

# North Little Rock Bicycle Friendly Community Evaluation Plan

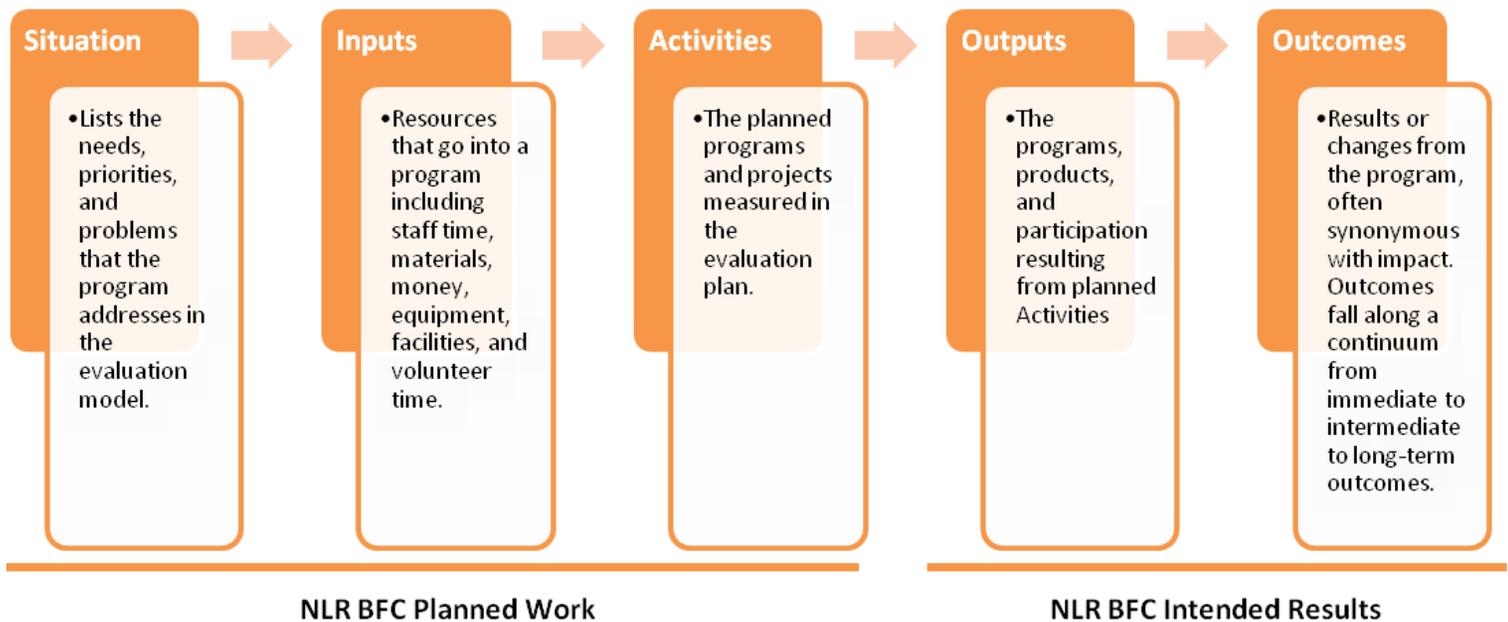


## Table of Contents

How to Read a Logic Model	1
Situation	2
Safe Routes to School	4
Inputs	5
Activities	6
Outputs	8
Bike Rack Program	11
Outcomes—Knowledge, Attitudes, Beliefs	12
Outcomes—Actions	13
Outcomes—Conditions	15
Bicycle Account Recommended Data and Sources	16
NLR BFC Evaluation Model Graph	17



## How to Read a Logic Model



**Remember: Outcomes should be SMART:**

Specific

Measurable

Action-oriented

Realistic

Timed

## Situation (Priorities to be addressed)

- North Little Rock has achieved Bronze Bicycle Friendly Community status 2013-2017 (League Of American Bicyclists Bicycle Friendly America 2013) <https://www.bikeleague.org/bfa>
- Shared Lane Markings improve interactions between bicyclists and motorists (Evaluation of Shared Lane Markings by the Federal Highway Administration, 2010) <http://www.fhwa.dot.gov/publications/research/safety/pedbike/10041/10041.pdf>
- The most traveled to destination for families on bikes was to parks and playgrounds (National Family Biking Survey by Megan Odett, Kidical Mass DC, 2013) [http://blog.bikeleague.org/blog/wp-content/uploads/2013/04/Family\\_Biking\\_Survey\\_2.pdf](http://blog.bikeleague.org/blog/wp-content/uploads/2013/04/Family_Biking_Survey_2.pdf)
- The City of North Little Rock was the first and only city in Arkansas to fund an awareness campaign for the statewide 3 feet passing law for bicyclists
- Among children ages 14 and under, more than 80 percent of bicycle related fatalities are associated with the bicyclist's behavior, including riding into a street without stopping, turning left or swerving into traffic that is coming from behind, running a stop sign, and riding against the flow of traffic. (Safe Kids USA) <http://www.helmets.org/stats.htm>
- Arkansas is one of the top 10 states with the highest obesity rates
  - [http://www.cdc.gov/healthyyouth/yrbs/pdf/obesity/ar\\_obesity\\_combo.pdf](http://www.cdc.gov/healthyyouth/yrbs/pdf/obesity/ar_obesity_combo.pdf)
  - <http://www.cdc.gov/obesity/stateprograms/fundedstates/arkansas.html>
- In 2009, women accounted for only 24% of bike trips, yet 83% of women have a positive view of cycling (Women on a Roll – League of American Bicyclists 2013) [http://www.bikeleague.org/sites/lab.huang.radicaldesigns.org/files/WomenBikeReport\\_Final\(web\).pdf](http://www.bikeleague.org/sites/lab.huang.radicaldesigns.org/files/WomenBikeReport_Final(web).pdf)



## NLR is a Bicycle Friendly Community

North Little Rock was the first community in Arkansas to be recognized by the League of American Bicyclists as a Bicycle Friendly Community in 2009. In 2013, NLR once again received Bronze level Bicycle Friendly Community status through the Bicycle Friendly America program.

Through feedback from local reviewers and League staff, the NLR Bicycle Friendly Community Committee and the City of North Little Rock will continue to work to achieve its goals to be recognized as a Bicycle Friendly Community. One way of achieving the goals is through planning and evaluation. The NLR BFCC met in the Fall of 2013 to prepare an evaluation plan to help meet the five Es of bicycle friendliness: Engineering, Education, Encouragement, Enforcement, and Evaluation. With this evaluation plan in place, consistent and continuous assessments of the bicycle program will be completed.





## Situation *(continued)*

- Cyclists are unaware of/disobey traffic laws (Biking Behavior in Mid-Manhattan by Peter Tuckel and William Milczarski, 2009) [http://graphics8.nytimes.com/packages/pdf/nyregion/city\\_room/spring\\_2009\\_bikestudy\\_2.pdf](http://graphics8.nytimes.com/packages/pdf/nyregion/city_room/spring_2009_bikestudy_2.pdf)
- Describing the four general categories of transportation cyclists in Portland and their differing needs best precedes a discussion of bikeway treatments. This typology is for using the bicycle for transportation only. People in all these groups—especially the interested but concerned group—may bicycle for recreation. This categorization addresses only their willingness to use a bicycle as a main means of transportation.

<http://www.portlandoregon.gov/transportation/article/158497>

(Four Types of Cyclists by Roger Geller, 2012)

For lack of better terminology, Portlanders can be placed into one of the four following groups based on their relationship to bicycle transportation:

- Strong and the Fearless (less than 0.5%)
- Enthused and the Confident (7%)
- Interested but Concerned (60%)
- No Way No How (33%)



## NLR is First in Arkansas to Educate in Safe Passing Law for Cyclists

NLR is the only city or organization in Arkansas to have an educational and media campaign on the 3-foot bicycle passing law. Billboards were purchased throughout NLR on key cycling routes and matching yard signs and bumper stickers were developed for a larger audience. The yard signs were visibly placed in yards and city service lawns along key cycling routes. Bumper stickers were distributed to police and city offices for city vehicles and to increase our city employees' awareness of the 3-foot passing law.

Many drivers and cyclists were unaware of this law or did not understand it. Adequate passing distance is essential to cyclists' safety, as is the recognition by drivers that cyclists have a right to bike on the roadways. The campaign was communicated to the public through social media, a press conference with the Mayor, the Fit 2 Live website, radio spots, and the local evening news.



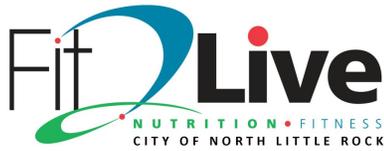
## Safe Routes to School

### NLR funded program from 2012-2014

There has been a community-wide shift in our attitude in bicycle education, especially towards SRTS. NLR School District and City planners have met with the Bicycle Friendly Community Committee to evaluate the traffic flow and parking design for the new schools in the NLRSD to allow safe access for cyclists to enter the school and for covered bike parking at each main entrance. Within weeks of certification, the new League Cycling Instructors started teaching Bicycling Skills classes at NLR schools in preparation for Bike to School Day events. At these events, each LCI fit youth for new helmets, repaired bikes, and helped youth and parents improve bicycling skills. Three of the new LCIs are NLR elementary PE teachers and have taken the lead in integrating the SRTS curriculum in their classroom and recruiting teachers into future SRTS and Smart Cycling courses. With this success, NLR has decided to increase their goal to reach at least 75% of all 3<sup>rd</sup> grade youth in the NLR school district. This includes continuation of the "Learning to Ride a Bike" clinics with balance bikes which have been successful additions to school festivals and community events.



Every child gets personally fitted for a bicycle helmet in North Little Rock's Fit 2 School Walking and Wheeling programs.



## NLR League Cycling Instructors

In 2012, NLR received an education grant and hired a part-time SRTS Coordinator to integrate the SRTS curriculum into 2 schools in the NLR School District and recruit 9 LCIs for a local LCI seminar. By recruiting 3 elementary school coaches to become LCIs, the SRTS curriculum was integrated into 4 schools, doubling our initial goals. We were also excited to have 3 teachers become LCIs who have continued to teach SRTS curriculum both in class and in summer camps.

The LCI seminar was also a success in which we recruited 12 new LCIs in our area and assisted 2 more in a neighboring community of Jonesboro. With this number of new LCIs, we essentially doubled the number of LCIs in the state just in our community alone. Within weeks of certification, the new LCIs started teaching Bicycling Skills classes at the local schools in preparation for Bike to School Day events. At these events, each LCI fit youth for new helmets, repaired bikes, and helped youth and parents improve bicycling skills. Not long after, many of these LCIs also led commuter convoys for Bike to Work Day during National Bike Month and the LCIs continue to lead educational efforts using their skills and resources.



## Inputs (What we Invest)

- NLR Staff Time Spent on Bicycle and Pedestrian Projects
  - Fit 2 Live Coordinator
  - Complete Communities Coordinator
  - Parks and Recreation
  - Community Planning
  - Traffic, Engineering, Streets
- NLR Fire Department Bike Team
- NLR Police Department Bike Patrol
- NLR Bicycle Friendly Community Committee
- Relationships with national, regional, state, and local health and cycling experts, networks, and advocates
  - League of American Bicyclists
  - Metroplan
  - Arkansas Coalition For Obesity Prevention
  - Bicycle Advocacy of Central Arkansas (BACA)
  - Other bicycle advocacy, riding, and interest groups
- Organizational resources from:
  - City of NLR
  - NLR Bicycle Friendly Community Committee
  - Parks and Recreation Department
  - Community Planning
  - Traffic, Engineering, Streets
- NLR School District Teachers and Staff
- NLR League Cycling Instructors
- Safe Routes to School Education and Infrastructure grants
  - Other Grants and Gifts
- Infrastructure
  - Urban Trails and Bridges
  - Mountain Bike Trails
  - Complete Streets (bike lanes, boulevards, shared lane markings, signage)

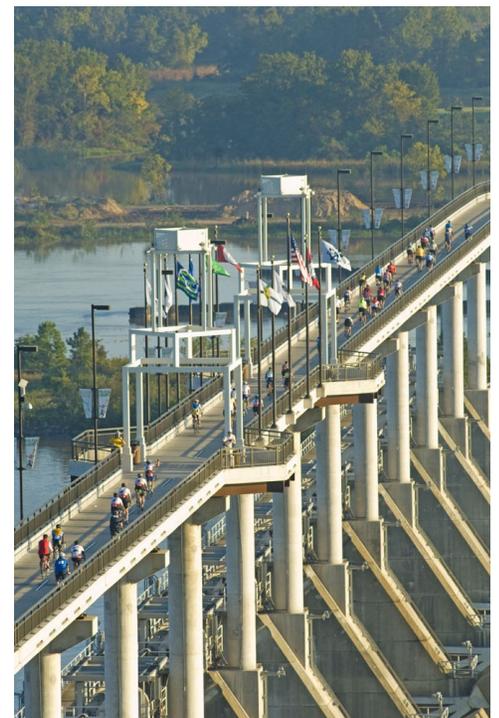
## Activities (What we Do)

- Encourage cycling as a healthy and safe transportation / recreation option and promote safe cycling behaviors through League of American Bicyclists' Smart Cycling curriculum taught by trained NLR League Cycling Instructors <http://www.bikeleague.org/ridesmart>
- Design and implement facilities according to the:
  - North Little Rock Bicycle Master Plan [http://nlr.ar.gov/departments/community-planning/pdfs/NLR\\_Bicycle\\_Plan\\_2013\\_FullDocument.pdf](http://nlr.ar.gov/departments/community-planning/pdfs/NLR_Bicycle_Plan_2013_FullDocument.pdf)
  - Complete Streets Policy (in the North Little Rock Master Streets Plan) [http://nlr.ar.gov/government/council\\_agenda/Resolutions/R-09-43 - Expressing the desire of the City of NLR to adopt a Complete Streets policy.pdf](http://nlr.ar.gov/government/council_agenda/Resolutions/R-09-43-Expressing_the_desire_of_the_City_of_NLR_to_adopt_a_Complete_Streets_policy.pdf)
  - NACTO Urban Bikeway Design Guide <http://nacto.org/cities-for-cycling/design-guide/>
  - NACTO Urban Street Design Guide <http://nacto.org/usdg/>
  - AASHTO Guide for the Development of Bicycle Facilities
- Update NLR's Bicycle Account every 4 years to include and report on the four following basic features:
  - Bicycle traffic data
  - Cycling quality
  - Infrastructure development
  - Theme studies (Tourism, Youth and Children, Microeconomic effects)
  - LAB Bicycle Account [http://www.bikeleague.org/sites/lab.huang.radicaldesigns.org/files/Bicycle\\_Account\\_Guidelines.pdf](http://www.bikeleague.org/sites/lab.huang.radicaldesigns.org/files/Bicycle_Account_Guidelines.pdf)
- Evaluate North Little Rock's Bicycle Friendly status every 4 years through the League of American Bicyclists' Bicycle Friendly Community program <https://www.bikeleague.org/bfa>
  - Engineering
  - Enforcement
  - Education
  - Encouragement
  - Evaluation
  - Equality <http://iamtraffic.org/advocacy-focus-areas/equality/>



### Big Dam Bridge Recognized

Big Dam Bridge is the longest bicycle and pedestrian only bridge in North America and has been awarded 13 titles and prizes for its engineering, lighting, and appeal. The Society for American Travel Writers voted it the “6th Best Bridge Travel Site”, and the “Engineering Excellence Award” was given by the American Council of Engineering Companies of Arkansas. The Big Dam Bridge was built not only as a physical connection between two cities, but also a connection for the communities. Acting like an extension to the parks, it encourages a healthier lifestyle by promoting physical fitness through more walking and cycling. Overall, it was also built to help the local economy, by bridging the gap between Arkansas and the rest of the world; attracting visitors from all over to be welcomed by the hospitality of our community.



**82%**  
of American women  
have a positive view  
of bicyclists

Women on a Roll:  
[bikeleague.org/womenbike](http://bikeleague.org/womenbike)



Photo of Karyn Williams by Liz Clayman

## Activities *(continued)*

- Support North Little Rock businesses in becoming bicycle friendly  
<https://www.bikeleague.org/bfa>
- Target the 60% of people who are interested in cycling but concerned about safety, paying special attention to youth, women, and families  
<http://www.portlandoregon.gov/transportation/article/158497>
- Expand the NLR bicycle system to provide safer riding conditions for bicycle commuters.  
[http://nlr.ar.gov/departments/community-planning/pdfs/NLR%20Bicycle%20Plan\\_2013\\_FullDocument.pdf](http://nlr.ar.gov/departments/community-planning/pdfs/NLR%20Bicycle%20Plan_2013_FullDocument.pdf)



## Encouraging the “Interested but Concerned” to Ride a Bike in NLR

In an effort to engage a more diverse group of cyclists, the League of American Bicyclists produced the report “Women on a Roll” which compiled more than 100 original and trusted sources of data to showcase the growth and potential of female bicyclists in the United States. The report suggested five key focus areas -- the 5 Cs -- to increase women’s ridership: Comfort, Convenience, Consumer Products, Confidence, and Community.

In North Little Rock, we have offered a variety of programs targeted specifically to women. The most popular have been the Women’s Bike Repair Workshops covering flat tube/tire repair and general bike maintenance. With the success of these classes we obtained a grant for high security bike pumps at the City’s bike repair stations and will continue to offer short, hands-on bike repair classes to help build cyclists’ Confidence when faced with a bike repair issue and also give them a chance to build a Community with other cyclists while giving them a chance to try out new Consumer products.





## Youth Helmet Programs

Properly wearing a helmet when cycling is your best means of protection against injury. According to recent research, helmets provide a 63-88% reduction in the risk of head, brain, and severe brain injury for all ages of bicyclists. Therefore, one of the key investments of the SRTS program is in helmets and one of the first lessons in SRTS is proper helmet fit. Almost every grant written includes funds for helmets which are given away to NLR youth at educational events.

Helmets are only given to youth when the child can be properly fitted with the helmet and the parents are usually there to see how to adjust the helmet and fit or choose helmets for future purchases. Most kids are so happy with a properly fitted helmet that we can still see them wearing their helmet long after they have stopped riding their bike.



## Outputs (Results of Activities)

- *Activity #1* – NLR increases its efforts to encourage bicycling as a healthy and safe transportation and recreation alternative, and safe cycling behaviors are increased through League of American Bicyclists' Smart Cycling curriculum taught by trained NLR League Cycling Instructors in school and at events, workshops, and campaigns.
- *Outputs for Activity #1*
  - Safe Routes to School / Fit 2 School
  - Bike to School Days
  - Recycle Bikes for Kids
  - National Bike Month
  - Traffic Skills 101, Smart Cycling curriculum
  - Motorist Education
  - NLR Police Department Enforcement Campaign
  - Bicycle Repair Workshops
  - 3 Feet Safe Passing Campaign
  - Arkansas River Trail Safety Campaign
  - North Little Rock Fire Department Team
  - North Little Rock Police Patrol
  - NLR Fit 2 Live Bicycle Website to list all bicycle opportunities
- *Activity #2*- Facilities are designed and implemented according to the North Little Rock Bicycle Master Plan, Complete Streets Policy (in the North Little Rock Master Streets Plan), NACTO Urban Bikeway Design Guide, NACTO Urban Street Design Guide, and AASHTO Guide for the Development of Bicycle Facilities.
- *Outputs for Activity #2*
  - Updated North Little Rock Bike Master Plan and Complete Communities Plan
  - Mountain Bike Master Plan
  - Arkansas River Trail Task Force
  - Volunteers of the Levy Trail (VOLT)
  - Park Hill Trail
  - Emerald Park Trail
  - Bike Racks
  - Repair Stations
  - Shared Lane Markings
  - Bike Routes and Lanes
  - Bike Signage



## Supporting North Little Rock Bicycle Event Rides

Events rides such as the Big Dam Bridge 100, which can bring in over 2,500 cyclists from over 25 states, can help improve the local economy, encourage new cyclists to start riding, encourage established cyclists to set goals, help to promote cycling as a valid option for recreation and transportation, and raise money for local and national charities.

North Little Rock has always supported a majority of large cycling events and will continue to support a diversity of cycling events. Past cycling events have included: CARTI Tour de Rock, Aptalis Cystic Fibrosis Cycle for Life, Big Dam Bridge 100, Arkansas MS 150: Rock N' Hot Ride, Cycle for Sight, Big Brothers Big Sisters Biking for Bigs, Crosswinds Classic (Road), Riverside Subaru Riverside Classic (Part of the Arkansas Mountain Bike Championship series), Riverside Duathlon, American Heart Association Cardiac Classic Bike Ride, Ronde van Burns Criterium series, Star Spangled Criterium, Arkansas State Criterium Championships, American Diabetes Association Central Arkansas Tour de Cure.



## Outputs *(continued)*

- Bicycle Friendly Schools (inclusion of bicycle racks and pathways on NLRSD property)
- Burns Park
- Camp Robinson
- Themed Loops
- River Trail Station
- *Activity #3-* The Bicycle Account is updated every 4 years to include and report on the four following basic features:
  - *Outputs for Activity #3*
    - Bicycle Account Section 1 - Bicycle traffic data
    - Bicycle Account Section 2 - Cycling quality
    - Bicycle Account Section 3 - Infrastructure development
    - Bicycle Account Section 4 - Theme studies (Tourism, Youth and Children, Microeconomic effects)
    - *See Bicycle Account Recommended Data and Sources page for data sources*
  - *Activity #4-* North Little Rock's Bicycle Friendly status is evaluated every 4 years through the League of American Bicyclists' Bicycle Friendly Community program
  - *Outputs for Activity #4*
    - Designation as a League of American Bicyclists' Bicycle Friendly Community
  - *Activity #5-* North Little Rock businesses become bicycle friendly through increased:
    - *Outputs for Activity #5*
      - Number of bike racks, corrals, and bike amenities provided/installed
      - Number of League of American Bicyclists' Bicycle Friendly Business awards
  - *Activity #6-* There is an increase of youth, women, and families participating in cycling.
  - *Outputs for Activity #6*
    - Increased Social Marketing for Encouragement, Education, Enforcement, Evaluation, and Engineering
    - Increased use of the NLR Trail System (Arkansas River Trail, Levy Trail, Park Hill Loop, Emerald Park Trail, Overbrook Trail) by all user groups



## Bicycling Means Business

Regions that have invested in bicycling have seen tangible economic impacts. Recent studies are showing significant economic impacts from improvements to bicycling infrastructure. The nation's 60 million annual recreational bicyclists spend \$46.9 billion on meals, transportation, lodging, gifts, and entertainment. Everyday commuters also have a lasting impact on their neighborhoods.

In 2007, New York City added bike lanes to Manhattan, 8th, and 9th Avenues. Many businesses along those streets were worried about decreased revenues, however, sales tax reporting tells a different story. Sales income at locally-based businesses along 9th Avenue went up as much as 50 percent. This was during a recession— in the same period, borough-wide retail sales only increased 3 percent. Additionally a 2012 NYC study found a 35% – 58% decrease in injuries on streets with the bike lanes. Bike lanes and bicycle parking for 160 bikes were added to Magnolia Street in Fort Worth. The total for buying and installing all the bicycle parking was less than the cost of a single space in the garage. After the road was restriped, restaurant revenues along Magnolia street went up a combined total of 179 percent.



## Outputs *(continued)*

- Number of and participation in Bike to School Days
- Number of and participation in Kidical Mass events
- Funding for and percentage of NLR schools participating in Safe Routes to School Program
- Number and diversity of Cycling Clubs in NLR
- Number and diversity of Cycling Events in NLR
- Bicycle Business – consumer products and services sold/ marketed to youth and women
- Activity #7– The NLR bicycle system is expanded to provide safer riding conditions for bicycle commuters.
- *Outputs for Activity # 7*
  - Increased mileage of bike lanes
  - Increased numbers of shared lane markings (sharrows)
  - Increased wayfinding signage and “May Use Full Lane” signs
  - Increased protected or separated bike paths or multi use paths for cyclists and pedestrians
  - Increased bike parking
  - Implement infrastructure improvements concurrently with NLR overlay programs
- ***Bicycle Facility Evaluation***
  - Volume analysis – survey counts/counters
  - Survey analysis – User intercept surveys, surrounding neighborhood surveys
  - Bicycle Environmental Quality Index - Motor vehicle counts, Lane geometry and cross section, Speed data, Land use information
  - Crash analysis – Crash data

## Bike Rack Program

### NLR funded program from 2012-2014

Businesses are beginning to see the spatial logic of the bicycle. After all, 12 bikes fit in one car parking space. Providing bike parking is an extraordinary bargain compared to building structured parking: one parking space in a garage costs at least \$15,000 to build and hundreds of dollars per year to maintain, while building a rack for two bikes costs \$150 to \$300. North Little Rock developed a Bike Rack Joint Use Agreement for local businesses interested in receiving a free bike rack installed by the City. NLR Fit 2 Live received grant funds to purchase almost 100 bike racks and has been in the process of identifying spots around the community that are in need of bicycle parking, including parks, city services, and private businesses. In working with the NLR city attorney's office, the Bike Rack Joint Use Agreement was developed to ensure proper placement, usage, and availability of the bike racks for the public. A map will be created of all the city installed bike racks and placed on the city bicycle website for easy identification and maintenance of all bike racks.



Thanks to the North Little Rock Streets Department for installing racks throughout the City of North Little Rock and NLR Parks and Recreation for installing the bike racks in NLR's parks.



## Outcomes (What gets Measured/Accomplished)

### ***Knowledge, Attitudes, Beliefs***

*Local survey data collection at various events or online*

- Increase in knowledge and attitude of one's own responsibility to promote good health and prevent injuries
- Decrease in negative perceptions of cycling
- Increase in motorists' positive attitudes of sharing the road and knowledge of 3-foot passing law
- Decrease in negative perceptions about the safety of bicycling
- Increase in motorists' and cyclists' knowledge of bicycle safety laws



### Trail Safety Day

NLR plans to continue the 3-foot passing campaign and expand the share the road education along with share the trail education that was started recently with the Arkansas River Trail Safety Day during National Safety Month in June 2013. The idea was to share trail etiquette among all trail users and provide some energizer stations along the trail during a hot weekend. The event brought together a mixture of cyclists, runners, and equestrians to provide education for all users on the trail.

To promote safe cycling, both NLR and Central Arkansas Velo (CARVE) fitted and passed out helmets to cyclists who needed them. CARVE, which represents a racing cycling club, had a cyclist there recovering from an accident and educating on the benefits on properly fit helmets. NLR gave away lights and 3-foot bumper stickers while our NLR Fire Department Bike Team was on hand to provide education as well. The Central Arkansas advocacy group, BACA, hosted a large safety area that benefitted cyclists. We hope to continue this trail safety day with BACA on a yearly basis during National Safety month in June.





## Arkansas Ranks 50th in Bicycle Commuters

In the report “Where we Ride: An Analysis of Bicycling in American Cities” the League of American Bicyclists ranked each state according to bicycle commuters as a share of all commuters. Arkansas ranked 50th in the nation with .08% bike commuters, .17% bike commuters since 2005, and a –54% change in bicycle commuters from 2005 to 2012.

Data for this report was collected from the American Community Survey conducted every year by the U.S. Census Bureau. The survey is based upon a sample of the U.S. population and is released in 1, 3, and 5 year average estimates. The data in this report is based upon the 1 year estimate for 2012, the most recent year reported.



## Outcomes (What gets Measured/Accomplished)

### Actions

- Increased bicycle handling skills, traffic skills, and sharing the road for cyclists
  - (see *Bicycle and Pedestrian Count Program* below)
- Increased bicycle helmet usage
  - (see *Bicycle and Pedestrian Count Program* below)
- For motorists, increased their skills in sharing the road, including safe distance in passing, following distance, and opening doors
  - Motorist survey
- Individuals actively promote practices to prevent injury and increase good health
  - Percent of population getting no regular physical activity (Outcomes used by Reconnecting America) <http://www.cdc.gov/physicalactivity/data/index.html>
- Increased the number of adults and students who commute by bicycle
  - Percent of commuters who walk or bike: American Community Survey 2010-2012 (Outcomes used by Reconnecting America) <https://www.census.gov/acs/www/>
  - National Household Travel Survey <http://nhts.ornl.gov/tools.shtml>
- Increased usage of North Little Rock bicycle facilities
  - Bicycle and Pedestrian Count Program - <http://bikepeddocumentation.org/> Each fall, North Little Rock staff and volunteers count at approximately 5-10 locations through North Little Rock and also include pedestrian counts as well. In addition to the raw count, other data is collected on the cyclists including:
    - Direction of travel
    - Gender
    - Age
    - Helmet usage
    - Sidewalk riding
    - Riding the wrong way against traffic



## Wayfinding Signs in NLR

The Arkansas River Trail Task Force led the project for new wayfinding signs that were installed along the Arkansas River Trail in North Little Rock, Little Rock, and Pulaski County in the summer of 2013. More signs will be developed and installed in 2014. In addition to the wayfinding signs, new branded, directional Arkansas River Trail signs were installed along the Arkansas River Trail along with sets of “Leave No Trace” signs.

The “Leave No Trace” signs caution trail users to display proper etiquette such as “Cyclists Slow Down”, “Share Our Trail”, and “Leashed Dogs Welcome”. In addition to the signs, the Arkansas River Trail Task Force designed waterproof trail etiquette hang tag cards to be distributed at cycling and pedestrian events. NLR helped to distribute these cards at the ALS Bike and Hike, BACA, Trail Safety Day, Aptalis Cycle for Life, and local bike shops.



## Outcomes (What gets Measured/Accomplished)

### Actions *(continued)*

- Increase in cyclists’ positive behavior and adherence to traffic laws and best practices
  - Bicycle and Pedestrian Crash Analysis - update a citywide bicycle crash analysis annually. The crash analysis is used to help identify mitigation strategies such as wrong way signs and pavement markings, as well as to help identify enforcement education that is needed. North Little Rock staff will analyze pedestrian crash information. The Bicycle Crash Analysis quantifies the number of total crashes, crashes per population and fatal crashes. Additional factors will be considered including:
    - General location
    - Daylight conditions
    - Alcohol as a factor
    - Bicyclists and motorist actions (Going straight, turning left, turning right, etc.)
    - Bicyclist and motorist violations (Speeding, running stop sign, no improper behavior, etc.)
- Increase in NLRPD’s enforcement of bicycle related safety laws
  - Metroplan reports



## Outcomes (What gets Measured/Accomplished)

### Conditions

- Decreased chronic disease indicators among North Little Rock adults and youth
  - <http://www.cdc.gov/DataStatistics/>
- Community encouragement of cycling is recognized as an economic factor.
  - Neighborhood and/or business association survey
- Decrease in the number of parent drop offs and school bus attendance due to the number of youth walking and riding their bikes to school
  - SRTS Parent Travel Tally
- Cyclists are treated as full and equal users of the road, parks, and trails (Cycling Equality)
  - Enforcement of laws and legislation
  - Equal funding of projects
- Improved NLR safety conditions through education, enhanced infrastructure, and enforcement
  - <http://www.cdc.gov/DataStatistics/>
  - Metroplan reports



### NLR Levy Trail

The most significant infrastructure improvements for the next year will include the continuation of the Levy Trail, which was an abandoned railroad spur that NLR acquired for the express purpose of converting into a bike/ pedestrian trail. The trail is located in the Levy neighborhood of NLR, where walking or biking is a necessity for many residents. The Levy Trail runs parallel to Camp Robinson Road, Levy's main commercial strip, and has increased safety and access for pedestrians and cyclists traveling to their shopping, employment, or service destinations.

Phase 2 of Levy Trail construction will add another 2.5 miles to the paved portion of the trail and create a crucial connection to the rest of NLR's Bike System and to cities to the north and west.



## ***Bicycle Account Recommended Data and Sources***

*(Some data sources might be used for Impacts)*

<b>Bicycle Traffic</b>		
	<b>Bicycle traffic data</b>	<b>Data Source</b>
<b>Required Data</b>	Bicycle mode share	American Community Survey (US)
	Bicycle counts (prefer 5-10 locations)	National Household Travel Survey (US)
	Average bicycle trip distance travelled per day	Statistics Canada (Canada)
<b>Desired Data</b>	Cyclist age, gender, trip purpose, income, profession and location	National Household Travel Survey (US)
	Historic development of bicycle trip distance and mode share	Regional Trip Diary Surveys Statistics Canada (Canada)
<b>Infrastructure</b>		
	<b>Infrastructure</b>	<b>Data Source</b>
<b>Required Data</b>	Length of bicycle network, in terms of off street facilities (paved and un-paved), and on street facilities (bicycle lanes, cycle tracks, bicycle boulevards)	Public Works Department
	Public bicycle parking	Planning / Bicycle Planning Department
<b>Desired Data</b>	Brief description of planned or current bicycle projects	
	Resident poll/survey identifying: Location of the most needed bicycle facility	On-line surveys
	Location of the most needed bicycle parking	Telephone surveys
	Best existing bicycle facility Best end-of-trip facilities / bike parking	
<b>Cycling Quality</b>		
	<b>Infrastructure</b>	<b>Data Source</b>
<b>Required Data</b>	Bicycle-motorist collision data	NHTSA/NCSA (US)
	Bicycle fatality and injuries	Road safety agencies
	Collision locations	
<b>Desired Data</b>	Residents' perception of cycling quality, with parameters such as: Perception of amount of off-street facilities	On-line surveys
	Perception of amount of on-street facilities	Telephone surveys
	Perceived safety when cycling	
	Overall quality of the city to cycle in	
	Quality and availability of bicycle parking	
	Quality of maintenance of on and off-street bicycle facilities	
	Quality of community leadership, dedication, and responsiveness to bicycling community	
	Feasibility of combining bicycling and transit trips	
	What could get residents to cycle more / primary deterrents	
	Importance of cycling conditions based on gender, age, occupation, and location of home/work/school	

# North Little Rock Bicycle Friendly Community Evaluation Model "theory of action"

SITUATION	INPUTS	ACTIVITIES	OUTPUTS	Knowledge	Actions	Conditions
NLR has achieved Bronze BFC status	NLR Staff Time	Encourage cycling as a healthy transportation alternative/ recreation option and promote safe cycling through BikeEd	Bike School Days/SRTS Bike Month Repair Workshops 3 Feet Campaign ART Campaign Smart Cycling Motorist Ed Enforcement	Increased knowledge and attitude of one's own responsibility to promote good health and prevent injuries	Increased bicycle handling skills, traffic skills, and sharing the road for cyclists	Decreased chronic disease indicators in NLR adults and youth
SLMs improve interactions between bicyclists and motorists	NLR FD Team					
NLR PD Patrol						
NLR BFCC						
The most traveled to destination for families on bikes was to parks and playgrounds	Relationships with national, regional, state, and local health and cycling experts, networks, and advocates	Implement infrastructure according to the NLR Bicycle Master Plan and Complete Streets Policy, NACTO/AASHTO	One site to list bike opportunities	Decrease in negative perceptions of cycling	Increased bicycle helmet usage	Community encouragement of cycling as economic factor
NLR was the first and only city in AR to fund a safety campaign for the statewide 3 feet passing law for bicyclists	Organizational resources from the City of NLR, the NLR BFCC and the Parks and Recreation Department	Support NLR business in becoming bicycle friendly	Master Streets Plan Bike Master Plan Complete Comm.	Increase in motorists' positive attitudes of sharing the road and knowledge of 3 foot passing law	For motorists, increased skills in sharing the road, including 3 feet passing and opening doors	Decreased school bus need/parental drop offs/ increased walking and biking to school
Among children ages 14 and under, more than 80 percent of bicycle-related fatalities are associated with unsafe cycling behavior						
Arkansas is one of the top 10 states with the highest obesity rates						
In 2009, women accounted for only 24% of bike trips (yet 83% of women have a positive view of cycling)						
Cyclists are unaware of traffic laws						
No way, no how riders make up one-third of population						
		Target the 60% of people who are interested in cycling but concerned about safety, paying special attention to youth, women, and families	Bike Racks LAB BFB Social Marketing AR River Trail Levy Trail Park Hill Loop Bike School Days/SRTS Kidical Mass	Decrease in negative perceptions about safety of bicycling	Individuals actively promote practices to prevent injury and increase good health	Cycling Equality
		Expand the bicycle system to provide better riding conditions for bicycle commuters	Increase bike lanes Implement infrastructure improvements concurrently with overlay program Increase # of safe commute routes to work	Increase in motorists' and cyclists' knowledge of bicycle safety laws	Increase in the number of adults and students who commute	Improved NLR safety conditions through education, enhanced infrastructure, and enforcement





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