

Bicycle-Friendly Communities

an Annotated Bibliography for Newton, Massachusetts

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The League of American Bicyclists' "Bicycle Friendly Community" program evaluates communities' commitment to using bicycles as a viable mode of transportation, based around five categories:

- engineering
- education
- encouragement
- enforcement
- evaluation.

Bike Newton applied for the designation early in 2010. Recently, the League of American Bicyclists rejected the application, citing Newton's many opportunities for growth as a bicycle-friendly community. Achieving this designation would be a huge benefit for Newton, because it speaks volumes about quality of life: a Bicycle-Friendly Community is a place where, increasingly, people want to visit, work, and live. The physical health benefits of decreasing driving and increasing bicycling and walking are becoming clearer through health research. Many studies are also confirming the mental health benefits of walkable, bikeable communities, and because of Walkability Scores, communities (such as Charlotte, NC) are also seeing real estate growth.

Unfortunately, a number of recent serious accidents have drawn attention to safety concerns about biking in Newton. Mayor Warren has responded by fast-tracking plans to assemble a Transportation Advisory Committee (TAC), whose input is expected to alter the way that Newton includes alternative transportation (such as bicycling and walking) in its overall transportation planning process.

This annotated bibliography is intended to serve as a resource for the TAC, for the City of Newton and for local community groups, showcasing national, regional, and state policies, guidelines, and instructional aides, and evidence-based research articles that can help establish policies, programs, and best-practices to encourage safe and convenient bicycling in Newton. In addition to the nascent TAC, relevant city departments include: Planning, Public Works, Health, Police, and Schools. Creating a bicycle-friendly community will require multiple departments to cooperate and to embrace new ways of thinking about how bicycling can be part of the city's transportation network. It is my hope that this annotated bibliography will provide resources to help Newton make these changes and become a Bicycle Friendly Community.

Where possible, I have provided web links for online or downloadable versions of resources. In one case (the study by Steinman & Hines from the *Transportation Research Record*) only a draft version presented at a conference is available. The articles by Wood, Lacherez., et al. (in the Education section) and Jacobsen, Racciopi & Rutter and Sener,

Eluru, and Bhat (Encouragement) are available full-text for free only through interlibrary loan.

BICYCLE FRIENDLY COMMUNITIES

League of American Bicyclists (2010). "Scorecard: Is Your Community BicycleFriendly?" <<http://www.bikeleague.org/programs/bicyclefriendlyamerica/communityscorecard/>> Accessed 7/20/10.

This brief scorecard, with 17 yes/no questions about bicycle facilities, provides a quick overview of the criteria for the program and a link to comprehensive information about the program's benefits, guidelines for application, award determination, FAQ's, and details about each of the "Five E's."

GENERAL/BACKGROUND

Active Living Resource Center (2010). "NCBW/ALRC Roadmap: Tools and Materials." <<http://www.activelivingresources.org/roadmap2.php>> Accessed 7/20/10.

The Active Living Resource Center is a health-services-based collaboration with the National Center for Bicycling and Walking funded by the Robert Wood Johnson Foundation. Their ultimate aim is to reduce childhood obesity by encouraging communities to restructure transportation to include more walking and bicycling. The "tools and materials" refers to a series of three sets of workbooks that provide local community groups with information about resources they can use for implementing changes.

MassRides (N.D.). "Safe Routes to School." <<http://www.commute.com/schools.shtml>> Accessed 7/24/10.

The MassRides Safe Routes to School program is an affiliate of the national Safe Routes to School program managed by the Massachusetts Department of Transportation, established in 2005 by a WalkBoston pilot project. This program, like the LAB's Bicycle Friendly Communities program, is organized around the 5 E's: Education, Encouragement, Enforcement, Evaluation, and Engineering. The Massachusetts program provides information on partner schools (all of Newton's elementary schools), getting started, resources, and funding. Newton schools have received funding in the past for an SRTS coordinator, but that funding was not renewed. Especially useful tools include: a "bikeability checklist" and student tally sheet available on the Evaluation page. [See entry for SRTS evaluation tools under Evaluation.]

Pedestrian and Bicycle Information Center (2010). "The National Bicycling and Walking Study: 15-Year Status Report." Washington, DC: U.S. Department of Transportation, Federal Highway Administration. Available at: <http://www.walkinginfo.org/15_year_report/>

This 21 page report is the third published update on the National Bicycling and Walking Study, begun in 1994. It assesses bicycling and walking as transportation modes in the

US. In addition to tracking progress on the two original goals of increasing mode share and reducing fatalities, this update also reports on Federal, state, and local initiatives to increase biking and walking.

Pucher, John (2008). "Cycling for Everyone: Lessons for Vancouver from the Netherlands, Denmark, and Germany." [60 minute video podcast of lecture] Vancouver: Simon Fraser University, Resources, Videos. <http://www.sfu.ca/city/city_pgm_video020.htm> Retrieved July 11, 2010.

John Pucher is a central researcher in planning for bicycles as transportation. In this presentation, he explains, using examples from Europe, how to plan and design communities to "make cycling possible for everyone." He provides a concise summary of evidence-based best-practices that have been demonstrated to increase bicycling safety and its transportation mode share.

FEDERAL, STATE, & LOCAL GUIDELINES AND PLANNING

Brookline Bicycle Advisory Committee (2008). "Green Routes Network Plan: A Bicycle Network Master Plan." <<http://www.brooklinebikes.org/MasterPlan.html>> Accessed 7/25/10.

Brookline's bicycle master plan brings together imaginative engineering vision (a wide variety of bicycle facilities are adapted to local street conditions and needs) and the city planning process. The plan's "vision for a bikable community" addresses the "level of stress and danger" that many roads provide and that most people prefer to avoid; network recommendations attempt to reduce such traffic stress. The network is divided into four areas: Muddy River Path, Slow traffic streets, New Greenways, and Main streets. Roadway treatments include: bike lanes, bicycle priority lanes, bike boxes, contraflow lanes, No Passing Bicycle Zones, Road Diets, and Roadside bicycle paths. There is a detailed timetable for individual projects, and a map showing different categories of facilities.

MassDOT (2010). "Healthy Transportation Compact." <<http://www.massdot.state.ma.us/main/HealthyTransportationCompact.aspx>> 7/22/10.

This web-page summarizes the Healthy Transportation Compact's main points. The overall goal of the compact is to "adopt best practices to increase efficiency to achieve positive health outcomes through the coordination of land use, transportation and public health policy." The compact is charged with coordinating with the Massachusetts Bicycle and Pedestrian Advisory Board. The site also provides relevant news updates, information about the "kickoff" meeting in January 2010, and contact information.

N.H.T.S.A. (2006). "Uniform Guidelines for State Highway Safety Programs, Highway Safety Program Guideline No. 14: Pedestrian and Bicycle Safety." Accessed from: <<http://www.nhtsa.gov/nhtsa/whatsup/tea21/tea21programs/pages/PedBikeSafety.htm>> 7/22/10.

These guidelines encourage states to develop safety programs for pedestrians and bicyclists that nicely parallel the Bicycle Friendly Communities 5 E's: States should employ "policy, enforcement, communication, education, incentive, and engineering strategies." Highlights include recommendations to include bicyclist and pedestrian safety components in driver education programs, and to provide traffic-calming and on-road facilities for bikes, such as lanes.

Planners Collaborative, Inc. (2008). "Massachusetts Bicycle Transportation Plan." Commonwealth of Massachusetts Executive Office of Transportation. <http://www.eot.state.ma.us/default.asp?pgid=../common/bikes/bike_tran_plan&sid=about> Accessed 7/18/10.

This 66 page plan is predicated on the increasing change from bicycling for recreation to bicycling for transportation. It provides a complete inventory of existing on- and off-road bicycle facilities, ongoing projects, and proposals; recommends a 740-mile Bay State Greenway network of on-road and off-road facilities; provides a strategy for launching the BSG; and recommends funding sources, such as federal Congestion Mitigation Air Quality funds. The document provides numerous figures, maps, tables, and links, especially regarding existing and planned trail and bike route projects.

Nedeljkovic, Srdjan (2004). "City of Newton Bicycle Accomodation and Integration Plan." (Draft). Available at <<http://www.bikenewton.org/>>.

This Bicycle plan was originally drafted to be included in the Transportation element of Newton's Comprehensive Plan, finished in January 2009. For a variety of reasons, in spite of being mentioned in the Comprehensive Plan, it was not included. This plan suggests a number of east-west and north-south routes, including Commonwealth Ave. and Walnut Street, which are targeted specifically for marked bike lanes, and provides guidance for the difficult task of apportioning road share on narrow roadways with parking. The author has emphasized (in person) that it is a draft plan, open to revision based on changes in traffic patterns and recent developments in road markings, such as the nascent bike lane on Beacon Street.

ENGINEERING

Bicyclinginfo.org (2006). "BIKESAFE: Bicycle Countermeasure Selection System." US Department of Transportation, Federal Highway Administration. <<http://www.bicyclinginfo.org/bikesafe/>> Accessed 7/20/10.

This interactive website provides comprehensive background information for town and city planners, engineers, and decision-makers regarding bicycle facilities. The goal is to

provide sufficient information (descriptions of 50 countermeasures, including case studies) to allow decisions about engineering changes to be tailored to local circumstances. Interactive matrices can be used to suggest countermeasures for particular accident types. e.g., clicking on "bicyclist failed to yield – signalized intersection" and "markings, signs, signals" produces a list including such treatments as "Bike-Activated Signal," and "Pavement Marking Improvements."

Hunter, William W., J. Richard Stewart, Jane C. Stutts, Herman H. Huang and Wayne E. Pein (1998). "A Comparative Analysis of Bicycle Lanes Versus Wide Curb Lanes: Final Report." UNC Highway Safety Research Center & Office of Safety and Traffic Operations Research and Development, Federal Highway Administration. Available at: <<http://www.fhwa.dot.gov/publications/research/safety/pedbike/99034/index.cfm>>

In this study comparing bike lanes and wide curb lanes, the researchers studied videotapes of 4,600 bicyclists in 3 cities (Santa Barbara, CA, Austin, TX, and Gainesville, FL) at 48 sites, that were coded for bike-vehicle conflicts. The researchers conclude that both wide curb lanes and bicycle lanes reduced potential conflicts, and that bicycle lanes should be used where possible, since, all things being equal, they are more apt to encourage bicycling. The report provides many useful diagrams, charts, and photographs of bike facilities.

Petrisch, Theodore A., P.E., PTOE (2010). "The Truth about Lane Widths." bicyclinginfo.org. <<http://www.bicyclinginfo.org/library/details.cfm?id=4348>> Accessed 7/24/10.

This short article reviews a number of engineering journal studies and federal and state guidelines, all of which support safely narrowing vehicle travel lanes to 10 feet. The author provides contact information, works cited, and a helpful pair of before/after photos that show changes in lane width after the addition of a bike lane.

Reynolds, C. C. O., M. A. Harris, K. Teschke, P.A. Cripton, M. Winters (2009). "The impact of transportation infrastructure on bicycling injuries and crashes: a review of the literature." *Environmental Health* (8) 47. <<http://www.ehjournal.net/content/8/1/47>> Accessed 7/15/10.

The authors of this open-access article reviewed 23 papers studying injuries, injury severity, and crashes at intersections and between intersections. The presence of bike lanes, bike routes, and off-road bike paths along straightaways was associated with the lowest risk, reducing injury rates by about 50%. Multilane roundabouts without separated bike tracks were associated with the highest risk; the authors recommend using clearly marked, separated bicycle facilities when installing multilane roundabouts in areas with high bicycling rates. The authors say that literature on this subject is "remarkably sparse."

Steinman, N. and D.K. Hines (2004) "Methodology to Assess Design Features for Pedestrian and Bicyclist Crossings at Signalized Intersections." *Transportation Research Record* (1878) 42-50.

(2003) Presentation to Urban Street Symposium available at:
<http://www.urbanstreet.info/2nd_sym_proceedings/volume%202/hines.pdf>

The Charlotte, NC Dept. of Transportation developed a "level of service" methodology for assessing the impact of design features on pedestrians and bicyclists at signalized intersection, including: crossing distance, roadway space allocation, corner radius dimension, and traffic signal characteristics. Results can be compared with traffic levels of service. The study separates bicycle and pedestrian LOS. A number of factors (noise, visual stimuli, convenience, and security) were not considered; the authors chose to use factors that were found to influence pedestrian and bicyclist decisions more strongly. The article also provides two on-site applications of the method as illustrations of its use.

US Department of Transportation, Federal Highway Administration (2009). "Part 9 – Traffic Control for Bicycle Facilities" in *Manual on Uniform Traffic Control Devices*. <http://mutcd.fhwa.dot.gov/pdfs/2009/pdf_index.htm> Accessed 7/22/10.

These guidelines provide specifications, shapes, colors, and sizes for a huge variety of signage and pavement markings specific to bicycle facilities, such as on-road lanes, bike routes, shared-use facilities, and separated bike paths. Except in cases in which federal aid is used for construction or reconstruction, the designs provide only a "uniform standard," not a set of mandates. The 2009 update is notable for a wider variety of bicycle facilities, including the new "sharrow" markings to indicate shared lanes.

Van Houten, R. and C. Seiderman (2005). "How Pavement Markings Influence Bicycle and Motor Vehicle Position – Case Study in Cambridge, Massachusetts." *Transportation Research Record* (1939): 3-14. Available at:
<http://www.cambridgema.gov/~CDD/et/bike/bike_hamp_study.pdf>

The researchers studied changes in vehicle and bike positioning by videotaping bicyclists and vehicles, as segments of bike lane were installed along Massachusetts Ave. in Cambridge, MA. They found that bike lanes significantly increased cyclists' distance from parked cars and from the curb. They also performed before and after surveys. Cyclist rated the lanes favorably. Before the lanes were installed, drivers submitted that "nothing" would improve their awareness of cyclists on the street. After the lanes were installed, the most common driver response was "the bicycle lane." The authors also review several studies which show that drivers and cyclists both swerve less and respect other vehicle laws (such as stop signs) in the presence of bike lanes.

EDUCATION

bicyclinginfo.org (N.D) "Educate Drivers and Bicyclists."
<<http://www.bicyclinginfo.org/education/>>. Accessed 7/24/10.

Bicyclinginfo.org is a site funded by the US DOT, FHWA, and maintained by the Pedestrian and Bicycle Information Center at the University of North Carolina Highway Safety Research Center. It is a "national clearinghouse for information about health and safety, engineering, advocacy, education, enforcement, access, and mobility for pedestrians (including transit users) and bicyclists." This page provides both direct advice and instruction, and links to educational programs (such as at the League of American Bicyclists) and government-published pamphlets and web-pages.

Forester, Jon (1993). *Effective Cycling*, 6th ed. Cambridge, MA., MIT Press.

(Available through Minuteman Library Network at Natick. Earlier edition (1984) available at Belmont, and Video at Arlington. It is still in print, and available from all major booksellers.)

Jon Forester is referred to as the "father of *vehicular cycling*," a method of safe cycling in which the bicyclist follows the rules and practices of automobiles, aiming for high visibility and predictable movements. Much of this method has been adopted by the League of American Bicyclists and their League Cycling Instructor certification and BikeEd programs, though Forester withdrew his permission for the LAB to use the name. This book lays out the basic constituents of vehicular cycling clearly and artfully. Many bicyclists credit his method with saving hundreds of lives; others fault Forester for impeding progress in bicycling infrastructure, and providing advice that only experienced, fit cyclists are comfortable following.

League of American Bicyclists (2010) "Bike Education."
<<http://www.bikeleague.org/programs/education/>>. Accessed 7/23/10.

The League of American Bicyclists (formerly known as the League of American Wheelmen) has been the premier national bicycling organization for 130 years. Its recent incarnation (re-formed in 1965 and renamed in 1994) has had a dual focus on advocacy for bicycling-friendly laws and funding, and education, both of which are intended to increase safety. This rich page offers links to courses, instructors by state, materials and processes for becoming a certified instructor, tips for riders, and a list of downloadable presentations from a 2009 "Smart Cycling" conference.

Thomas, L., J. Stutts, Z. Gillenwater (2007). "Sharing the Road with Bicyclists." *Model Driver Handbook*. National Cooperative Highway Research Program, AASHTO Standing Committee on Highways, 20-07/Task 212.
<<http://144.171.11.40/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=1227>>
Accessed 7/24/10.

The "Model Driver Handbook" was developed as a template to encourage states to include certain less-covered subject areas in their driver education handbooks. Recommendations in the 7-page "Sharing the Road with Bicycles" were developed from a combination of state handbooks, research articles and reports, and instructional aids

from the League of American Bicyclists and the Bicycle and Pedestrian Information Center. It is available both as PDF and Microsoft Word files, and is supplemented by diagrams in graphics files. These supplements could be quite useful in driver education classes. The author cautions, however, that states should compare recommendations to state laws.

Wood, J.M., P.F. Lacherez, R.P. Marszalek, M. J. King (2009). "Drivers' and cyclists' experiences of sharing the road: Incidents, attitudes, and perceptions of visibility." *Accident Analysis and Prevention* 41 (4): 772-776.

This study, which involved internet surveys of 622 automobile drivers and 838 cyclists, demonstrates that visibility plays a critical role in many automobile-bicycle accidents. In general, cyclists estimated their visibility as considerably higher than automobile drivers did: bicyclists thought they would be visible at a distance twice the distance estimated by drivers. Bicyclists tend to overestimate the visibility of fluorescent clothing at night. Drivers rated reflective vests as more visible than bikers did, and bikers rated reflective wrist/ankle strips and flashing lights on wrists and ankles as more visible than drivers did. Finally, bicyclists reported alarmingly low frequencies of using visibility aids other than front and rear lights.

ENCOURAGEMENT

Jacobsen, PL (2003). "Safety in numbers: more walkers and bicyclists, safer walking and bicycling." *Injury Prevention* (9): 205-209.
 <<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1731007/?tool=pubmed>> Accessed 7/25/10.

Virtually all references to "safety in numbers" regarding bicycling and walking derive from this influential article. The researcher studied 5 datasets involving walking, bicycling, and injuries incurred by motor vehicles (in California, the UK, Netherlands, Denmark, and Europe), and found that, contrary to expectations, the likelihood of being struck by a motor vehicle *decreases* as the number of bicyclists or pedestrians increases. While bicycling in a population whose bicycling rates double, an individual's risk will decline to 66%. The author concludes that "policies that increase the numbers of people walking and bicycling appear to to be an effective route to improving the safety of people walking and bicycling."

Jacobsen, P.L., F. Racioppi, H. Rutter (2009). "Who owns the roads? How motorised traffic discourages walking and bicycling." *Injury Prevention* (15): 369-373.

The authors reviewed a number of studies regarding attitudes to traffic among bicyclists and pedestrians. Findings are not surprising: "Traffic, because it is dangerous and unpleasant, discourages walking and bicycling." The study also points out the major problem with recent declines in pedestrian and cyclist fatalities: the declines more likely correlate to reductions in risk exposure (fewer bicyclists and pedestrians) and

improvements medical care than to safer road environments. The authors also point out a key irony: "in most urban areas around the world it is difficult to find locales where traffic danger is not a continuing reality of everyday life—traffic and traffic danger are almost ubiquitous--yet have [sic] rarely been studied as a causal component of people's physical inactivity."

Pucher, J., J. Dill, et al. (2010). "Infrastructure, programs, and policies to increase bicycling: An international review." *Preventive Medicine* 50: S106-S125. Available at: <<http://policy.rutgers.edu/faculty/pucher/>>.

The authors reviewed 139 published journal articles reporting on marketing, infrastructure, legal, education, and public transport relationships with biking mode share. 14 case studies provided further data. Most studies provide solid support for the role of public policy and infrastructure development in increasing bicycling mode share. At the article's center are three comprehensive, well-organized tables: One that describes and compares 22 bike measures (such as cycle tracks, bike lanes, bike parking, etc.) and their measured effects on amounts of bicycling, a second that compares 12 bicycling programs and laws (such as Safe Routes to School, helmet laws, etc.), and a third that compares 14 cities around the world. The researchers conclude that a "comprehensive approach produces a much greater impact on bicycling than individual measures that are not coordinated."

Sener, I.N., N. Eluru, C. R. Bhat (2009). "An Analysis of Bicycle Route Choice Preferences in Texas, US." *Transportation* (36): 511-539.

The authors set out "to identify the bicycle facility design attributes that individuals consider important for bicycling." The authors provide extensive background research in bicyclist preferences, much of it in table form, which is helpful for comparisons. They studied, through surveys, bicyclist characteristics, on-street parking, bicycle facility characteristics, and roadway physical, functional, and operational characteristics, and employed an "econometric modeling framework" to study the correlation of these characteristics to route decisions. The study found that bikers prefer routes without parked cars or hills, with continuous bicycle facilities, lower traffic volume and speeds, as well as fewer stop signs, signals, and cross-streets. Commuting bicyclists were also sensitive to overall travel time.

ENFORCEMENT

Executive Office of Public Safety and Security (2010) "Highway Safety Division." Commonwealth of Massachusetts. <<http://www.mass.gov/?pageID=eopsagencylanding&L=3&L0=Home&L1=Public+Safety+Agencies&L2=Highway+Safety+Division&sid=Ecops>> Accessed 7/20/10.

The Highway Safety Division website provides a number of links to program pages (such as "Pedestrians" and "Bicycles and Motorcycles") and information about grants. Some recent grant programs have included "2010 Statewide Bicycle, Rollerblade, Skateboard,

and Scooter Helmet Distribution Program" and "2009-2010 Pedestrian, Bicycle and Moped-Type Safety Enforcement & Equipment Grant." It is worth watching the page for announcements of future grants. Information on the "bicycles and motorcycles" page is minimal.

Massachusetts Bicycle Coalition. (2010) "Bike Law Update."

<<http://www.massbike.org/resourcesnew/bike-law/bike-law-update/>> Accessed 7/22/10.

Massbike has provided a summary of the "Bicyclist Safety Bill" (Senate Bill 2573), signed into law in January 2009, which changed a number of laws relevant to bicyclists, such as: Don't Door Bicyclists, Don't Cut off Bicyclists After Passing, Safe Signaling Law, etc. Though one can read the bill itself (<http://www.mass.gov/legis/bills/senate/185/st02/st02573.htm>), because it changes the wording of numerous laws regarding roadways, it is very difficult to understand its implications without this clear explanation.

National Highway Traffic Safety Administration (2002)."Resource Guide on Laws Related to Pedestrian and Bicycle Safety." Downloadable Windows Application.

<<http://www.nhtsa.gov/people/injury/pedbimot/bike/resourceguide/dldirections.html>> Accessed 7/20/10.

This guide is intended to provide guidance on the effects of local laws on bike and pedestrian safety, positive or negative. The user must have a windows-based computer platform (not Mac). The application is available through either download or cd-rom; contact information is available at the website. [I have not had access to a windows-based computer in order to test the application.]

EVALUATION

National Center for Bicycling and Walking (2010). "NCBW Publications."

<http://www.bikewalk.org/ncbw_pubs.php> Accessed 7/20/10.

The National Center for Bicycling and Walking has developed a number of documents (downloadable, free) to help organizations create plans for improving conditions for biking and walking, and then to assess actual state and regional (MPO) bike accommodations. Titles include: "Creating a Road Map for Producing and Implementing a Bicycle Plan," "Does it Work? State Department of Transportation Project Assessment," and "Taking Steps: An Assessment of Metropolitan Planning Organization Support for Bicycling and Walking."

MassRides (N.D.). "Download Materials for your School."

<http://www.commute.com/schools_resources.shtml> Accessed 7/26/10.

In addition to the Safe Routes Manual, this web-page offers several useful downloadable tools for evaluating local neighborhoods for walkability and bikeability: student and

parent surveys, and the walkability and bikeability checklist. Checklists are adapted to the perspectives and vocabularies of K-5 schoolchildren.

CONCLUSION

A consensus is beginning to form among federal and state highway administrations, engineering and medical researchers, and bicycling advocacy groups that physically adapting roadways (*engineering*) to a broad cross-section of bicyclists and other non-motorized users is a major component of bicyclist safety and community health. Happily, many of these changes (such as those contributing to Complete Streets and Safe Routes to Schools), also contribute to quality-of-life and health improvements for residents. In order to further bolster safety gains for bicycling, communities need to make changes in driver and bicyclist behaviors and attitudes (*enforcement* and *education*), increase the number of bicyclists (*encouragement*) and finally, check that local approaches have actually contributed to improvements in safety (*evaluation*).

Because there is such a strong, recent confluence of research, policy, advocacy and increases in bicycling road-share, it is likely that resources and approaches will be changing and expanding rapidly in the near future. This bibliography will, I hope, be woefully out of date in only a few years. Its users are therefore advised to continue research.

For further reading, the richest collection of bicycling-relevant resources online is available at the Pedestrian and Bicycle Information Center's searchable online library: <http://www.bicyclinginfo.org/library/>, which includes hundreds of "sample pedestrian and bicycle plans and planning tools, design guidelines, research and safety studies, pedestrian and bicyclist articles and white papers, case studies, and links to presentations, videos, and other web resources." The transportation engineering journals *Transportation* and *Transportation Research Record* both regularly carry research articles relevant to bicycling, as do the medical journals *Accident Analysis and Prevention*, *Environmental Health*, and *Injury Prevention*. For information on Complete Streets, visit Cambridge, MA-based Livable Streets (<http://www.livablestreets.info/>), an organization that provides seminars and public talks as well as online resources.

More locally, MassBike (<http://www.massbike.org/>), Bike Newton (<http://bikenewton.org/>), the Newton Bicycle/Pedestrian Task Force (<http://sites.google.com/site/newtonbptf/>), and the blog Newton Streets and Sidewalks (<http://newtonstreets.blogspot.com/>), provide updates about local and state-level initiatives and biking-related news.