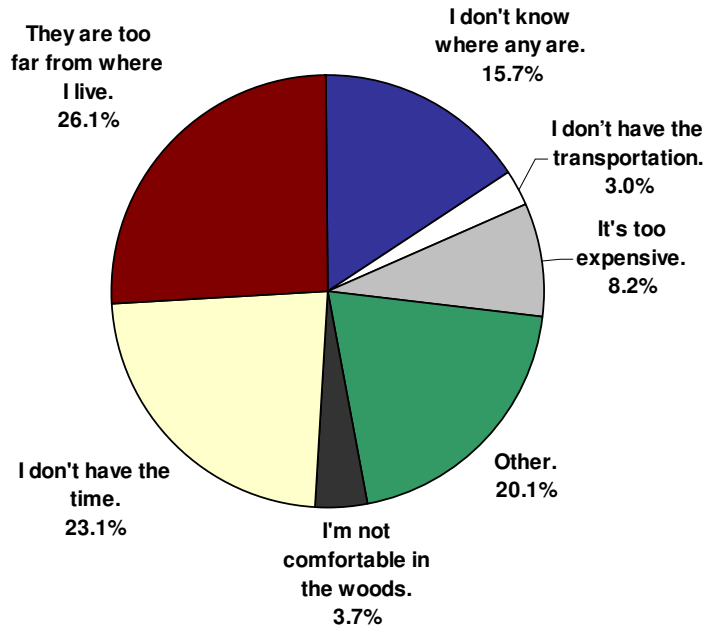
It is interesting to note that almost half (49.2%) of the 134 responses for not visiting a state park or historic site were either because respondents felt they didn't have the time (23.1%) or because respondents felt that the parks and sites were too far away (26.1%). Responses were compared between Missouri respondents based on whether they described themselves as living in an urban, suburban or

Table 1. State Parks & Historic Sites Most Often Visited

Facility	Freq.	%
Elephant Rocks State Park	137	5.0%
Meramec State Park	127	4.6%
Bennett Spring State Park	125	4.6%
Johnson's Shut-Ins State Park*	123	4.5%
Lake of the Ozarks State Park	122	4.5%
Ha Ha Tonka State Park	115	4.2%
Katy Trail State Park	97	3.5%
Babler Memorial State Park	79	2.9%
Montauk State Park	76	2.8%
Roaring River State Park	74	2.7%
Mark Twain State Park	73	2.7%
Watkins Woolen Mill State Historic Site & State Park	69	2.5%
Arrow Rock State Historic Site	65	2.4%
Hawn State Park	65	2.4%
Truman State Park	65	2.4%
Table Rock State Park	64	2.3%
Rock Bridge Memorial State Park	63	2.3%
Cuivre River State Park	58	2.1%
Sam A. Baker State Park	54	2.0%
Onondaga Cave State Park	50	1.8%

* Survey was conducted prior to the December 2005 breach of Taum Sauk Reservoir and resultant closure of Johnson's Shut-Ins State Park.

Figure 3. Frequency of Reasons Visitors Indicated for Not Visiting a State Park or Historic Site



rural area. Of the respondents who said that parks and sites were too far away to visit, results were equally divided as to whether they

described their residence as urban (39.1%) or rural (39.1%), while a smaller percentage described their residence as suburban (21.7%).

Although many state parks and historic sites are located in rural areas, many are still within an easy drive of Missouri's metropolitan areas. For example, within an hour's drive of St. Louis, there are more than 10 state parks and historic sites. Seven facilities are within an hour's drive from Kansas City. These two metropolitan areas account for nearly 60% of Missouri's population. However, as energy prices continue to increase, so too may this perception that state parks and historic sites are too far away to visit.

Closely associated with distance is the perception of lack of time. Although some researchers have suggested that Americans have more discretionary leisure now than at any time in the past century (Aguiar & Hurst, 2006), others suggest that leisure has in fact decreased (Ramey & Francis, 2006; Leete-Guy & Schor, 1992). Debate over how leisure is defined and measured is partially responsible for the disagreement over whether or not leisure is decreasing. A growing consensus, however, agree that

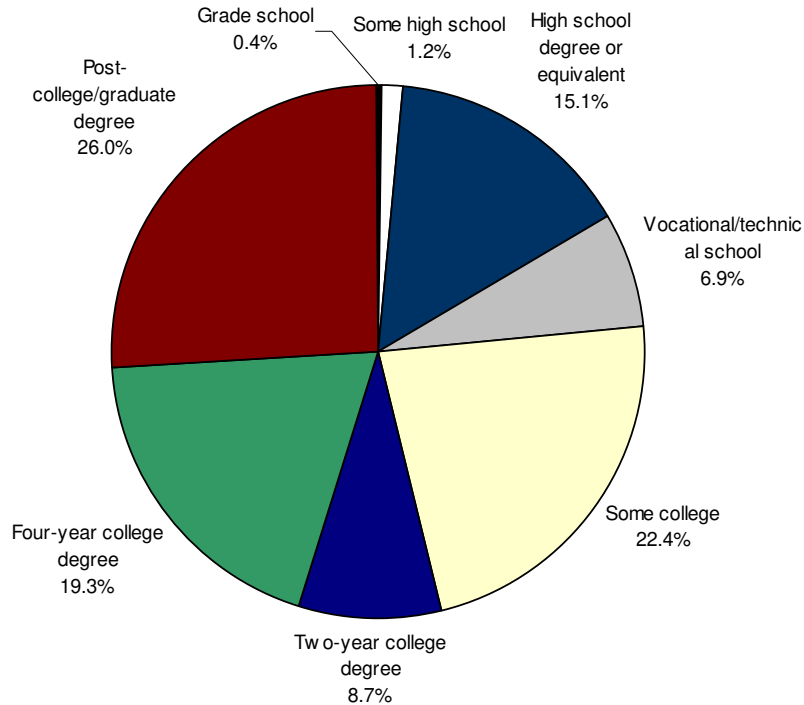
changing technology has contributed to the ability to work from anywhere at any time, subsequently contributing to the perception that there is less discretionary time available to spend in leisure pursuits.

Additionally, while a plethora of leisure activities are available in which to participate, consumers are forced to choose amongst this vast array of competing types of activities while still attempting to meet their various family and work obligations. Changing technology, again, has been identified as partially responsible for an increase in the types of leisure activities in which to choose while decreasing the amount of time spent in outdoor and natural resource-oriented recreation activities (Louv, 2005). This trend is especially troubling to health care professionals and recreation resource managers alike, both of whom point to the growing obesity epidemic in America and the subsequent increase in related health problems as directly linked to the decrease in participation in outdoor recreation. Equally troubling to resource professionals is

Table 2. Other Reasons Given for Not Visiting a State Park or Historic Site

Category	Frequency	Percent
Looking for closer-to-home opportunities because of time and/or expense.	5	21.7%
Age and/or medical reasons.	4	17.4%
Just haven't taken the time or "gotten around to it."	3	13.0%
Recently moved to Missouri and am still learning about the area.	3	13.0%
Don't know enough about them.	2	8.7%
Safety concerns.	1	4.3%
Don't like the reservation system.	1	4.3%
Other	4	17.4%
Total	23	100.0%

Figure 4. Education Levels of Survey Respondents



the knowledge that as participation decreases so too does relevance and connection to the natural world. The division is currently engaged in a programming and marketing initiative to encourage children and their families to explore the natural world.

Demographic Characteristics

Education

Over a quarter (26%) of the respondents indicated having a post-college or graduate degree, 22.4% indicated having some college, and 19.3% indicated having a four-year college degree. Less than 20% (16.7%) of respondents indicated having a high school diploma or less.

Figure 4 shows the education levels for survey respondents. Figure 5 compares the education levels of survey respondents from Missouri to the education levels of Missouri's population as a whole, and is based on 2004 U.S. Census Bureau data. Census data reports education levels of adults 25 years of age or older; for purposes of comparisons, the education levels of respondents under the age of 25 were not included in Figure 5.

Race/ Ethnicity

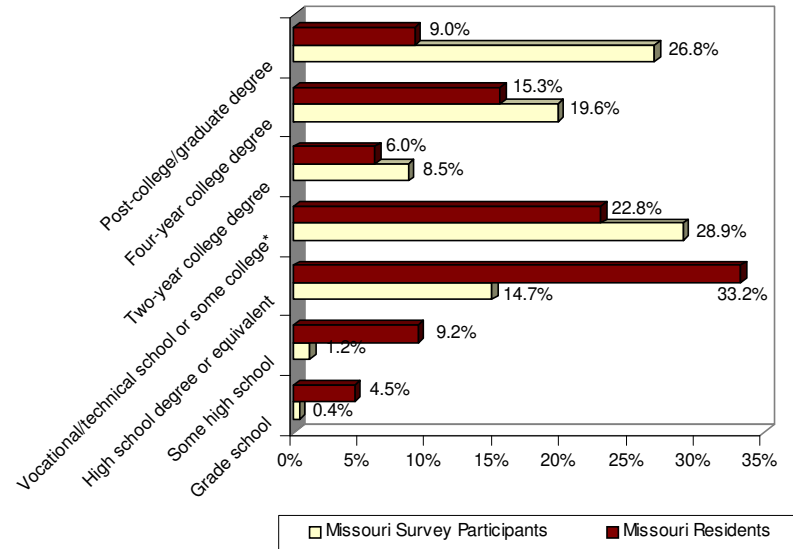
Respondents were given the opportunity to choose more than

one race/ethnicity category; 1,474 responses were given by 1,427 respondents. The vast majority (93.6%) of respondents indicated they were white. Figure 6 compares the overall ethnic composition of survey respondents with Missouri participants' ethnic composition and the ethnic composition of Missouri's population, and is again based on 2004 U.S. Census Bureau data.

Annual Household Income

Participants were given ten income categories from which to indicate their annual household income. The largest percentage (15.5%) indicated an annual household

Figure 5. A Comparison of Education Levels of Missouri Participants & Missouri Residents



* Categories combined for comparison to census data.

Figure 6. Race/ Ethnicity of Survey Respondents Compared to Missouri's Population

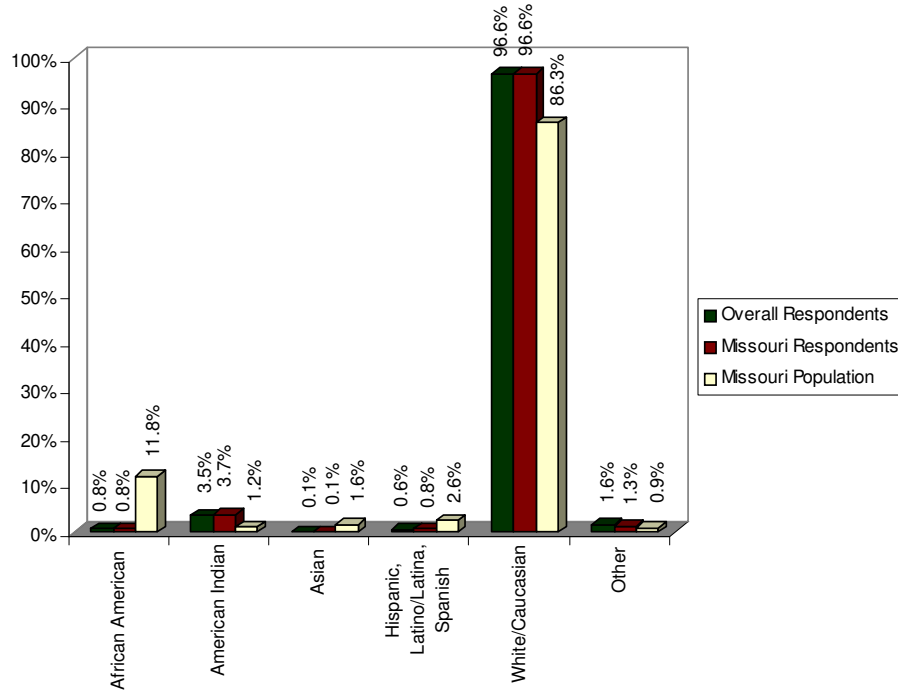
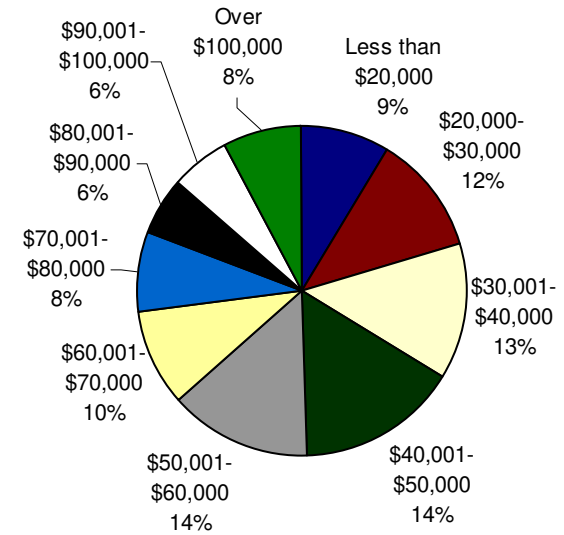


Figure 7. Annual Household Income of Survey Respondents



income of between \$40,000 and \$50,000. Figure 7 represents the percentage of respondents in each of the income categories. Median income from survey respondents and Missouri residents was compared. The 2004 data from the U.S. Census Bureau reports a median Missouri household income of \$43,988. Median income of Missouri respondents was \$50,823, almost \$7,000 higher than the median income of Missourians as a whole.

Age

The average age of all respondents was 52, with a minimum age of 17 and a maximum age of 91. In order to compare with Missouri 2004 census data, the ages of Missouri respondents were arranged into ten (10) age categories and are shown in Figure 8. The median age of Missouri respondents was 51 in contrast to 37, the 2004 median age of Missouri residents.

Gender

Nearly 60% (57%) of respondents were male, while 43% were female. Results for Missouri respondents were very similar, with 56.8% being male and 43.2% being female. In 2004, Missouri's population was composed of slightly more (51.5%) females than males (48.5%).

Geographic Residence

Respondents were asked to provide their 5-digit ZIP code. The vast majority (94.5%) of respondents were from Missouri, while 2.0% indicated they were from Illinois and less than 1% (0.5%) were from Iowa. Figure 9 shows a map with the ZIP code distribution of respondents.

Respondents were also asked to describe whether they lived in

Figure 8. Age of Survey Respondents

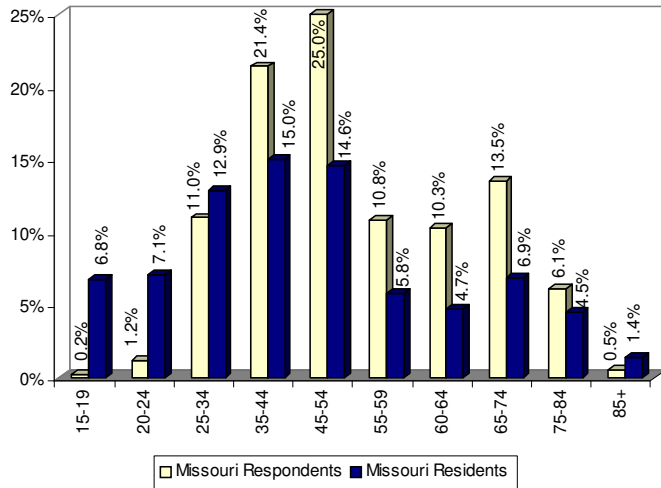
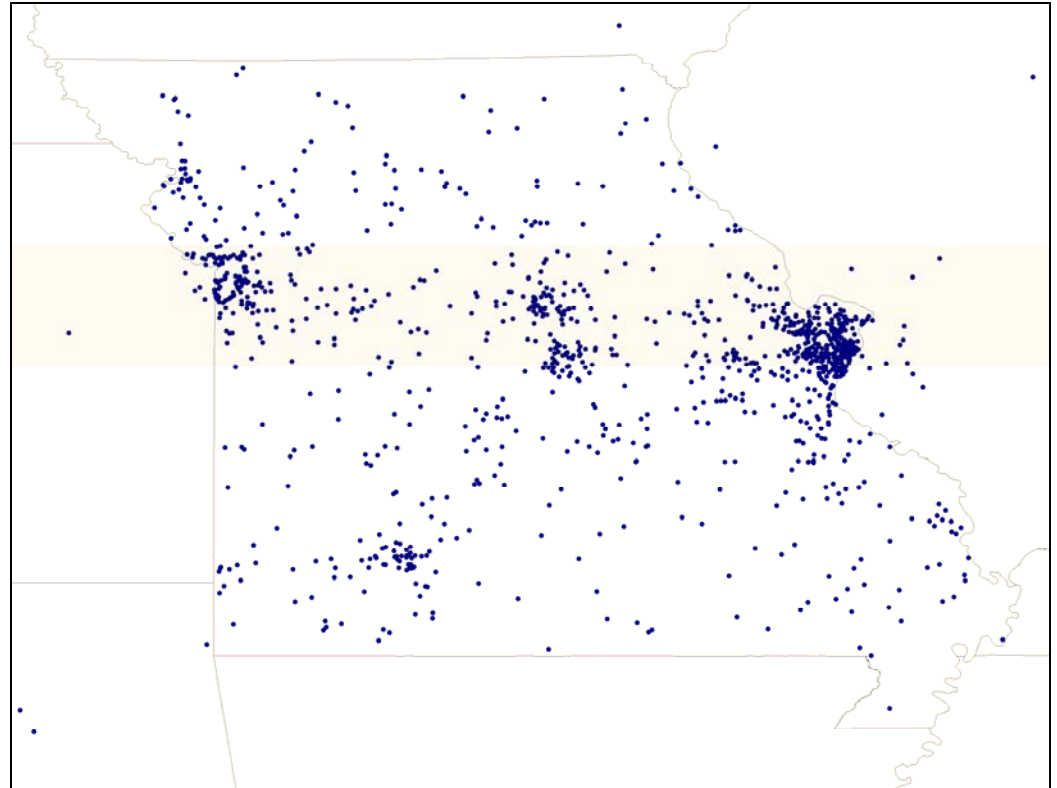


Figure 9. ZIP Code Distribution Map of Survey Respondents



urban, suburban or rural areas. The largest percentage (42.0%) indicated they would describe where they lived as rural, while 39.4% described where they lived as suburban, and only 18.5% indicated they lived in an urban area. Results were very similar for Missouri respondents. Nearly 42% (41.6%) described where they lived as rural, 39.5% indicated suburban and 18.9% indicated urban. However,

when arranging Missouri respondents' ZIP codes into metropolitan statistical areas, as defined by the U.S. Census Bureau, a much larger percentage (73.3%) were classified as urban. Table 3 compares the percentage of Missouri respondents in each of the core-based statistical areas (CBSA) within Missouri to Missouri's population as a whole.

Summary

The average survey respondent was a repeat visitor to Missouri's state parks and historic sites, with a frequency of return visits that suggests a high level of satisfaction with the services and level of resource protection provided by the division. Past user surveys confirm this high satisfaction and resultant

frequency of visitation (Fredrickson, 2001; Witter, 2007).

While the vast majority of respondents accurately identified the parks and historic sites they most often visited, the small percentage of respondents who listed areas not managed by the Division of State Parks suggests the need for a marketing or branding strategy to distinguish the division from other resource agencies. This can only

Table 3. Percentage of Missouri Respondents in Core-Based Statistical Areas*

Category	Frequency		Percent	
	Survey Respondents	2004 Missouri Population	Survey Respondents	2004 Missouri Population
<i>St. Louis, MO-IL Metropolitan CBSA</i>	462	2,055,521	39.3%	35.7%
<i>Kansas City, MO-KS Metropolitan CBSA</i>	172	1,125,307	14.6%	19.6%
<i>Jefferson City, MO Metropolitan CBSA</i>	66	142,778	5.6%	2.5%
<i>Columbia, MO Metropolitan CBSA</i>	65	151,129	5.5%	2.6%
<i>Springfield, MO Metropolitan CBSA</i>	60	384,654	5.1%	6.7%
<i>St. Joseph, MO Metropolitan CBSA</i>	23	114,785	2.0%	2.0%
<i>Joplin, MO Metropolitan CBSA</i>	12	162,145	1.0%	2.8%
<i>Fayetteville-Rogers-Springdale, AR-MO Metropolitan CBSA</i>	1	21,973	0.1%	0.4%
<i>Non-metropolitan</i>	314	1,596,326	26.7%	27.7%
Total	1,175	5,754,618	100.0%	100.0%

* The term "Core Based Statistical Area" (CBSA) is a collective term used by the U.S. Census Bureau for both metropolitan and micropolitan statistical areas. A metropolitan statistical area contains a core urban area of 50,000 or more population, and a micropolitan statistical area contains an urban core of at least 10,000 (but less than 50,000) population. Each metro or micro area consists of one or more counties and includes the counties containing the core urban area, as well as any adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core. Appendix B lists the counties included in each CBSA.

increase the positive endorsement offered by the citizens of the state, who overwhelmingly passed the Parks-and-Soils Sales Tax initiative in 2006.

Continuing to respond to the state's changing population will also have a positive affect on the division's image. Demographic results from this survey as well as past surveys (Fredrickson, 2001; Witter, 2007) indicate that the division's user base is not entirely reflective of the state's population as a whole. Respondents to this and other surveys are typically white older adults with higher levels of income and education than the average Missouri resident, raising concerns that the system is not adequately serving the state's diverse population. Ongoing urban outreach initiatives and recent initiatives to establish programs that

encourage use by families have been implemented to counter these concerns. The division must continue to establish affordable programs and services and develop facilities that meet the needs of the state's varied constituency.

Chapter 3

Respondents' Responses Regarding Resource Standards & Potential Gaps

Natural Resources Standards

The Missouri state park and historic site system uses the following three standards to evaluate potential new state parks for the importance of their natural resources: significance, regional representation and natural themes.

Significance Standard

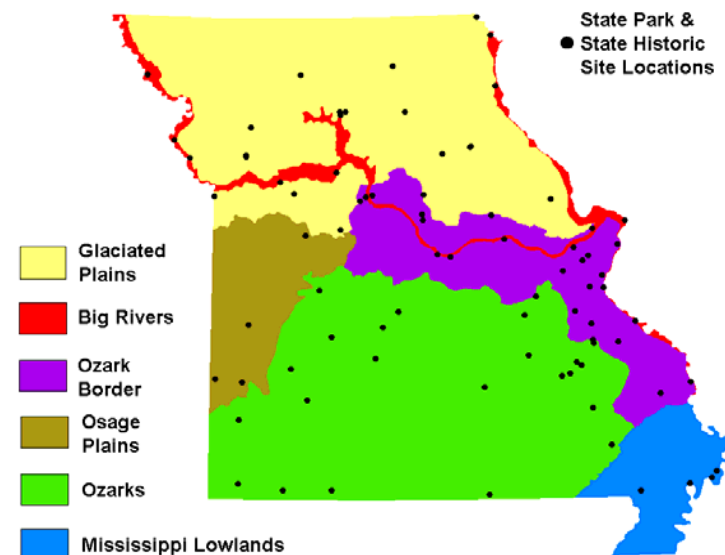
In order to meet the "significance" standard, a new state park selected for its natural landscapes should represent excellent examples of Missouri's distinctive geologic, terrestrial or aquatic features. It should also be of the highest integrity and be of sufficient size to

protect its resources and maintain a healthy ecosystem while providing visitors with the opportunity to enjoy those resources.

Regional Representation Standard

In order to meet the "regional representation" standard, a new state park should represent one of six natural divisions, which are defined by their geology, landform and vegetation. The six natural divisions in Missouri are as follows: Glaciated Plains, Big Rivers, Ozark Border, Osage Plains, Ozarks and Mississippi Lowlands. Figure 10 indicates the state parks and historic sites within these six divisions. The goal of the system is to ensure that potential new state parks improve

Figure 10. The Natural Divisions of Missouri



the regional representations of natural landscapes across the six divisions.

Natural Themes Standard

Within each natural division, Missouri's landscapes are expressed in several landscape and landform themes. Examples of landscape themes include tallgrass prairie, glades, forests, wetlands, streams and natural lakes. Landform themes include glacial plains or dissected river hills; or geologic features such as sinkholes and waterfalls. When considering potential new state parks, the division strives to include areas that improve the representation of distinctive Missouri landscapes and landforms within the state's six natural divisions.

Additional or Alternate Standards

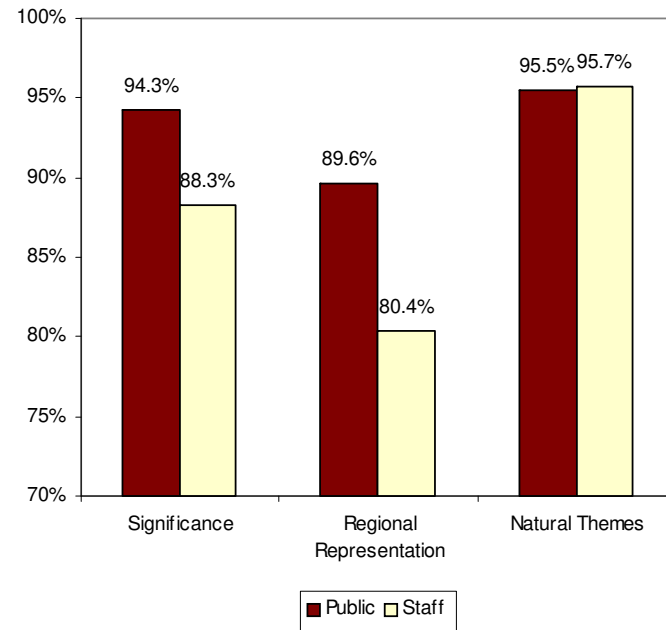
Both the public and department staff were asked to indicate whether they felt the standards of significance, regional representation and natural themes were the appropriate standards the division should continue using to review potential new additions to the system. Public agreement that these three standards were indeed appropriate standards by which to consider additions to the state park system ranged from 89.6% (regional representation standard) to 95.5% (natural themes standard). Staff responses were similar, ranging from

80.4% (regional representation standard) to 95.7% (natural themes standard). Figure 11 compares public and staff responses.

Less than 10% (3.1% of public responses and 6% of staff responses respectively) disagreed with the standards currently being used, although over one quarter (26.6% and 28.9% respectively) did indicate there were other standards the division should also consider. By far the most frequent alternate standard mentioned by the public was location. Often this meant geographically equitable and, in two instances, remote from population centers. Primarily, however, respondents wanted new parks to be easily accessible and that usually meant being close to urban centers. Several valued green space as important enough to be a standard.

The current standards use natural landscapes as the fundamental unit of organization. Of possible alternates, the most common was based on resource value – vulnerability, significance or uniqueness, and protection for endangered species or ecosystems. Some suggested that suitability for wildlife should be a standard. A number of respondents preferred simpler standards based on scenery, wilderness or general natural appearance. Several also thought that large size was an important value, although this is already a component of the "significance" standard.

Figure 11. Percentage of Respondents in Agreement with Natural Resources Standards



Consistent with more traditional wildlife management models or interest in particular species, some respondents suggested that the division base its standards on wildlife themes and focus on acquiring parks to serve as wildlife corridors and wildlife habitat. The above-mentioned endangered species interest would also fall into this category. Other resource type standards included natural areas and natural systems, such as wetlands, aquatic or karst.

To summarize the suggested alternates to the division's existing standards, respondents to this question would consider gaps in geographic distribution but also favored areas that were close to population centers or easily accessible. They placed premiums on relative scarcity and uniqueness and were concerned about protection for natural areas that are at risk or would protect wildlife and endangered species.

Proposed Missing Masterpieces

Respondents were asked to indicate whether or not the current system best represented the three natural resource standards and whether or not there were other areas that could be added. Eighty-three percent (83.1%) of the public respondents and 73.6% of staff respondents indicated that, yes, the current system best represents the three natural standards. However, nearly 40% (39.1% and 35.4% respectively) also felt that there were other areas that could be added. When asked if the division should expand the system by acquiring these new areas, 82.2% of public respondents and 72.5% of staff responses agreed that the system should be expanded.

Both sets of respondents offered specific areas or kinds of areas they felt were missing. Respondents were very sensitive to geography, and imparted a strong desire for equitability and gap-filling. Nearly all of Missouri's geographic regions were mentioned for some particular interest, but north Missouri and the Mississippi and Missouri rivers were strong favorites. North Missouri, especially northwest Missouri, was listed above all other regions. The loess hills bordering the Missouri River in northwest Missouri were singled out in several of those instances.

Many respondents also noticed the lack of state parks in the south-central Ozarks and suggested more parks in that region. The Ozarks were important to many people, sometimes regions being mentioned because of their scenic value but others often mentioned because of perceived gaps, such as the central plateau where there truly are gaps in park distribution. Finally, the big rivers were frequently mentioned as being under-represented, with the Missouri River and the bootheel region along the Mississippi listed most often. Compared to the strong interest in proximity to urban areas expressed in the question related to additional standards, relatively few mentioned this here.

In addition to missing areas, many of the responses reflected missing natural landscape types in answering this question. Topping the list by far were streams and their watersheds as a category, with a diverse list of mostly Ozark locations. Prairies were next in frequency, particularly those in north Missouri and the loess hill region. Several wetland systems were mentioned (fens, marshes, cypress swamps), along with a few types of forests such as bottomland hardwoods, pine and oak savannas. Many also thought of a particular favorite or missing landscape feature. Aquatic features such as springs, losing streams, shut-ins and small creeks were the most frequently mentioned, with caves and different kinds of geologic features next in line. Over sixty

specific locations were included in responses to this question.

To summarize from a natural history perspective, the most sought-after new parks would be in north Missouri, along the Missouri River or in the Ozarks. They would feature prairies, streams, rivers and caves.

Cultural Resources Standards

The Missouri state park and historic site system uses the following five standards to evaluate potential new historic sites: significance, chronology, geography, themes and resource integrity.

Significance Standard

The "significance" standard indicates that a state historic site should preserve significant history, archaeology or culture of Missouri. These are sites that commemorate people who have made important contributions to Missouri's history; commemorate major events in the state's history; preserve distinct architectural types or works of art; represent major trends in state history; and, preserve archaeological sites that yield important information about the past.

Chronology Standard

To understand large blocks of time, history is often divided into

chronological or time periods. The "chronology" standard is reflected by those historic sites that either represent a single moment within a time period or represent several time periods spanning individual lives and/or several generations. The goal of the state park and historic site system is to provide meaningful interpretation for all periods of Missouri's history.

Geography Standard

The "geography" standard promotes a goal to preserve Missouri's history in a way that is geographically balanced as possible. Places, people and events of statewide historical significance are not evenly distributed throughout the state. For instance, areas along major rivers have been inhabited by more people over longer periods of time, which is why there are often more historic sites within these areas. All areas of Missouri, however, contribute to its heritage and culture. Figure 12 shows the counties in which one or more historic sites are located.

Themes Standard

The study of history is divided into several broad themes. Some of these themes are economic, social, political, military and cultural/intellectual history. The goal of the system is to provide historic sites that interpret specific times, places or people within these broad themes.

commercial encroachment should be evaluation criteria. Interestingly, several respondents commented on the uneven geographical distribution of historic sites, although this standard was not given the same level of importance given to the other four.

Proposed Missing Masterpieces

Respondents were asked to indicate whether or not the current system best represented the five cultural resource standards and whether or not there were other areas that could be added. While 74.9% of the public respondents agreed that the current system best represents the five cultural standards, only 58.4% of staff respondents felt the current system best represents the five cultural standards. Nearly a third (31.6%) of the public and 40% (39.8%) of staff felt there were other cultural or historical areas that could be added to the system. When asked if the division should expand the system by acquiring these new areas, 79.8% of public responses and 67.5% of staff responses agreed that the system should be expanded.

Respondents were full of ideas for specific sites, general locations, and thematic areas they felt were missing from the system. They named almost 170 specific sites, ranging from facilities already in

public ownership, to highways, to cemeteries, to wagon wheel ruts.

Respondents identified more than 40 general locations or areas for the division to consider. Though both public and staff respondents indicated that site significance was a more important criterion than geographical balance, many responses emphasized locations where there are currently few historic sites: the south central Ozarks, northern Missouri, northwest Missouri, southern Missouri, and southwestern Missouri. Several respondents specifically mentioned that there were many areas of the Missouri that didn't have a single state historic site. A few respondents suggested that there be at least one cultural site in every county.

Responses regarding improvements to historic sites included several mentions of increasing citizen and volunteer involvement in the sites; rebuilding or restoring historic structures; and adding more historic sites. Participants also suggested improved safety measures to prevent vandalism or damage to the resources.

Interpreting Missouri's Story

When asked if the current state park and historic site system adequately told the story of Missouri's diverse culture and heritage, only 58.4% and 41.4% of the public and staff,

respectively, agreed. Those surveyed noted over 90 thematic areas they found to be underrepresented. By far, the most frequently mentioned theme was Native American history, although the system now has four sites devoted to that topic. Sites emphasizing African-Americans and other cultural groups featured prominently among the theme areas suggested, particularly sites emphasizing emerging minority populations.

Agriculture and Missouri's industrial heritage also figured prominently in the responses, as did the state's Civil War and military histories. Specific military themes mentioned included African American involvement in the Civil War, civilian experiences during the Civil War, and prisoner of war camps in Missouri during World War II. Railroads specifically, and transportation in general, were also frequently mentioned as underrepresented themes. Missouri's religious history, such as its Mormon heritage, was also suggested.

Interest in famous and influential Missourians was noted, particularly prominent 20th century Missourians. Respondents also showed an interest in the everyday lives of ordinary Missourians. Many tended to harken back to the "frontier" era, wanting to see more sites interpreting pioneers, one-room schoolhouses, farmsteads and old town sites. Despite the division's great emphasis on the bicentennial of the Lewis & Clark expedition in

the past few years, several respondents also mentioned that they'd like the system to focus more on the Corps of Discovery.

In addition to proposing new themes, many respondents addressed interpretive operations, including the need for expanded programming and staffing. Respondents also touched on an issue that emerged earlier – better promotion or marketing of historic sites. Increased or re-tooled marketing of the sites may help more Missourians find and enjoy their state historic sites.

Recreational Resources Standards

The Missouri state park and historic site system uses the following three standards to evaluate potential new parks with recreational emphasis: statewide appeal, resource-based, and sufficient acreage.

Statewide Appeal Standard

This standard indicates that a state park should have statewide appeal and provide unique opportunities to all Missouri citizens, rather than only meeting local recreational needs.

Resource-Based Standard

All state parks and historic sites offer recreation in one form or another.

The “resource-based standard” indicates that the resources of the land dictate what type of recreational activities will be offered. For instance, an off-road vehicle area would not be appropriate in a pristine wilderness area, but it could be developed in an area already altered by mining.

Sufficient Acreage Standard

A state park should be large enough to protect the physical resources of the area and to provide space for outdoor recreation and visitor needs. Missouri state parks range in size from 132 acres to over 17,000 acres; the “sufficient acreage” standard ensures that each park is large enough to sustain use and protect its resources.

Additional or Alternate Standards

Again, agreement was consistently high amongst public and staff respondents regarding the appropriateness of the three recreational resource criteria currently used to consider potential new state parks. Figure 14 compares public and staff responses for each criterion and shows that the resource-based standard was considered by both to be the most important.

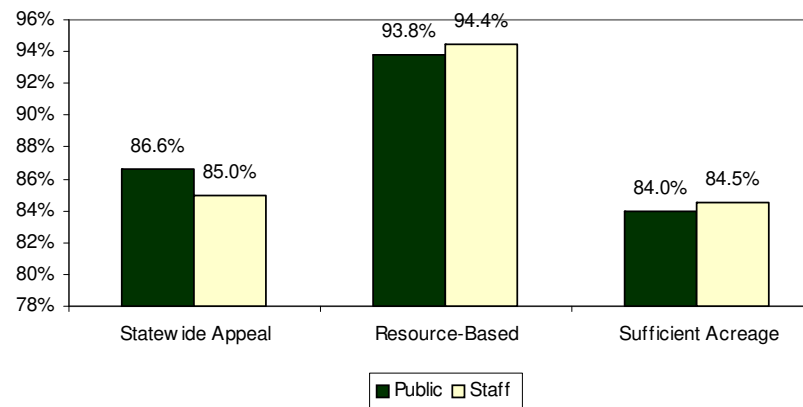
Although a high level of agreement was evidenced regarding the current

standards being used, 16.4% of public responses and 21.2% of staff responses indicated there were other standards to be considered. Suggestions for new recreation standards fell into several broad categories: location-related, standards related to specific activities or facilities, and value-based standards such as balanced development, the size of the park or the need for solitude.

By far the most frequently occurring comments were regarding size of park. Clearly, the size of a park didn't matter to a large majority of respondents. Many felt that small parks were just as valuable and should not be discounted because of their size, since smaller parks could be expanded if future needs dictated.

Another commonly repeated theme was the importance of balancing development with resource protection. Several respondents warned against the dangers of over-development. Conversely, providing a diverse range of outdoor recreation opportunities while protecting the resources was a common refrain. Specifically, several respondents mentioned the need for water-related activities while at the same time protecting the state's water resources. Additional parks to accommodate camping, hiking, fishing and other traditional activities were frequently mentioned, while a debate was waged regarding the

Figure 14. Percentage of Respondents in Agreement with Recreational Resources Standards



need for additional off-road vehicle (ORV) parks.

Proximity to users was also very important to a significant number of respondents, both staff and public alike. Several respondents specifically requested parks in or near urban areas, or within close proximity to their homes. Equity in geographic distribution of parks was important to several as well.

Proposed Missing Masterpieces

Respondents were asked to indicate whether or not the current system best represented the three recreational resource standards and whether or not there were other areas that could be added. Over

three-fourths (76.6%) of public respondents and over two-thirds (68.1%) of staff respondents agreed that the current state park system best represented the three recreational standards. In spite of this high percentage of agreement, however, over one-quarter (26.8%) of public respondents and over a third (34.4%) of staff respondents felt there were other areas that could be added to the system. While nearly three-fourths (74.0%) of the public felt that the system should be expanded to include these new areas, less than half (48.9%) of staff agreed.

Respondents were quite varied in their requests for future state parks to fill the recreation resource mission. A total of 25 specific sites were identified for possible inclusion

by respondents. The majority of suggestions from both the public and staff, however, fell into several broad categories: sites for specific recreational activities, sites to preserve specific resource types, and sites distributed in various geographic locations, particularly those near urban population centers, were mentioned most frequently.

Visitors to Missouri state parks love to be near, in, on and around water and want more of the same. The most frequently requested resource was water, and included parks on or near rivers, streams and lakes. Specifically, parks near the Missouri, Mississippi and Meramec rivers were identified as desirable areas. Additionally, activities relating to water were high on the list of future needs. For instance, fishing, floating, canoeing, and boating were given greater priority.

The need for additional parks to provide such traditional activities as camping and hiking were also mentioned. Trails for hiking, biking and equestrian uses and trail connections had strong support from survey respondents. Completing the Ozark Trail and extending the Katy Trail were frequently mentioned. However, the most frequently suggested activity-based request was for the development of additional ORV and all-terrain vehicle (ATV) riding areas. While it appeared that most of these requests came from current users, several astute respondents

requested additional riding areas as a method of dispersing use and preventing ATV users from riding in inappropriate areas such as wilderness areas and hiking trails.

Protecting caves, wilderness areas and prairies were popular resource-based responses. With increasing urbanization, places to encounter solitude were viewed as a future need. Close-to-home recreation was the sentiment expressed by many. More state parks near urban population centers and more parks distributed as geographically equitable as possible were two reoccurring themes. Requests were made for new state parks in nearly every region of the state.

Summary

Based on the survey's suggestions, if one could visualize the best new state parks from a natural environment perspective, they would be selected according to existing regional and natural standards but would preferentially be along rivers or streams in the Ozarks, in north Missouri or near urban areas. They would feature tallgrass prairies and wetlands, or unusual natural or geologic features. Wildlife would rank high among their principle features and they would protect endangered species and environments.

The best new historic sites would be selected for their significance but would be more evenly distributed throughout the state. Greater emphasis would be given to acquiring sites with scarce resources not already under public ownership, sites that reflected Missouri's cultural diversity, and those sites that were more cost-effective to restore and manage.

New parks and sites would preserve and interpret Missouri's Native American, African American and early immigrant history. Their stories would include such themes as agriculture, Civil War, industry, transportation, and religion. Prominent citizens and ordinary Missourians alike would be reflected in the interpretative messages at these new facilities.

From a recreational standpoint, the selection process for a new state park would continue to use the resource-based criterion but would also consider a proposed park's location near population centers, its proximity to water resources, its ability to protect specific resources, and its capacity to accommodate a diversity of recreational activities. Water-based activities, core traditional activities such as camping, and activities centered around non-motorized and motorized trails would be given greater emphasis at a new state park.

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