

The Consilience Group

**Quo Vadis?*



Recreational Trails in Our Sports and Fitness Present and Future

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Foreword

This purpose of this report on recreational trails is to help sports and fitness organizations prepare for the future. Over the past 30 years, thousands of miles of trails have been opened to the public and many more are planned. These trails provide car-free, conveniently accessible, low cost space for many forms of leisure exercise, so that sports and fitness organizations need to carefully consider how trails will affect their future.

The report is one of a series written for Sports Business Research Network by the Consilience Group, a Bethesda, MD, futurist consultancy. The first three completed in 2005, 2006, and 2007 are *Physical Activity Trends: Business and Policy Implications*, *Global Aging and Sports: The Impact of Aging of the World's Population on the World of Sports and Physical Activity Trends: Business and Policy Implications*, 2007 edition.

The 2007 study identified 15 trends, including the growth of recreational trails, working to make Americans physically active for good health. This and future reports cover the 15 trends in more depth than the 2007 study.

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Executive Summary

All over America, recreational trails are giving Americans car-free, aesthetically pleasing places to exercise and thereby improve their health. No one knows for sure how many of these trails there are, but one estimate is that those on land might total 250,000 miles in length, and there are at least 400 trails on water. More than 1,450 of these trails totaling 14,000 miles are on abandoned railroad rights of way or co-located with operating railroad or rail transit lines. In addition, by statute, Congress has designated eight national scenic trails, which give Americans the opportunity to travel thousands of miles continuously on foot.

Several socioeconomic factors have been favorable to trail construction over the past 20 to 30 years. The medical community now is of the opinion that exercise is essential for good health of people of all ages and both sexes. Further, because of automation and mechanization of the workplace and the home and the design of cities favoring motorized transport, Americans need to devote some of their leisure time to exercise. Competition from truck transport and railroad consolidation has led to the abandonment of railroad rights of way, which are almost ideal for trails, and federal laws and regulations have been favorable to railroads abandoning them for trail use. Moreover, the federal government provides generous technical support for trail development and financial support for trails from the Highway Trust Fund, and non-profit organizations, citizens

groups, visionary political leaders, and state and local agencies also strongly support them.

In the future, some of the factors that have been so favorable to trails in the recent past may hold and others may not. Although the specific amounts and types of recommended exercise may change, the medical community is likely to maintain its now near universally held opinion that leisure time exercise is essential for good health. But, today's children, habituated to spending hours with passive electronic media, may find themselves unable to be sufficiently active as adults; in times of economic distress, working age Americans may not adhere to recommendations to exercise for health; and erosion of retirement benefits, the burdens of caring for the frail elderly and the young and diseases of aging may prevent Americans over age 45 from being as diligent about exercise as they should be. Also, the nation's trail capacity will have to grow significantly to serve a population destined to be more than 100 million people larger by mid-century; and this will require continued trail construction, adequate but costly maintenance of trails already in use, and expanding policing to prevent accidents and criminal assaults on trail users. Federal financial support for trail construction may have less priority than in the past as a result of the recommendation of a recent high-level study commission to consolidate federal surface transportation programs from 108 to 10 focused on areas of definite federal interest. Although railroads are unlikely to re-open abandoned rail lines, especially those on which trails have already been built, more favorable economic conditions for rail transport are likely to make them less willing to abandon rail lines and to allow trails to be co-located with operating lines. In addition,

where co-location with operating railroads is allowed, planning, construction and operation of trails is more costly and complex.

People can meet their health needs for exercise on and off recreational trails. Exercise on recreational trails has cost and convenience advantages. Trail use is free whereas gymnasiums, health clubs and swimming pools charge dues or user fees. Also the growing numbers of trails are rapidly putting most Americans within easy driving or even walking distance of a trail. Participation data over the years 1993-06 show both increases and declines in participation in recreational trail sports like exercise walking, bicycling and cross country skiing and in non-recreational trail sports like exercise with equipment, tennis and golf, so these data do not provide clear-cut clues as to whether in the future people will prefer exercise on recreational trails or other forms of exercise.

Organizations like manufacturers and retailers of sporting goods used on recreational trails, walking and bicycling tour companies and those directly serving trail users like bed-and-breakfast inns, restaurants and bicycle repair shops should benefit significantly from recreational trails. Those organizations should carefully watch trends in the factors favorable and unfavorable to further trail construction and use to assure their future viability.

Trend Description

Even as health authorities bemoan America's obesity crisis caused in part by sedentary lifestyles, recreational trails have given Americans car-free places for healthful outdoor exercise, and many more are under construction or planned. Recreational trails on land are off-road, paved or unpaved linear spaces of varying lengths intended primarily for recreation and non-motorized transportation. No one knows for sure how many of these trails there are or their total length, but one government estimate is that they number in the thousands and their total length might be 250,000 miles.¹ Another government estimate breaks down land trail mileage as follows.²

Trail Type	Estimated Mileage
U.S. Forest Service	150,000
National Park Service	18,000
Bureau of Land Management (mapped)	15,000-16,000
Fish and Wildlife Service	1,800
State	50,000
Local	?
Minimum total	234,800

¹ Email from Mr. Doug Hecox of the U.S. Federal Highway Administration, February 12, 2008. Mr. Hecox further notes in his email that many trails are not in any inventory, especially those owned by local agencies or private land trusts.

² Telephone conversation with Mr. Steve Elkinton, National Trails System Program Leader, National Park Service, February 27, 2008.

The trails are hugely popular. People use them for walking, running, hiking, bicycling, inline skating and skateboarding, cross country skiing, snowshoeing and horseback riding. While most of these trails are wholly off road, the routes of some of them are temporarily on specially signed roads while their permanent routes are under construction. Motorized use (primarily snowmobiles and ATVs (all terrain vehicles)) is allowed on some of them.

These recreational trails are in both urban and rural areas of North America. Several metropolitan regions have extensive trail networks. For example,

- Denver has over 400 miles of interconnected trails and greenways.³
- Portland, Oregon, has partially completed a 140-mile trail loop around the city.⁴
- 290 miles of the 500-mile Bay Trail connecting all nine counties and 47 cities surrounding San Francisco Bay have been completed.⁵

³ Donna Erickson, *MetroGreen: Connecting Open Space in North American Cities*, 166.

⁴ Ibid. 212.

⁵ Association of Bay Area Governments, "Overview", <http://www.baytrail.org/overview.html> and email from Ms. Laura Thompson, Bay Trail Project Manager, Association of Bay Area Governments, February 25, 2008.

- The Grand Illinois Trail is a 535-mile loop hiking-biking trail between the Chicago Lakefront and the Mississippi River linking major existing trails with new off-road trails. The entire trail is open and bikeable, but some segments are temporarily on-road.⁶

The Appalachian and Pacific Crest National Scenic Trails are probably the best known of the many recreational trails in rural America. They give Americans the opportunity to hike continuously through every Atlantic Coast state except Florida and every Pacific Coast state. The Appalachian Trail extends 2,175 miles from Mount Katahdin, Maine, to Springer Mountain, Georgia, and a proposed 690-mile International Appalachian Trail would link its northern end to Forillon National Park at the tip of New Brunswick's Gaspé'.⁷ The Pacific Crest Trail runs through 2,650 miles of mostly mountainous terrain in California, Oregon and Washington from the Mexican to the Canadian borders.⁸

Many recreational trails are on railroad rights of way. As of early 2008, 1,450 rail trails were open to the public, and these trails covered a total of 14,000 miles, and another

⁶ Email from Mr. Dick Westfall, Manager Greenways and Trails Section, Illinois Department of Natural Resources, February 25, 2008.

⁷ Sandra L. Johnson, "Federal Programs and Legislation: An Overview of the National Trails System Act", <http://www.americantrails.org/resources/feds/NatTrSysOverview.html>, 1, and "Planning New Trails and Greenways: America's New Long Distance Trails", <http://www.americantrails.org/resources/planning/newlong.html>.

⁸ Pacific Crest Trail Association, "Trail Overview", http://www.pcta.org/about_trail/overview.asp and "FAQs", http://www.pcta.org/about_trail/faqs.asp, 3.

12,000 miles were planned.⁹ By contrast, there were only about 200 known rail trails as recently as 1986.¹⁰ Rail trails are in operation and planned in all 50 states.¹¹ Most rail trails, such as the Capital Crescent Trail in Greater Washington, DC, are on abandoned rights of way, while others (120 open and 93 planned as of early 2008) are on rights of way also used for intercity freight or intra-urban, light-rail service.¹² The 225-mile Katy Trail is the longest rail trail; it crosses almost the entire state of Missouri.

Other recreational trails follow the routes of America's rivers and canals. For example:

- The Blackstone River Bikeway, of which 11.5 miles are currently open to the public, will extend 48 miles through the Blackstone River Valley from Providence, RI, to Worcester, MA.¹³

⁹ Interview with Jeff Ciabotti, Jennifer Taleba, Katie Test, and Andrea Ferster of the Rails-to-Trails Conservancy, January 15, 2008, and email from Katie Test, February 26, 2008.

¹⁰ Keith Laughlin, "A Toast to Rail Trails", *Rails to Trails*, Spring 2008, 2.

¹¹ Ibid.

¹² Interview with Jeff Ciabotti, Jennifer Taleba, Katie Test, and Andrea Ferster of the Rails-to-Trails Conservancy, January 15, 2008.

¹³ The Blackstone Valley Chamber of Commerce, "About the Bikeway", <http://www.blackstoneriverbikeway.com> and telephone conversation with the office of the Blackstone River Valley National Heritage Corridor, February 25, 2008.

- The Schuylkill River Trail in Pennsylvania will ultimately parallel the entire length of the Schuylkill River over 100 miles from Philadelphia to the confluence of the Schuylkill and Delaware Rivers in Schuylkill in Delaware County.¹⁴
- The Chesapeake and Ohio National Historic Park extends 184 miles along the C&O Canal from Washington, DC, to Cumberland, MD. The canal towpath built for the mules that used to pull barges along the canal now is a hiking and bicycling trail.¹⁵

The National Trails System Act of 1968 authorized creation of the National Trails System consisting of National Scenic Trails, National Recreation Trails and Side and Connecting Trails. The category of National Historic Trails was added in 1978. Congress creates National Scenic and National Historic trails with a statute for each new trail. The Secretaries of Interior and Agriculture designate National Recreation Trails.

The eight National Scenic Trails total 14,500 miles in length of which 11,000 miles are completed and useable.¹⁶ The Appalachian and Pacific Crest Trails discussed above became National Scenic Trails by law in 1968. The other six National Scenic Trails are:

¹⁴ Montgomery County Pennsylvania, "About the Trail", <http://trails.montcopa.org/trails/cwp/view.a.1454.q.40167.asp>.

¹⁵ "Chesapeake and Ohio Canal", <http://www.fred.net/kathy/canal.html>.

¹⁶ Telephone conversation with Mr. Steve Elkinton, National Trails System Program Leader, National Park Service, February 27, 2008.

- The **Continental Divide National Scenic Trail** created in 1978. When completed, it will permit hiking for 3,100 miles through the Rocky Mountains between the Canadian and Mexican borders through the states of Montana, Idaho, Wyoming, Colorado and New Mexico. Mountain bicycling and horseback riding are permitted on some parts of the trail.¹⁷ About 2,000 miles are now complete, but the remainder will not be completed until 2014 at the earliest.¹⁸
- The **North Country National Scenic Trail** created in 1980. When completed, it will extend over 4,600 miles from Crown Point, NY, to Lake Sakakawea in western North Dakota. Use is generally limited to foot travel except in areas designated for other uses.¹⁹
- The **Ice Age National Scenic Trail**, also created in 1980, is a thousand-mile footpath entirely within the State of Wisconsin of which more than 600 miles are completed. The trail follows the outline of Wisconsin's most recent glacier. The primary uses are walking, hiking, backpacking and snowshoeing; biking is

¹⁷Continental Divide Trail Alliance, "About the Trail", <http://www.cdtrail.org>

¹⁸ Telephone conversation with Mr. Bruce Ward, Executive Director of the Continental Divide Trail Alliance, February 26, 2008.

¹⁹ "North Country Trail", http://en.wikipedia.org/wiki/North_Country_Trail.

allowed on only a few segments. Completing the trail will be a lengthy process because of the need to acquire the necessary land from private landowners.²⁰

- The **Florida National Scenic Trail**, created in 1983. When completely certified, it will meander from the Gulf Island National Seashore near Pensacola to Big Cypress National Preserve near Miami and Naples. Multiple uses are permitted.

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- The **Potomac Heritage National Scenic Trail** created in 1983 consists of a network of trails that will stretch along a 425-mile corridor between the Chesapeake Bay and the Allegheny Highlands. As of mid-2007, 17 trails had been recognized as segments of the network.²² A segment completed in 2006, the Great Allegheny Passage, is a 150-mile system of trails connecting Cumberland, MD, and Pittsburgh, PA. It connects to the C&O Canal Towpath at Cumberland and thus creates a continuous 316-mile, non-motorized corridor between Pittsburgh and Washington, DC.²³

²⁰Ice Age Park and Trail Foundation, “Frequently Asked Questions”, <http://www.iceagetrail.org/faqs.htm> and telephone conversation with Mr. Eric Sherman of the Ice Age Park and Trail Foundation, February 25, 2008.

²¹Florida Department of Environmental Protection, “Florida National Scenic Trail”, <http://www.dep.state.fl.us/gwt/guide/fnst.htm>.

²²U.S. National Park Service, “Potomac Heritage”, <http://www.nps.gov/pohe>.

²³Allegheny Trail Alliance, “The Great Allegheny Passage”, <http://www.atatrail.org>.

- The **Natchez Trace National Scenic Trail**, created in 1983, consists of four separate trails totaling 65 miles that let visitors experience on foot part of the journey on the Old Natchez Trace that ran 500 miles from Natchez, MS, to Nashville, TN.²⁴

Legislation to create two more National Scenic Trails—The New England National Scenic Trail in Massachusetts and Connecticut and the Arizona Trail extending from the U.S.-Mexico border to the Arizona-Utah border—is currently under consideration by Congress.²⁵

The designated routes of the National Historic Trails such as the Mormon Pioneer and Lewis and Clark total 32,000 miles, and the auto tour routes to let the public see these trails total almost 16,000 miles. National Historic Trails follow routes of historic importance and may be partly on water. They are intended to preserve and educate the public about important aspects of our national history and, unlike National Scenic Trails, are not primarily intended for uses involving exercise. However, there are many places for hiking and bicycling along and in the vicinity of the trail routes that give the public chances to experience the trails.²⁶

²⁴U.S. National Park Service, “Natchez Trace National Scenic Trail”, <http://www.nps.gov/natt>.

²⁵ Telephone conversation with Mr. Steve Elkinton, National Trails System Program Leader, National Park Service, February 27, 2008.

²⁶ Telephone conversation with Mr. Steve Elkinton, National Trails System Program Leader, National Park Service, February 27, 2008.

The Secretary of the Interior designates National Recreational Trails each year as part of the celebration of National Trails Day, and the Secretary of Agriculture designates National Recreation Trails in national forests and grasslands. As of early 2008, there were 1,033 of these trails in all 50 states of which 13,000 miles are open. They range in length from less than a mile to 485 miles.²⁷ Trail managers must apply for designation, and they benefit from having their trails become part of the National Trails System. National Recreational Trails are included in the on-line National Registry of Trails, and trail managers are responsible for keeping information about their trails up to date.²⁸

The fourth element of the National Trails System is Side and Connecting Trails. There are only two of these trails. Managed by Wisconsin's Department of Natural Resources, the 14-mile Timm's Hill Trail connects the Ice Age National Scenic Trail to Wisconsin's highest point and is primarily for cross-country skiing, and the 86-mile Anvik Connector ties the Iditarod National Historic Trail in Alaska to the town of Anvik.²⁹

Legislation to create a fifth element of the National Trails System—Discovery Trails—is pending in the Congress.³⁰ The first of these trails—The American Discovery Trail

²⁷American Trails, "National Recreation Trail Designations Announced for 2007", <http://www.americantrails.org/nationalrecreationtrails/07NRTapps.html>.

²⁸American Trails, "Benefits of NRT Designation", <http://www.americantrails.org/nationalrecreationtrails/BenefitsNRT.html>.

²⁹ Email from Mr. Steve Elkinton, National Trails System Program Leader, National Park Service, February 27, 2008.

extends 6,800 miles from Cape Henlopen, Delaware, to Point Reyes, California, and makes it possible for Americans to hike, bicycle or ride horses across the United States. Between Ohio and Colorado, the trail branches into Northern and Southern routes. The route “piggybacks” on existing trails, especially in urban areas.³¹

Recreational trails are being joined into networks. For example:

- Sometimes characterized as an urban alternative to the Appalachian Trail, the East Coast Greenway is a project to create a 3000-mile, traffic-free path from Calais, ME, to Key West, FL, connecting the nation’s major East Coast cities. It incorporates waterfront esplanades, park paths, canal towpaths and highway corridors. Although in many areas it follows streets and roads linking trail sections, it is now 21 percent off road and will eventually be entirely so. Currently, 545 off-road miles have been constructed, and 396 of those miles have been formally designated as part of the Greenway.³² The off-road portions are open to cyclists, walkers, skaters, skiers, equestrians and people in wheelchairs.³³

³⁰ Email from Mr. Steve Elkinton, National Trails System Program Leader, National Park Service, February 27, 2008.

³¹ Telephone conversation with Mr. Steve Elkinton, National Trails System Program Leader, National Park Service, February 27, 2008, and “American Discovery Trail”, <http://www.discoverytrail.org>.

³² Telephone conversation with Ms. Tanya Wiant of the East Coast Greenway Alliance, February 25, 2008.

³³ The East Coast Greenway Alliance, “The East Coast Greenway: Linking Cities from Maine to Florida”, <http://www.greenway.org>.

- The Great Eastern Trail, a hiking trail West of the Appalachian Trail, will create a trail network offering opportunities to hike for thousands of miles. It will extend from the Florida National Scenic Trail in northwest Florida and intersect the North Country National Scenic Trail in New York State. Along the way, it will intersect the Potomac Heritage National Scenic Trail.³⁴

The American Canoe Association (ACA) maintains a database of 400 water trails in the United States and Canada. Those it recommends may use a special ACA logo. To be so recognized a trail must:

- Be a contiguous or semi-contiguous waterway open to recreational use by paddlers
- Have public access points for paddlers
- Be covered by a map, guide, signage or a website of reasonable quality and detail and available to the public
- Have published or printed materials for the trail communicating low environmental impact ethics to trail users
- Be supported and/or managed by one or more organizations

ACA recommended 24 water trails in 2005-2006 including:

- The Apalachicola River WEA Paddling Trail System in Florida which offers paddlers a choice of 10 trips through a variety of natural environments

³⁴The Great Eastern Trail Association, “The Great Eastern Trail”, <http://www.greateasterntail.org>.

- The Cascadia Marine Trail which provides access to dozens of campsites along 2,000 miles of shoreline in Washington’s Puget Sound
- The 325-mile Maine Island Trail along the Maine Coast from Casco to Machias Bay.³⁵

Socioeconomic Trend Drivers

The Need for Healthful Leisure Time Exercise

Exercise has many health benefits, especially good cardiovascular and mental health, and the lack of sufficient exercise is a serious health risk. One can get enough exercise for good health in four phases of life: employment, domestic chores, transport and leisure. Automation of the workplace and the home make it increasingly unlikely that most Americans can get enough exercise at work or doing domestic chores. Walking and bicycling to meet one’s transportation needs are excellent ways to get the exercise one needs for good health. Unfortunately, the design of American urban areas makes transportation by private automobile the only practical way for most American adults to journey to and from work and to do errands and necessitates transport of most children and adolescents to school by private automobile or school buses. The Bureau of the Census estimates that, in 2000, 75.7 percent of Americans drove alone to work while

³⁵ American Canoe Association, “American Canoe Association 2005-2006 ACA-Recommended Water Trails”, http://www.americancanoe.org/pdf/arwt_all_detail.pdf.

only .4 percent bicycled and 2.9 percent walked³⁶, and The Centers for Disease Control and Prevention have estimated that bicycling and walking are the modes of transport for only one of every seven trips to school.³⁷ Thus, most Americans need to devote some of their leisure time to exercise.

The Need to Persuade Americans to Exercise in Their Leisure Time

Although Americans can get enough exercise for good health with fairly modest expenditures of leisure time, many do not do so, and a quarter of them get no leisure time exercise at all.³⁸ This has led to a much-publicized obesity crisis and to campaigns by many public and private organizations to persuade Americans to be more active. Thus, improvement of public health has become a major justification for trail development.³⁹ The Rails-to-Trails Conservancy, for example, is using health as one of the main supporting arguments for its 2010 Campaign for Active Transportation⁴⁰, American

³⁶ U.S. Bureau of the Census, “Journey to Work: 2000”,
<http://www.census.gov/prod/2004pubs/c2kbr-33/pdf>.

³⁷ U.S. Centers for Disease Control and Prevention, “Barriers to Children Walking and Biking to School-United States 1999”,
<http://www.cdc.gov/mmw/preview/html/mm5132a1.htm>.

³⁸ U.S. Centers for Disease Control and Prevention, “Physical Activity Statistics: No Leisure-Time Physical Activity Trend Chart”,
http://www.cdc.gov/nccdphp/dnpa/physical/stats/leisure_time.htm.

³⁹ A full discussion of the reasons why many Americans are not sufficiently active to realize the health benefits of exercise may be found in *Physical Activity Trends: Business and Policy Implications*, 2007 edition, by The Consilience Group, LLC.

⁴⁰ The Rails-to-Trails Conservancy, “The 2010 Campaign for Active Transportation”,
<http://www.railstrails.org/whatwedo/trailadvocacy/2010Campaign.html>.

Trails touts the health benefits of trails on its website⁴¹, and The Centers for Disease Control and Prevention promote uses of trails for health on their website.⁴²

Strong State and Local Support for Trails

Getting trails built and maintained requires strong local support from citizens groups; non-profit associations and foundations; strong-willed, visionary individual citizens; responsive political leaders and interested government agencies. A major barrier to trail development is that trails of more than minimal length often pass through the jurisdictions of multiple governmental authorities (i.e., federal, state, county, city, town, park district). Thus, trail development often requires the cooperation of multiple government agencies, and sometimes these agencies cannot be brought to the table without intervention of strong citizens groups. In addition, other interest groups continually argue for uses of adjacent land that would reduce trails' aesthetic value, non-trail use of the land, or alternate uses of public funds.

The Coalition for the Capital Crescent Trail, which claims to have over 2,000 financial contributors and has a very active board of directors, is an excellent example of an

⁴¹ U.S. Centers for Disease Control and Prevention, "Trails for Health", <http://www.atfiles.org/files/pdf/TrailsHealth.pdf>.

⁴² U.S. Centers for Disease Control and Prevention, "Trails for Health: Increasing Opportunities for Physical Activity in the Community", http://www.cdc.gov/nccdphp/dnpa/physical/health_professionals/active_environments/trails.htm.

effective local trail support group. The Capital Crescent Trail is a rail trail built on the right of way of the Georgetown Branch of the B&O railroad in Montgomery County, Maryland, and Washington, DC. After rail service was abandoned in 1988, the Coalition and its supporters convinced the Montgomery County Council to purchase the Maryland portion of the Georgetown Branch corridor for trail use. The seven-mile section of the trail between the Georgetown section of Washington, DC, and Bethesda, MD, was dedicated in 1996. A proposal to construct a rapid transit line has hampered development of the trail east of Bethesda to Silver Spring, MD, where the Capital Crescent Trail would connect with the future Metropolitan Branch Trail to downtown Washington. Nevertheless, the Coalition for the Capital Crescent Trail has worked tirelessly for additional development. It successfully lobbied for County Council approval on an interim trail on the Bethesda-Silver Spring section of the corridor, opening of a tunnel that keeps trail users under busy Wisconsin Avenue instead of crossing it and repairs to a damaged railroad trestle that carries the trail across Rock Creek Park and affords trail users spectacular views of the surrounding area. The Coalition also contributed substantial amounts of money for these and other improvements.⁴³

Strong Federal Government Support for Trails

Recreational trail development and maintenance is eligible for generous federal financial and technical assistance. Congress authorized expenditure of \$370 million from the

⁴³ Coalition for the Capital Crescent Trail, “A Brief History of the Georgetown Branch”, http://www.cctrail.org/CCT_history.htm.

Highway Trust Fund for The Recreational Trails Program of the Federal Highway Administration for the fiscal years 2005-2009. These funds are available, generally on an 80-percent matching basis, to develop, construct, maintain and rehabilitate trails used for hiking, bicycling, in-line skating, horseback riding, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving or using other off-road motorized vehicles. These funds are apportioned to the states by formula, and the states must allow 40 percent for diverse trail use, 30 percent for non-motorized recreation and 30 percent for motorized recreation. Significantly, the funds may be used not only for acquisition of easements, construction and maintenance but also for other necessities for successful trails like publications, monitoring and patrol programs. Moreover, these funds may be used to match other federal program funds for purposes that would be eligible under the Recreational Trails Program.⁴⁴

In addition, states may use funds, generally on an 80-percent matching basis, they receive under the Federal Highway Administration's Transportation Enhancements Program for trails and related facilities. Transportation Enhancements are 12 categories of community projects that expand travel choices and enhance the transportation experience. Trail and trail facility funding is allowed under three project categories—Pedestrian and Bicycle Facilities, Scenic or Historic Acquisitions, and Rail Corridor Preservation. For example, Pedestrian and Bicycle Facilities funds made possible construction of the 42-mile Suncoast Trail, which parallels Florida's Suncoast Parkway; Scenic or Historic

⁴⁴ U.S. Federal Highway Administration, "Fact Sheets on Highway Provisions: Recreational Trails Program", <http://www.fhwa.dot.gov/safetealu/factsheets/rectrails.htm>.

Acquisitions funds helped the State of California acquire the stationmaster's residence and an abandoned railroad line that will be transformed into a trail at the ghost town of Bodie, CA; and Rail Corridor Preservation funds helped defray the cost of the Coeur D'Alenes Trail in Idaho and the Capital Crescent Trail.⁴⁵

States also receive funds from the Federal Highway Administration's Safe Routes to School Program for infrastructure projects that substantially improve the ability of students to walk and bicycle to school such as off-street bicycle and pedestrian facilities, secure bike parking and traffic diversion improvements. These projects may be on bicycle or pedestrian pathways or trails in the vicinity of schools.^{46 47}

Through its Rivers and Trails Conservation Assistance Program (RTCA), the National Park Service of the Department of the Interior provides technical assistance to community groups and local, state, and federal government agencies, so they can conserve rivers, preserve open space and develop trails and greenways. RTCA works by invitation on projects primarily focused on organization building, planning,

⁴⁵National Transportation Enhancements Clearinghouse, "12 TE Activities", http://www.enhancements.org/12_activities.asp.

⁴⁶ U.S. Federal Highway Administration, "Fact Sheets on Highway Provisions: Safe Routes to School Program", <http://www.fhwa.dot.gov/safetealu/factsheets/saferoutes.htm>.

⁴⁷ In addition to support from FHWA's Recreational Trails, Transportation Enhancements and Safe Routes to School programs, trails have been constructed with Congestion Mitigation, Air Quality Improvement, regular Surface Transportation Program and National Scenic Byways program funds. (Source: Email from Mr. Doug Hecox of the Federal Highway Administration, February 12, 2008).

organizational development and capacity building. RTCA has worked with 300 communities nationwide on these projects. For example, RTCA staff helped develop a plan for over 50 miles of the Shafer Butte Mountain Bike Trail System in ID, 30 miles of which were opened in late 2007 and facilitated public meetings and development of a master plan for a stretch of the Homestead Trail in Nebraska.⁴⁸

Strong Private Sector Support for Trails

Trails also receive strong support from non-profit and for-profit private sector organizations. Based in Redding, CA, American Trails performs a host of functions to promote trail development and use including coordination of the biennial National Trails Symposium, which will next be held in Little Rock, AR, in November 2008, maintaining a clearinghouse of trails training resources and publishing *American Trails Magazine*.⁴⁹

The Washington-based Rails-to-Trails Conservancy has chosen a mission of creating a nationwide network of trails from former rail lines and connecting corridors to build healthier places for healthier people. In furtherance of this mission, it fights for continued federal support for trail development, provides technical assistance and information to

⁴⁸ U.S. National Park Service, “What is the Rivers and Trails Program?”, <http://www.nps.gov/ncrc/programs/rtca>.

⁴⁹ American Trails, “About American Trails: Who We Are and What We Do”, <http://www.americantrails.org/about.html>.

local trail building groups and actively advocates for preserving the federal railbanking law in its present form.⁵⁰

The American Hiking Society from its base in Silver Spring, MD, has dedicated itself to “promoting and protecting America’s hiking trails, the natural areas that surround them, and the hiking experience itself.”⁵¹ This mission includes advocacy for federal financial support for trails, celebrating and obtaining corporate sponsorship for the annual National Trails Day each June, publishing *American Hiker* and making grants from its National Trails Fund for land acquisition, constituency building campaigns and traditional trail work projects.⁵² American Hiking also organizes “volunteer vacations” in which volunteers construct or rebuild footpaths, cabins and shelters.⁵³

A number of private firms such as Gore-Tex, Nature Valley, Pepsico, and Rossignol sponsor the annual Winter Trails events to promote snowshoeing and cross-country skiing in multiple locations nationwide.⁵⁴

⁵⁰ Rails-to-Trails Conservancy, “About Rails-to-Trails Conservancy”, <http://www.railstrails.org/whoweare/index.html>.

⁵¹ American Hiking Society, “We’re With You Every Step of the Way”, <http://www.americanhiking.org/index.html>.

⁵² American Hiking Society, “Alliance of Hiking Organizations: National Trails Fund”, <http://www.americanhiking.org/alliance/fund.html>.

⁵³ American Hiking Society, “Events & Volunteer Opportunities”, <http://www.americanhiking.org/events/index.html>.

⁵⁴ The National Snow Industries Association, “Winter Trails”, <http://www.wintertrails.org>.

Relative Ease of Building Rail Trails

Building recreational trails on railroad rights of way is much easier than in other locations for several reasons:

- The necessary parcels of land are already assembled; in many instances, railroads obtained the necessary easements in the 19th century when the country was far less densely populated; assembling comparable tracts of land is far more difficult and costly today.
- Railroad rights of way are wide enough to permit two-way traffic by a variety of users; they are generally 100 to 200 feet wide with the widest in the West and the narrowest in the East. To accommodate multiple types of users, a trail should have two paved lanes (one in each direction for cyclists, skaters, and those in wheelchairs) and all-weather, soft-surfaced lanes to the side of each paved lane for runners and walkers. This translates into recommended trail widths of 10 feet in rural areas, 12 feet in suburban areas and 14 feet in urban areas.⁵⁵
- The base for the railroad tracks is usually an adequate base for the trail surface, although in some urban areas the base has to be rebuilt.

⁵⁵ Charles A. Flink, Kristine Olka, and Robert M. Searns, *Trails for the Twenty-First Century*, (Island Press: 2001), 61.

- The railroad grade is usually no more than 3 percent and thus acceptable for recreational use.⁵⁶ The relatively level surfaces of rail trails make them easily accessible for almost everyone, including people with disabilities. In addition, railroad grades also permit excellent visibility along the trails.⁵⁷

Since about 1960, the economic, legal and regulatory climate has been favorable for building rail trails. In its peak year of 1916, the US rail system included 270,000 miles of track.⁵⁸ However, a combination of competition from the trucking industry and railroad consolidation gradually reduced the size of the network, and during the period 1960-80 railroads were abandoning 5,000 to 7,000 miles of rights of way annually.⁵⁹ Thus, today, the nation's rail freight network totals about 140,000 miles.⁶⁰ In 1983, Congress, seeing that these abandoned rail corridors would be very difficult to re-assemble should they ever be needed again for resumption of rail service or another public purpose, passed the Rails- to-Trails Act which allows the federal government to regulate the disposition of lines railroads wish to abandon and thus to save them for trail use by "railbanking" them.

⁵⁶ Interview with Rails-to-Trails Conservancy personnel, January 15, 2008.

⁵⁷ Email from Mr. Doug Hecox of the Federal Highway Administration, February 12, 2008.

⁵⁸ The Rails-to-Trails Conservancy, "Railbanking and Rail-Trails: A Legacy for the Future", http://www.railstrails.org/resources/documents/resource_docs/Railbankingreport, 1.

⁵⁹ Interview with Rails-to-Trails Conservancy personnel, January 15, 2008.

⁶⁰ Cambridge Systematics Inc., *National Rail Freight Infrastructure Capacity and Investment Study*, (Cambridge, MA, September 2007), 4.1, http://www.aar.org/PubCommon/Documents/natl_freight_capacity_study.pdf.

That act allows railroads to free themselves of unprofitable lines by donating, selling or leasing the right of way to a qualified private or public agency for use as a trail. Once management of the trail is transferred to a public or private agency in a process administered by the federal Surface Transportation Board, the trail manager can remove the railroad ties and tracks or the railroad can sell them, but the trail manager may not erect any permanent structure on the right of way, and any railbanked line is subject to future restoration of rail service including by railroads other than the abandoning one.⁶¹ (However, the abandoning railroad has the first right of re-activation.⁶²) Railbanking is economically advantageous to the railroads because the public or private agency taking over a railbanked corridor assumes financial and legal responsibility for it, thereby relieving the railroad of maintenance costs and property taxes while preserving the abandoning railroad's right to resume rail service.

Sports/Fitness Business Trend Drivers

Sports and fitness businesses are supporting trails primarily by producing and selling a wide variety of equipment, apparel and footwear that make recreational trail use possible and popular. These products include bicycles, cross-country skis, snowshoes, hiking boots, backpacks, hydration systems and many others. The technologies incorporated in these products improve continuously and protect against injuries, allow measurement and

⁶¹ Rails-to-Trails Conservancy, *op.cit.*, 5.

⁶² Email from Mr. Jeff Ciabotti of The Rails-to-Trails Conservancy, February 25, 2008.

recording of athletic achievements, entertain users and keep them comfortable and connected as they exercise.⁶³

Besides selling products that facilitate trail use, the sporting goods retailer REI indirectly encourages trail use in its adventures program. For example, in 2008, REI offers hut-to-hut hiking on the Appalachian Trail in the White Mountains of New Hampshire and backpacking along the Northern Loop Trail in Mt. Ranier National Park.⁶⁴

In addition to selling well-known outdoor recreation products, LL Bean philanthropically supports non-profit organizations which develop and maintain recreational trails such as the American Hiking Society, Appalachian Mountain Club, Appalachian Trail Conservancy and the Upper Valley Trail Alliance.⁶⁵

⁶³ There is a full discussion of the impact of continually improving technology on exercise in *Physical Activity Trends: Business and Policy Implications, 2007 edition*, by The Consilience Group LLC.

⁶⁴ REI, “North America Trips”, <http://www.rei.com/adventures/activity/hike.html>.

⁶⁵ LLBean, “About L.L.Bean: Conservation Partners”, <http://www.llbean.com/customerService/conservationAndEnvironment/Index.html>.

What Might the Future Hold?

Will People Exercise Enough for Health?

An apparent certainty for the future of all exercise, including exercise on recreational trails, is that medical authorities will continue to agree that exercise is essential for good health. Although specific medical exercise recommendations may change, prevalent medical opinion, supported by growing scientific evidence, is that people of all ages and both sexes need regular exercise for both their physical and mental well-being.

Another apparent certainty is that leisure time will likely remain the one phase of life in which most Americans will be able to exercise enough to meet their health needs. Health authorities such as the Centers for Disease Control and Prevention (CDC) include activities people normally think of as exercise like walking and bicycling in a larger category they call “physical activity”, which includes such chores as dusting and vacuuming, scrubbing floors or washing windows, and moving or pushing furniture.⁶⁶ However, people are unlikely to meet their health needs entirely with such activities because they are not enjoyable and most people are not likely consistently to spend

⁶⁶ U.S. Centers for Disease Control and Prevention, “Physical Activity for Everyone: What are some examples of activities and their intensity levels?”, <http://www.cdc.gov/nccdphp/dnpa/physical/measuring/examples.htm>.

enough time doing them.⁶⁷ In addition, there is very unlikely to be less automation of the home and workplace, and switching from motorized to non-motorized transport will occur slowly, if at all, so the health benefits of exercise will have to be realized through active leisure activities like those on recreational trails.

What is fairly certain today, but less certain in the future, is whether Americans on average have enough leisure time for exercise. While Americans may feel rushed and believe they have no or little leisure time, objective time use studies show they do have enough of it for healthful exercise. For example, the 2006 study *Changing Rhythms of American Family Life* shows that even working parents of minor children have adequate leisure time for exercise.⁶⁸

The least certain question for the future of all exercise is the extent to which Americans will get **and act** on the message that they should devote a certain percentage of their leisure to exercise. Public opinion is sympathetic to the idea that exercise is a good

⁶⁷ The CDC recommends that adults engage in moderate intensity physical activity at least 30 minutes a day 5 or more days a week or vigorous intensity physical activity 20 minutes a day at least 3 days a week (See U.S. Centers for Disease Control and Prevention, “Physical Activity for Everyone: Recommendations”, <http://www.cdc.gov/nccdphp/dnpa/physical/recommendations/index.htm>).

⁶⁸ Suzanne M. Bianchi, John P. Robinson, and Melissa A. Milkie, *Changing Rhythms of American Family Life*. (New York, The Russell Sage Foundation, 2006), Tables 5A1 and 5A2. According to the study, mothers in 2000 had 31.6 hours and fathers 35 hours of leisure time per week, but they devoted only 1.4 hours per week to fitness activities.

thing.⁶⁹ Nevertheless, the CDC estimates that 50 percent of Americans do not get enough of it for good health.⁷⁰

The tide does appear to be turning in favor of more active leisure. Fifteen trends appear to be moving Americans in the right direction. The Consilience Group, LLC, identified these trends in *Physical Activity Trends: Business and Policy Implications, 2007 edition*. The widespread development of recreational trails is one. Another is the continual technological improvements incorporated into products that make trail use possible and popular. The others are:

- Support of many organizations like the Rails-to-Trails Conservancy and Curves Clubs for a more active lifestyle
- Many more opportunities to participate in athletic events after high school and college like the National Multiple Sclerosis Society's MS 150 bike rides
- Increasing numbers of exercise tours offered by companies like Country Walkers and Vermont Bicycle Touring

⁶⁹ Studies by American Sports Data consistently show that 62-64% of Americans believe in the importance of exercise and would like to exercise more than they do and that 15-17% believe exercise is very important while only 2% did not believe in exercise at all. (Source: Harvey Lauer, *The New Americans: Defining Ourselves through Sports and Fitness Participation*, American Sports Data, 2006, 70.).

⁷⁰ U.S. Centers for Disease Control and Prevention, "Physical Activity for Everyone: Recommendations", <http://www.cdc.gov/nccdphp/dnpa/physical/importance/index.htm>.

- New forms of sports and exercise and re-emergence of old ones like climbing, bicycle polo, and some originally intended for children like dodgeball and kickball
- Changes in laws, regulations and social attitudes making exercise more possible for women, people over 40, and the physically and mentally challenged. Title IX and changing attitudes have made women majority participants in some sports and fitness activities and a large minority in others.
- Weakening of forces favoring dependence on private automobile transport by walkable and bikeable communities like the King Farm development in Rockville, MD
- Incorporation of exercise into the work lives of people with sedentary jobs by employee wellness programs, mandatory walking between work areas and stair climbing
- Facilitation of exercise in the home by dedication of home space to exercise and electronic versions of training programs like that of Oprah Winfrey's personal trainer

- Emergence of active video games such as those on the Wii games system that simulate tennis, baseball, golf, bowling and boxing
- Incentives such as tests that compare the body's real age to its chronological age, providing a scientific basis for workouts to improve conditioning
- Efforts by private groups like Moms Team and the National Alliance for Youth Sports to make youth sports more inclusive and fun
- Federally supported efforts by states and localities to provide safe routes for children and adolescents to walk and bicycle to school
- Reform of school physical education programs

With so many factors working in favor of exercise for health, what could delay or prevent reaching a tipping point when the vast majority of Americans ***get and act on the message of health authorities?*** One factor is the popularity of passive electronic entertainment, especially for children. Almost all American households have at least one television set, and the average American family has 2.75.⁷¹ According to a 2005 Department of Labor

⁷¹ National Institute on Media and the Family, "Fact Sheet-Children and Television", http://www.mediafamily.org/facts/facts_childandtv.html.

time use study, Americans over age 15 spent 2.6 hours a day watching television.⁷² Children's and adolescents' television watching is of even greater concern. Many older adults remember a time before television, and those in middle age can remember when the average family had only one set in its living room, so that parents could easily control the amount of time children and adolescents spent watching television. Today the situation is much different. A policy statement of the American Academy of Pediatrics says that 32 percent of 2-to-seven-year olds and 65 percent of 8-to-eighteen-year olds have television sets in their bedrooms and that children spend an of average 6 hours and 32 minutes per day on electronic media.⁷³ Thus, many Americans, especially the young, may be building, or may have already built, habits of inactivity that will be difficult to break.

Another possibility is that working-age Americans may have significantly less and/or less predictable leisure time in the future. In the event of extreme economic distress, working-age adults (between the ages of 18 and 64) might be forced to work multiple low-wage jobs to make ends meet. They would then lack the necessary leisure time for exercise and/or have less control over their work schedules and thus be unable to set aside regular exercise time.

⁷² U.S. Department of Labor, Bureau of Labor Statistics, "American Time Use Survey: Charts by Topic: Leisure and Sports Activities", <http://www.bls.gov/tus/charts/leisure.htm>.

⁷³ American Academy of Pediatrics, Committee on Public Education, "Children, Adolescents and Television", <http://aapolicy.aapublications.org/cgi/content/full/pediatrics:107/2/423>.

Three factors could diminish the leisure time older Americans (over 45) have for exercise.

- *The erosion of retirement benefits, which from World War II until early this century allowed many Americans to retire in their 50's with ample leisure time for sports and fitness activities:* In this decade, many private employers have eliminated or sharply curtailed defined benefit pension plans. At the same time, there is ample evidence that today's workers are not saving enough to self-finance their retirements. Thus, increasingly later retirements are likely in coming decades. Moreover, even people who will still be able to retire in their 50s or 60s, may decide to continue working voluntarily either because, being healthier longer, they wish to do so or because their employers provide attractive incentives in order to have sufficient numbers of skilled employees.
- *Care-giving responsibilities:* While medical advances have lengthened healthy life, they have also permitted many more Americans to live into a period of frail old age and thus created an increasing care-giving burden for those in middle age. A variety of social factors have sharply increased the number of grandparents, who are primary caregivers for minor grandchildren.
- *Diseases of aging—Alzheimer's disease, osteoporosis, diabetes and obesity:* If forecasted major increases in the incidence of all of them are realized, a large number of older Americans will be unable to exercise, although medical

breakthroughs may prevent realization of the forecasts and exercise participation can also stave off these diseases.⁷⁴

Will People Exercise for Health on Recreational Trails?

Today on recreational trails people enjoy any form of exercise involving movement from place to place (i.e., running, walking, bicycling, in-line skating, skateboarding, snowshoeing and cross country skiing, etc.) and experience areas they cannot see from their cars or homes. Because they are becoming more numerous and on public lands, trails offer accessible, convenient places for exercise. They are low cost because they do not charge user fees and people can get the exercise they need on them by simply walking briskly in low-cost comfortable shoes or by riding a second-hand bicycle.

In the future, the extent to which use of recreational trails will provide the health benefits of exercise depends on two factors:

1. The continued adequacy of recreational trail capacity; and
2. People's preference for exercise on recreational trails versus exercise at other venues such as private homes, health clubs, swimming pools, tennis courts, etc.

⁷⁴ The increase in older people's exercise participation and factors that might limit it in the future are discussed more fully in the Consilience Group study, *Global Aging and Sports: The Impact of Aging of the World's Population on the World of Sports*. That study also looks at the possibility of medical science breakthroughs that would result in development of an "exercise pill" which would give people the health benefits of exercise without the leisure time expenditure now necessary to gain those benefits.

Adequacy of Future Recreational Trail Capacity

Aside from changes in individual preferences, whether future trail capacity will be adequate to serve a nation with a population of over 400 million at mid-century compared to over 300 million today depends on the following factors:

1. Whether enough new trail construction occurs;
2. Whether trails will be adequately maintained;
3. Whether trails will be adequately policed;
4. The extent to which federal financial support will continue; and
5. Whether rail trails can continue to grow as they have in the past.

New trail construction. No government agency collects information on planned new trails nationwide.⁷⁵ However, as noted above, the Rails-to-Trails Conservancy expects that the mileage of rail trails will nearly double from around 14,000 miles today to around 26,000 miles over the next 20 years,⁷⁶ six of the eight National Scenic Trails have not been completed, two more National Scenic Trails and creation of another category of trails in The National Trails System await Congressional approval and other trail-building efforts like The East Coast Greenway and the Great Eastern Trail are far from completion. Whether enough of the additional trails will be in or near metropolitan areas

⁷⁵ Email from Mr. Doug Hecox of the U.S. Federal Highway Administration, February 12, 2008.

⁷⁶ Email from Ms. Katie Test of the Rails-to-Trails Conservancy, February 13, 2008.

where the majority of the nation's population lives now and will continue to live is a key uncertainty.

Trail maintenance. Adequate maintenance will become a much more significant issue in the future as more trails are built and those in use become worn out. While trail users will put up with cracked pavement and eroded spots for a time, they surely will stop using trails in such bad condition they become dangerous or uncomfortable to use. To assure safe operation, many trails must be re-surfaced or re-graded periodically. The frequency of required re-surfacing ranges from yearly for trails surfaced with wood chips to over 20 years for concrete-surfaced trails, and resurfacing costs vary from as little as \$5 per linear foot for crushed stone to \$25 per linear foot for concrete.⁷⁷ In addition, trails require regular routine maintenance measures such as replacement of regulatory and directional signs, repainting of pavement markings, trimming of trees and shrubs to maintain visibility, cleaning of drainage systems, mowing of shoulders and trash removal.

⁷⁸ Trail managers can and do accomplish some of the necessary maintenance with volunteer labor. Trail maintenance is likely to remain an appealing volunteer activity because trails increase adjacent property values⁷⁹ and preserve part of the natural environment in a fast urbanizing world. However, public agencies will have to provide the major maintenance, especially resurfacing, and trail maintenance will have to

⁷⁷ Charles A. Flink, Kristine Olka, and Robert M. Searns, op. cit., 158-159.

⁷⁸ Ibid.

⁷⁹ For a study of how trails affect home purchase decisions, see <http://www.unomaha.edu/recadmin/trails/omahatrails.pdf/>.

compete with construction and maintenance of roads, bridges and other facilities for scarce public funds. Over the past 30 years, experience has shown that politicians enthusiastically support and take credit for new trail construction. Whether they will in the future as enthusiastically support less visible, but equally necessary, trail maintenance is uncertain.

Trail policing. More policing of trails is also likely to be needed in the future as trail mileage grows but the trail user population grows even faster. Policing involves regulating traffic to prevent accidents and crime prevention. If trail users feel the risk of accidents is too great or if they feel they will be criminally assaulted while using trails, they will eventually stop or cut down their trail use. Traffic congestion clearly can be a problem on trails in metropolitan areas, and such congestion can and does cause accidents, if people do not take sensible precautions. A good example is the experience of the heavily used Washington and Old Dominion Trail, which stretches 44 miles between Alexandria and Purcellville, Virginia. Between 1997 and 2006, five serious accidents on that trail resulted in 4 fatalities and at least 2 serious injuries to cyclists.⁸⁰ More than 2 million people a year use that trail, and a Washington Post article described the traffic situation on it thusly:

Once a quiet getaway for lazy afternoon bicyclists and early morning strollers, the trail has turned into a crowded commuter alley on weekdays and an overcrowded recreational destination on

⁸⁰ Mary Cate Cannistra, “Accidents Along the Washington and Old Dominion Trail”, *The Washington Post*, August 18, 2006, <http://www.washingtonpost.com/wp-dyn/content/graphic/2006/08/18/GR200608180069.html>.

weekends, a place where sometimes speeding cyclists, in-line skaters, walkers, joggers and others fight for a slice of the pavement, with increasingly dangerous results.⁸¹

There are no national statistics and only scattered reports of criminal assaults on recreational trails such as a series of three sexual assaults over a 13-month period in 2006-7 on the heavily forested Four Mile Run Bike Path in Arlington County, Virginia.⁸² The fact that the Four Mile Run Bike Path was heavily forested at the time of the assaults supports the contention of trail management authorities that good environmental design can prevent crime.⁸³

Continued federal financial support. Whether the generous financial support for trails from the federal Highway Trust Fund will continue is likely to be an issue in the debate over re-authorization of transportation funding for FY 2010-14. In 2005, Congress legislatively created the National Surface Transportation Policy and Revenue Study to study the nation's current and future transportation needs and financing options.⁸⁴ The Commission issued its report in January 2008. From the point of view of trail

⁸¹ Candace Rondeaux, "Bicycling on Popular W& OD Trail No Longer A Breeze", *The Washington Post*, August 18, 2006, <http://www.washingtonpost.com/wp-dyn/content/article/2006/08/17/AR2006081701613.html>.

⁸² Daniela Deane, "Actions Taken to Make Path Safer", *The Washington Post*, August 6, 2007, B01, http://www.washingtonpost.com/wp-dyn/content/article/08/05/AR2007080501491_pf.html.

⁸³ Joel McCormick, "Better Park Design Can Prevent Crime", American Trails, <http://www.americantrails.org/resources/safety/designcrime.html>.

⁸⁴ National Surface Transportation Policy and Revenue Study Commission, "About the Commission: Mission and Objectives", <http://www.transportationfortomorrow.org/about>

construction, the most significant recommendation in the report is that the current federal surface transportation programs be consolidated from 108 to 10.⁸⁵ The emphasis in these consolidated programs would be on support of activities in which there is a definite federal interest. Federal support for trails would appear to be appropriate under only one of these 10 consolidated programs—Environmental Stewardship—and within only one of the four environmental stewardship sub-programs, Transportation Enhancements.⁸⁶ Thus, if Congress follows the Commission’s guidance, trail construction and development after 2009 will have less priority than in the past and trail advocates will have to make up for lost federal funding with more state and local government and private funds. More private charitable funding might well become available because non-profit foundations and associations already support many trails. However, Congress may face pressure to continue significant support for trails. As more people see and take advantage of trails near them and see proximity to trails increase property values, a good bet is that even stronger public support will appear and become evident in formation of citizen action groups, testimony at local, state and federal government hearings, and letters to the editor and members of Congress.

Continued growth of rail trails. Expansion of rail trails is especially important to assure adequate future trail capacity because their construction does not require obtaining the

⁸⁵ U.S. National Surface Transportation Policy and Revenue Study Commission, *Report of the National Surface Transportation Policy and Revenue Study Commission, Volume I*, http://www.transportationfortomorrow.org/final_report/pdf/volume_1.pdf.

⁸⁶ Ibid.

necessary land—a step that takes years in construction of other trails. Besides financing, there are three potential barriers to future growth of rail trails:

1. Reversion of abandoned rail corridors to railroad use;
2. Constitutional right of adjacent property owners to compensation; and
3. Growing dependence on rail transportation

Future rail trail capacity could be diminished if abandoned rail corridors are again used for rail service instead of trails. Although railroads have a right to return railbanked corridors to railroad use, they rarely do so because they abandon rail corridors with little potential for future profitable railroad service. Return to railroad use is especially unlikely if a trail has already been built in the railroad corridor because of the potential for bad public relations and even lawsuits.⁸⁷

The need to compensate landowners can limit future rail trail growth because of lawsuits over whether landowners are entitled to compensation. A common method by which railroads acquired land for rights of way was obtaining easements from landowners. When railroads give up use of such land for trails, landowners, who agreed to such

⁸⁷ United States General Accounting Office, *Surface Transportation: Issues Related Preserving Inactive Rail Lines as Trails*, October 1999, <http://www.gao.gov/new.items/rc00004.pdf>.

easements, may argue that conversion of the land to trail use constitutes a taking of their land for public purposes and that they have a Constitutional right to compensation for it. In such cases, litigation over whether compensation is due can delay trail construction. Although trail advocates like the Rails-to-Trails conservancy disagree, the current state of the law is that conversions of rail corridors, where railroads have obtained the land with easements from adjacent landowners, to trail use generally do constitute takings requiring compensation under the Constitution. A Supreme Court ruling would be necessary to overturn various court decisions that such conversions are takings, but such a ruling is unlikely in the near future. Rather than appeal these takings decisions to the Supreme Court, the Department of Justice has settled with landowners out of court.⁸⁸

Growth in the nation's dependence on rail transport may limit rail trail growth in the future for two reasons. One is that railroads will abandon fewer miles of track. In that case, more trails will have to be co-located with operating railroads, thus increasing the cost and complexity of trail development and operation. Second, the railroads may wish to exploit the use of their corridors more fully and allow fewer trails in them. Recent increases in fuel cost have made rail freight much more competitive with truck transportation. In addition, demand for rail freight transportation service has increased dramatically chiefly because of the need to transport goods imported from Asia from West Coast Ports and to haul coal from the Wyoming coal fields. Railroads are investing

⁸⁸ Interview with Rails-to-Trails Conservancy personnel, January 15, 2008, and Richard A. Allen, "Does the Rails-to-Trails Act Effect a Taking of Property?", <http://www.zsrlaw.com/publications/articles/Rails%20to%20Trails%20-%20Final%204-05%20.pdf>.

heavily in facilities and equipment to meet this new demand. Since 2000, they have spent \$10 billion on expansion of tracks and freight yards and on locomotives, and they plan to spend \$12 billion more.⁸⁹ Moreover, the U.S. Department of Transportation expects rail freight transportation demand to double by 2035 and investment of \$148 billion in railroad facilities will be needed to meet that demand increase.⁹⁰ Trails co-located with operating railroad lines (rails with trails) are more costly and complex to develop, maintain and operate than trails on abandoned corridors for several reasons:

- Railroads may be unwilling to allow trails on their rights of way because such use could reduce the railroad's ability to add main track and sidings. In cases in which the railroads are willing to allow trail use, trail design has to provide for future additional capacity.
- Railroads may fear personal injury lawsuits from trail users, although recreational use statutes in all states provide them some protection.
- Trail design must include proper setback (distance) from the centerline of the railroad tracks to the edge of the trail, and proper setback depends on the speed of the trains using the track, so that trail planners must consider potential as well as current train speeds.

⁸⁹ Daniel Machalaba, "New Era Dawns for Rail Building", *The Wall Street Journal*, February 13, 2008, 1.

⁹⁰ Cambridge Systematics Inc., op. cit., 7.1.

- Safety must be assured at points where the trail crosses the tracks. At a minimum, this involves marking of crossings, but it also can necessitate costly tunneling under or bridging over the tracks.
- Railroads may insist that trail managers construct and maintain costly fences or natural vegetative barriers to separate the trail from the tracks, and they may require that the fencing be removable when track maintenance is required.⁹¹

Preference for Exercise on Recreational Trails or at Other Venues

A key question for everyone with an interest in trail development is to what extent people will prefer exercise on recreational trails or other forms of exercise. This question cannot be answered with certainty. Exercise on trails is a low cost, convenient endeavor. There are no annual dues or admission fees as at a gymnasium, health club or swimming pool, comfortable casual clothing is fine, and no rearrangement of the home or purchase of expensive, hard-to-assemble machines is necessary. Trail access is becoming increasingly convenient for Americans as metropolitan area leaders see trails as a necessary urban amenity. For example, under the leadership of Mayor Rick Baker, the city of St. Petersburg, FL, by the end of 2008 will have increased its trail mileage from 10

⁹¹ U.S. Department of Transportation, *Rails-with-Trails: Lessons Learned*, Section V, <http://www.fhwa.dot.gov/environment/rectrails/rwt/index.htm>.

to 98 during the Mayor's term of office, and Mayor Baker hopes his city will have 150 miles of trails by the end of his tenure.⁹²

Another way to think about preference for exercise on recreational trails to other forms of exercise is to study exercise participation trends of the recent past. Projecting past participation trends into the future might well neglect the influence of new habitual exercisers attracted to participation by the message of health authorities and lead to serious strategic planning misjudgments. Still, past participation data can provide some clues to what will happen in the future. A key assumption is that the vast majority of Americans will likely meet their exercise needs by participating in individual rather than team sports primarily because of the required time and training commitments required for team sport success. People can participate individually or with only a single playing partner in sports like swimming, golf or tennis that are not played on recreational trails or in sports involving movement from place to place like walking, bicycling or canoeing that are, so comparison of past participation trends in these two categories is appropriate. Sports Business Research Network maintains time series of National Sporting Goods Association sports participation data on its website. Here are what those data show about recent trends in individual recreational and non-recreational trails sports participation.⁹³

⁹² Terry Tomalin, "Rick Baker: Blazing City Trails", *Rails to Trails*, Spring '08, 14-15.

⁹³ Sports Business Research Network, "Market Research Summaries-Participation", <http://www.sbrnet.com?MarketResearchSummaries-Participation.asp>.

Recent Recreational Trail Sports Participation Trends

Walking: The total number of Americans walking frequently for exercise increased with fluctuations from nearly 22 million in 1993 to over 30 million in 2006.

Hiking: The total number of Americans hiking frequently for exercise increased from 2.2 million in 1993 to 5.0 million in 2002, declined to 3.8 million in 2003 and then varied between 4.6 and 4.8 million from 2004-2006.

Running and Jogging: The total number of Americans running and jogging frequently increased with fluctuation from 4.9 million in 1994 to 7.1 million in 2006.

Bicycling: The total number of Americans frequently bicycling declined from 8 million in 1993 to 4.7 million in 2006.

In-line Skating: The total number of Americans frequently engaging in in-line skating increased from 5.6 million in 1993 to 8.8 million in 1998 and then sharply declined to 2.4 million in 2006.

Cross Country Skiing: The total number of Americans frequently skiing cross country increased from 1.1 million in 1993 to 1.3 million in 1996 and then declined to .1 million in 2005 and 2006.

Canoeing: The total number of Americans frequently canoeing rose with fluctuations from 1.5 million in 1993 to 2.1 million in 2006.

Recent Non-Recreational Trail Sports Participation Trends

Swimming: From 1993-06, the total number of Americans swimming frequently for exercise fluctuated between 2.4 and 3.9 million with the peak of 3.9 million reached in 2001 a decline to 2.8 million in 2003 and a rebound to 3.7 million in 2006.

Exercising with Equipment: The total number of Americans frequently exercising with equipment rose with fluctuation from 10.2 million in 1993 to 16.9 million in 2005 and fell to 14.7 million in 2006.

Working out at Clubs: The total number of Americans frequently working out at clubs rose significantly from 5.6 million in 1993 to 13.5 million in 2006.

Golfing: The total number of Americans golfing frequently rose from 4.9 million in 1993 to 6.4 million in 1999 and 2000 and then declined to its 1994 level of 4.6 million in 2006.

Tennis: The total number of Americans playing tennis frequently declined from 3.5 million in 1993 to 2.1 million in 2006.

Alpine Skiing: The total number of Americans frequently engaging in alpine skiing fluctuated significantly between .5 million and 1.2 million during the 1993-06 period.

On the basis of such recent past participation data, one must conclude that the American public's preference will not tilt significantly to recreational trail or to non-recreational trail sports participation.

Effects on Sports and Fitness Organizations

The emergence of thousands of miles of easily accessible trails represents a great opportunity for sports and fitness organizations serving people who engage in the forms of exercise practiced on recreational trails and a potential threat to those serving people who engage in indoor exercise or other forms of outdoor exercise. While some factors like increased dependency on rail transportation and changing federal transportation funding priorities may cause trail construction and development to slow in the future, the trails already constructed and destined to open in the near future are likely to remain powerful attractions to Americans wishing to be more active. Consequently, sports and fitness organizations serving devotees of other forms of exercise may have to make a stronger case that the benefits they offer exceed their costs than they otherwise would.

The most obvious for-profit beneficiaries of the recreational trails boom are manufacturers and retailers of sporting goods for forms of exercise practiced on recreational trails. The existence of conveniently accessible and aesthetically pleasing

trails lets them argue that even in an increasingly urbanized society there are plenty of places available for safe use of the products they manufacture and sell. Recreational trail availability can be expected to favorably affect sales of products for use in walking, hiking, running and jogging, cycling, canoeing, kayaking, skateboarding, in-line skating, cross country skiing and snowshoeing. Sports Business Research Network maintains time series of National Sporting Goods Association sporting goods sales data on its website. The sales data present a mixed picture, indicating that factors besides recreational trails influence demand for such products. For example, they show a fairly steady increase in sales of cross trainer shoes from 17.3 million pairs in 1993 to 32.6 million pairs in 2006⁹⁴ but a decline in sales of mountain bicycles from 4.5 million in 1993 to 2.9 million in 2006.⁹⁵

Exercise tourism companies can also be expected to benefit from recreational trails. Many companies like Backroads and Bike Vermont offer inn-to-inn tours by bicycle; others like Country Walkers offer walking tours. These routes for these tours are often on lightly traveled country roads, but they also can be wholly or partly on trails. For example, Country Walkers offers trips using trails in New York State's Adirondack Mountains and in national parks in Colorado and Utah.⁹⁶

⁹⁴Sports Business Research Network, "Market Research Results: Footwear Cross Training", <http://www.sbrnet.com/research.asp/subRID=161>.

⁹⁵ Sports Business Research Network, "Market Research Results: Bicycles-Mountain", <http://www.sbrnet.com/research.asp?subRID=60>.

⁹⁶ Country Walkers, "Destination: Continental US", http://www.countrywalkers.com/Destinations_North_Amer.asp?destid=613979.

Organizations of participants in recreational trail sports such as the American Running Association and The League of American Bicyclists are also likely to benefit from increased participation induced by the availability of trails.

In the future the nation's emerging system of recreational trails may give rise to a wide variety of businesses that serve trail users. For example, specialty bicycle retailers may find location near trails advantageous because of the potential for bicycle sales, rental and repair business. Trails, especially the long-distance ones, may also give rise to new segments of the hospitality industry. The website for the Katy Trail stretching across almost the entire state of Missouri lists Bed and Breakfast Inns by town along the route.⁹⁷ Trailside parking lots and garages should also emerge in large numbers.

Things to Watch for

Nobody can be certain whether the pace of recreational trail development will continue as it has in the recent past. This paper has pointed out some indications that it could slow such as the possible re-direction of federal transportation funding priorities. Yet, it has gathered tremendous momentum from a variety of factors including the universal medical recognition that leisure time exercise is essential for good health and the availability of railroad rights of way. Sporting goods businesses, trail users and user groups, state and

⁹⁷ "Katy Trail Bed & Breakfasts", <http://www.bikekatytrail.com/katytrailbandb.asp>

local governments and many other entities have a stake in the future of this trend. They should be alert to at least the following indicators in order to evaluate its progress:

- Trends in use of leisure time
- Medical opinion about sports and fitness participation, particularly non-mainstream opinion that attracts media attention
- Public opinion about the importance of sports and fitness participation
- Trends in planning and completion of recreational trails
- Trends in federal financial support for recreational trails, especially amounts designated for trails in five-year surface transportation re-authorizations
- Trends in state, local and private financing for trails, particularly innovative charitable fund raising
- Reports of traffic congestion and accidents on trails
- Reports of trail maintenance needs not being met
- Reports of crimes against people on recreational trails

- Emergence of businesses serving trail users
- The impact of greater dependence on rail transportation on trails, particularly railroad denials of permission to co-locate trails with railroad lines and re-opening previously abandoned trails

If stakeholders in trail development watch and act on the basis of these indicators, they can build a desirable future for themselves and the nation.

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