



Annual Report 2014









The Baltimore Metropolitan Council

The Baltimore Metropolitan Council (BMC) is a nonprofit organization that works with the region's elected executives to identify mutual interests and develop collaborative strategies, plans, campaigns and programs that will help improve the quality of life and economic vitality.

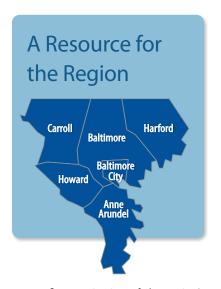
BMC is a resource for the region, staffing and coordinating the Baltimore Regional Transportation Board (BRTB), the metropolitan planning organization

Baltimore Metropolitan Council

(MPO); the Opportunity Collaborative, a U.S. Department of Housing and Urban Development–funded initiative working to create a plan to bring together housing, workforce and transportation initiatives; and serving as a council of governments organization (COG) for cooperative purchasing, emergency preparedness and reservoir protection.

BMC's board includes the Mayor of Baltimore City, the elected executives in Anne Arundel, Baltimore Harford and Howard counties, as well as a member of the Carroll County Board of Commissioners. In 2014, BMC's board added two representatives from the Maryland General Assembly. BMC's staff also works closely with the staffs of member jurisdictions.

Regional planning in the Baltimore region started in 1956, when the Maryland Department of Planning created the Baltimore Regional Planning Council. In 1963, the Regional Planning Council emerged as a separate state agency. Then the name of the organization changed to Baltimore Regional Council of Governments (BRCOG) to reflect the RPC's resolve to serve as the voice of local government in 1989. Finally, in 1992, the Maryland General Assembly dissolved BRCOG and created BMC as a private



nonprofit organization of the region's elected executives, to meet the need for a smaller, more efficient organization.

BMC is an invaluable link between federal funds and regulations, state and regional decision-makers, transportation planning entities, project and initiative stakeholders and the public. The forum and resources BMC provides allows for thoughtful and progressive regional planning efforts of short- and long-term projects.



A Message from the 2015 Chairman

Improving the quality of life for those in the Baltimore region is the goal of many people and organizations in our area, especially local government. Each year we are challenged to address the ever-increasing needs of the region with limited resources through thoughtful and sustainable solutions. Many times, the best solutions to our regional problems are found in working together; sharing resources and ideas. Few organizations are able to address the needs of our region with the same success as the Baltimore Metropolitan Council (BMC).

I am honored to serve as Chairman of the Baltimore Metropolitan Council in 2015. BMC offers local officials and other entities the opportunity to more easily combine resources, and work collaboratively on programs and solutions to address the similar challenges we all face. 2014 saw great strides for the BMC and 2015 promises to be even better.

BMC's fiscal responsibility represents our commitment to work together and maximize the return on our tax dollars; spending funds prudently to obtain responsible outcomes. BMC consistently provides a positive return for member jurisdictions on their BMC investment. This return on investment is magnified many times over through savings in regional projects and initiatives; actual

services; and unobligated funds repurposed in succeeding years.

In addition, the benefits of regional coordination and cooperation were best exemplified in 2014 through the work of the BMC's Baltimore Regional Cooperative Purchasing Committee (BRCPC). Our member jurisdictions and entities avoided an unprecedented spike in energy costs caused by the frigid temperatures that hit most of the East Coast. As a result, 23 participating entities avoided paying an extra \$15 million in energy costs through the work of the BRCPC.

Transportation planning is one of the biggest challenges the Baltimore region faces, but it is also one that provides vast opportunities. BMC staff members spent much of the year working on Maximize2040: A Performance-Based Transportation Plan, which will serve as the blueprint for long-term projects and initiatives for the Baltimore Regional Transportation Board (BRTB), the region's metropolitan planning organization. BMC excels in providing expert technical assistance for transportation issues. This assistance enables local and state entities to better plan for projected growth and helps to prioritize future investments in transportation.

Likewise, the Opportunity Collaborative's continued efforts in developing a Regional Plan for Sustainable Development (RPSD), will help coordinate transportation, housing and workforce develop-

ment. The publication of several studies, followed by expert panel discussions and site visits throughout the country enabled the Opportunity Collaborative members to understand what problems the region faces.

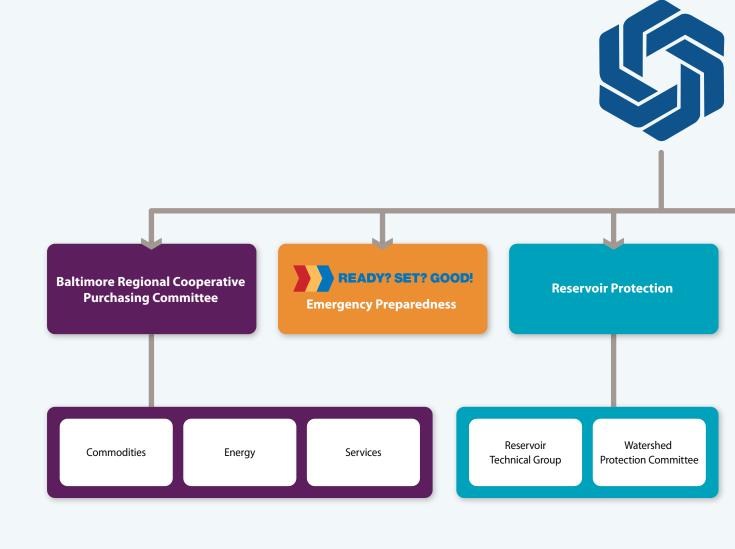


Finally, I am eager to lead my colleagues in the Baltimore region as we coordinate our priorities and continue to move forward. Together we will continue the work to ensure that we thrive as a region, this year and thereafter.

Kerin Kamerey
County Executive Kevin Kamenetz
Baltimore County







Public Involvement

Safety Planning and Analysis

Congestion Management and Operations Freight Mobility Planning, Cooperative Forecasting Long-Range Plan and Transportation Improvement Program

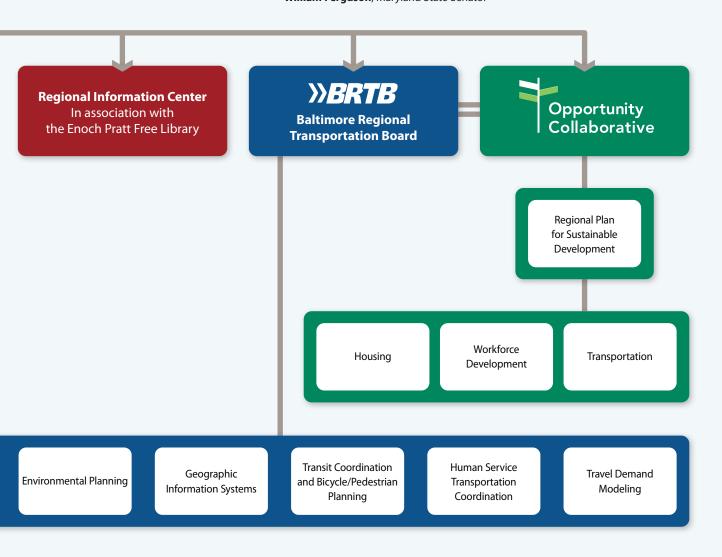




Baltimore Metropolitan Council

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Transportation Planning

Thoughtful and progressive transportation planning is a necessity in the Baltimore region to keep commuters and goods safely reaching their desired destinations, while increasing opportunities for communities and individuals alike, and proactively preparing for the needs of future generations. The Baltimore Regional Transportation Board (BRTB), the federally designated metropolitan planning organization (MPO) for the Baltimore area, facilitates such initiatives.

The BRTB coordinates planning and federal funding for significant new transportation improvements. The Baltimore Metropolitan Council (BMC) is the host agency of the BRTB, while the chief elected officials of the region and representatives from state agencies make up the voting members of the board. Numerous committees and subcommittees also advise the BRTB in specific technical and policy areas.

Helping us get to where we want to go









Public Involvement and Outreach

Transportation affects each of us on a daily basis, but not in the same way. The BRTB continues to work to ensure that, through public involvement initiatives and outreach, all people have a chance to voice their opinions regarding important decisions in transportation planning in the Baltimore region. Such initiatives serve to both educate and engage the public on transportation issues and plans.



In September, the BRTB launched a 3-month comment period and major outreach effort for public project ideas for *Maximize2040*. The BRTB collected more than a thousand project

ideas through an online map, from outreach conversations at community and industry events and pop-up outreach around the region.



The launch of Maximize 2040: A Performance-Based Transportation Plan, the Baltimore region's next long-range transportation plan, is the single largest engagement initiative of 2014.

Approximately 100 people, including staff members, regional transportation experts and members of the public, helped to kick off *Maximize2040* on April 9 at the Baltimore Museum of Industry. Attendees spoke directly with BRTB members about the proposed goals for *Maximize2040*.



The BRTB also worked directly with its Public Advisory Committee (PAC) to provide more clarity to its involvement and outreach process. The PAC is a diverse group of 30 community

leaders, residents and nonprofit representatives from each jurisdiction, who bring a wealth of knowledge and essential feedback on projects, plans and BRTB initiatives. In 2014, PAC members were key in updating the BRTB's Public Participation Plan. PAC members also volunteered to do outreach at events throughout the region, enabling the BRTB to reach a greater audience.



In June and July, the BRTB received more than 200 responses to a survey for *Maximize2040* on major trends and external forces that could play a major role in the region's transportation system in 25

years. Such major trends and external forces included driverless cars, drone-delivered packages and an aging population. The BRTB released the survey results to the public in the fall.



Street Smart, Bike To Work Day, Maximize2040 and clean air initiatives are just a sample of the educational campaigns and programs that staff members represented at outreach events through-

out the region including the Baltimore County Baby Boomer and Senior Expo, LatinoFest 2014, Healthy Harford Day, Baltimore EcoFestival, Towsontown Spring Festival and various communities' National Night Out celebrations.







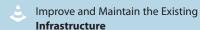


Long-Range Transportation Planning

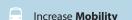
The federal Moving Ahead for Progress in the 21st Century Act, or MAP-21, requires each metropolitan planning organization in the United States to develop a long-range transportation plan for its region. The long-range plan identifies the region's transportation-related goals, strategies and lists the major projects the region expects to implement over the next 20–25 years. The BRTB, as the region's MPO, selects these projects in consultation with state agencies and local jurisdictions, in accordance with federal requirements and regional goals and policies.



Improve System **Safety**







- Conserve and Enhance the **Environment**
- Improve System **Security**
- Promote **Prosperity** and Economic Opportunity
- Foster **Participation** and Cooperation Among Stakeholders
- Promote Informed Decision Making

Developing the next long-range transportation plan

Regional transportation planning means thinking about projects 20 to 25 years in the future. The BRTB kicked off *Maximize2040: A Performance-Based Transportation Plan*, the next long-range regional transportation document, in spring 2014.

Maximize2040—which is scheduled to go before the BRTB for approval in November 2015, with federal agency acceptance of the air quality conformity determination to follow shortly thereafter—will contain a list of the major surface transportation projects the region expects to implement in the period from 2020 to 2040. This plan also will establish the region's broad transportation goals and performance measures. The goals will serve as guiding principles as the region plans and carries out projects.

Performance measures will enable the BRTB to monitor and evaluate, over time, the performance of the region's transportation system, consistent with federal requirements and regional goals.

Staff members worked diligently throughout 2014 to begin creating *Maximize2040* through the development, public involvement and BRTB approval of:

- Regional goals and supporting strategies
- Regional population and employment forecasts out to 2040
- Financial forecast showing projected 2020–2040 revenues from federal, state and private sources

- Regional performance measures and targets in accordance with MAP-21 requirements and goals
- Evaluation criteria for major candidate projects for Maximize2040

Efforts also resulted in:

- A call for major project ideas from the public resulted in more than a thousand suggested projects
- Application of a scenario planning approach to consider how major future forces could affect the region and its transportation network
- A call for major projects from the jurisdictions and state modal agencies

Major CY 2015 activities for Maximize 2040 will include evaluation and modeling of candidate projects as part of the development of a preferred set of projects. In the modeling phase, the BRTB will apply a travel demand model to predict where and how people will travel, assuming the preferred set of projects were added to projects already in the regional network. Staff members also will apply the model to determine how this set of projects will affect low-income and minority populations. In addition, they will work with the Maryland Department of the Environment (MDE) to determine if Maximize2040 projects will conform to federal air quality standards and state air pollution emissions budgets.





The Transportation Improvement Program

The BRTB is responsible for developing the Transportation Improvement Program (TIP), an annual short-range document that contains details on projects and funding that will occur during the upcoming four years. The TIP must incorporate any transportation projects in the region requesting the use of federal transportation funds. It is developed in coordination with goals outlined in the long-range plan.

The BRTB coordinates the TIP with the Maryland Department of Transportation (MDOT), the Maryland State Highway Administration (SHA), Maryland Transit Administration (MTA), City of Annapolis, Baltimore City, and Anne Arundel, Baltimore, Carroll, Harford and Howard counties.

The BRTB amended the 2014–2017 TIP seven times to reflect new or revised projects. New projects to the TIP includ-

ed preliminary engineering for an interchange on I-795 at Dolfield Boulevard; project planning for a Hanover Street Bridge multimodal corridor study; the purchase of an all-electric water taxi for the Charm City Circulator commuter service; and reconstruction of Greenmount Avenue between 43rd and 29th streets.

Revised projects include: preliminary engineering and construction for bridge repair and replacement in Carroll County; preliminary engineering and construction for replacing signs on major roadways in Baltimore City; and additional funding for the Baltimore Red Line, Metro railcars, and safety and spot improvements around the region.

The BRTB promoted public comment periods and reviewed potential effects to air quality for all amendments to the TIP. The upcoming four years of projects and funding













Transportation Safety Planning and Analysis

The Baltimore region accounts for approximately 40 percent of the total statewide fatalities for those in vehicles, on bicycles or involving pedestrians, and 50 percent of the statewide injuries. Staff members work with local jurisdictions and state agencies to analyze the data for trends, as well as plan for projects and programs to reduce the staggering number of incidents in the region. The Safety Subcommittee brings together local stakeholders from the 4 E's—engineering, education, enforcement and emergency medical services—to work

towards improved traffic safety throughout the region.

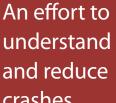
Street Smart Pedestrian Safety Campaign

The 2014 Street Smart educational campaign included a partnership with the Johns Hopkins Bloomberg School of Public Health to develop and implement new creative and messaging to promote pedestrian safety in the Baltimore region. The messaging, meant to inform the public of real-life consequences of driver, pedestrian and bicyclist crashes, came directly from local police reports.

The new advertisements use hard-hitting images with a STOP, WAIT, GO SLOW—Be Alert, Don't Get Hurt message aimed at all road users.

Street teams promoted the Street Smart campaign along 15 high-crash corridors in Baltimore City and Baltimore, Anne Arundel and Harford counties by handing out safety information and wearing the new advertisements. Outdoor advertising included transit, gas-pump toppers, online banners, radio public service announcements and updates on the Street Smart website.

Staff members also participated in the Towsontown Festival, the African-American Cultural Festival, Aberdeen Proving Ground Resiliency Fair, and Healthy Harford Day to promote pedestrian safety.







Regional Traffic Signal Forum

Staff members and the Traffic Signal Subcommittee of the BRTB organized the seventh annual regional traffic signal forum on Nov. 6 at the Maritime Institute of Technology and Graduate Studies. More than 200 traffic signal technicians, designers and engineers from Maryland, Delaware, Virginia and Washington D.C. attended the event, which was jointly held with the annual meeting of the Intelligent Transportation Society of Maryland (ITSMD).

The forum included sessions on multimodal signal operations, how transportation can leverage big data, corridor operations and connected vehicles and next generation traffic management. It also featured a panel discussion on operations and maintenance that touched on managing resources, measuring performance and regional coordination. Don Fry, president and CEO of the Greater Baltimore Committee (GBC), delivered the keynote address.



Transportation-related travel monitoring—both present and potential patterns—is of particular importance in the regional planning process. Not only does such an activity provide data on the state of travel in the region, but it also is used to validate the regional travel demand model.

Staff members, along with state and local entities, collect, analyze and report vehicle, bicycle and pedestrian data. Data ranges from Highway Performance Monitoring System (HPMS) counts, hourly traffic volumes, vehicle occupancy counts, vehicle mix, to level of service measurement are major components of the BRTB regional data collection program.

In 2014, the BRTB continued its work from the previous year with regards to identifying specific locations throughout the region to count the number of people walking or riding a bicycle. Staff members used digital video recording technology, followed by observation data upon review of that video footage to keep count. An interactive public map displayed the counts so that the BRTB could share the information with key stakeholders.

Likewise, vehicular traffic counts were taken at 64 locations as part of the BRTB's 3-year cycle of the count program. The data is displayed in an interactive online map.

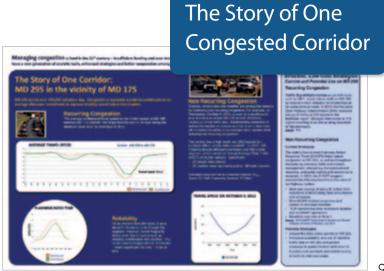
The BRTB also consulted with representatives of SHA to determine the most strategic locations to take bicycle and pedestrian counts. Staff members conducted counts at pedestrian road safety

audit (PRSA) corridors, high crash locations, and to support transit oriented development (TOD) studies. Bicycle and pedestrian counts are scheduled for inclusion in the BRTB's upcoming spring data collection activities.

As part of the BRTB spring data collection program for 2014, vehicle occupancy data was collected in 38 locations in the regional activity centers of Annapolis, Columbia, Fort Meade, Hunt Valley, Owings Mills and Towson. Staff members also developed a new interactive online mapping program in 2014 for displaying the vehicle occupancy data. This map already is highly useful to quickly answer data requests from the public, as well as for a large data request from state and local agencies.

Congestion Management Process

MPOs along the corridor from New Jersey to Washington, D.C. partnered to develop a template brochure that each could customize to tell the story of congested corridors in each region. Staff members then prepared a brochure for MD 295 in the vicinity of MD 175, a corridor with one of the worst bottlenecks in the Baltimore region. The brochure explains how recurring and non-recurring congestion combine to make traffic in the corridor so bad. It also provides some potential strategies that could be implemented or enhanced, if funding was available, to relieve congestion.









Transit Coordination

The BRTB works with MTA to monitor and evaluate the performance of transit systems.

Performance measures adopted in *Plan It 2035*, the current long-range transportation plan, involve monitoring the average ages of transit vehicles and increasing weekly transit ridership. In developing the next long-range plan, *Maximize2040*, staff members worked with advisory committees and groups to revise the current performance measures and to add specific targets to enable the BRTB to assess progress. The measures and

Strategies to better serve riders targets reflect MAP-21 requirements and regional goals.

Staff members also coordinate regional transit analyses under the direction of an ad hoc group. Short-term efforts focus on transit system riders and needs, system assets, service areas and gaps, and barriers to coordination. Staff members worked with a consultant team to develop an inventory of assets and services provided by locally operated transit system agencies in the region. This will serve as a baseline for determining opportunities for local service improvements, as well as improved service coordination with the MTA.

Staff members also serve on a transportation work group with members of the Opportunity Collaborative. The objective is to create more options for workers to commute to family-supporting jobs by

public transit. To this end, staff members analyzed data on transit service to job centers throughout the region. These efforts are coordinated with MTA's Bus Network Improvement Project (BNIP). The BRTB provided transit ridership projections from its travel demand model to support new transit initiatives.

In addition, staff members prepared and distributed the *On Transit* e-newsletter periodically throughout 2014. It informs regional stakeholders about transit-related news of regional and national interest, transit-related publications and resources, and upcoming transit-related events.





Bicycle and Pedestrian Coordination

A major part of metropolitan planning is to support a multimodal transportation system that provides a range of options for a diverse population. Resulting from work in regional forums from previous years, all of the jurisdictions in the region worked on bicycle and/or pedestrian plans. These efforts serve to institutionalize planning across all modes. The work to implement the projects and strategies is underway.

The Unified Planning Work Program (UPWP) continues to fund local planning efforts, and 2014 was no exception.

Baltimore City updated its bicycle master plan while Baltimore County explored a bicycle sharing program. Meanwhile Howard County initiated Phase 2 of a pedestrian facility assessment and is exploring Complete Streets regulations.

The Bicycle and Pedestrian Advisory Group supported the expanding Bike To Work Day event. It also forged a relationship with its counterparts in the departments of Recreation and Parks to expand opportunities for safe biking and walking trips throughout the region.





Traffic Incident Management Support and Training

A key part of advancing the safety and reliability of the Baltimore region's transportation system is through improving incident response.

The Traffic Incident Management for the Baltimore Region (TIMBR) committee was created in 2000 to encourage and enhance traffic incident management (TIM) coordination, communication and cooperation between emergency responders. Greater safety for responders and the traveling public is the ultimate goal.

In addition to supporting the bi-monthly TIMBR committee meetings, the BRTB works closely with SHA and Maryland State Police to roll out national TIM training for emergency responders throughout the state. The training reminds responders how to stay safe at incident scenes. The multi-discipline, multi-agency approach facilitates cross-agency understanding and networking.

The U.S. Department of Transportation (USDOT) tracks the number of responders trained nationwide, with a goal of 100,000 by the end of 2014. Maryland has more than a thousand trained responders-from transportation, law enforcement, fire and emergency medical services, to towing organizations.

Freight

The Baltimore region plays a major role in bringing goods from freight shipping containers to warehouses, then stores and ultimately into your home.

The BRTB works with state and local stakeholders to identify critical infrastructure needs to support safe and efficient freight movement in the region. These include improved access to the Port of Baltimore, identifying truck parking needs and facilities, local economic activity corridors, among others.

Interstate 83 (I-83) is widely considered one of the most critical corridors in Maryland in terms of the demand as a freight corridor. The purpose of the I-83 Truck Parking Counts Program is to determine the magnitude of the truck parking demand specifically on the corridor and to support potential truck parking facility development by conducting a truck parking census that includes more detailed attributes of parked trucks.

The BRTB also staffs the Freight Movement Task Force (FMTF) that serves as an advisory committee. Members include representatives from organizations with freight concerns from across the modes, including railroad operators; port operators; trucking firms; airport operators;

freight shippers and receivers; and staff from State and local agencies. The FMTF's main function is to provide the public and the freight movement community a voice in the regional transportation planning process.





Average overnight truck counts



FMTF chair Crystal Darcy (MPA) and BMC Staff at the 3rd annual Truck Pull at Anne Arundel Community College



Air Quality

The Baltimore region does not attain National Ambient Air Quality Standards for ground-level ozone and fine particulate matter. At the same time, new air monitoring data shows that air is getting cleaner.

In May of 2012, the U.S. Environmental Protection Agency (EPA) determined that the Baltimore region had air quality monitoring data that measured annual levels of PM2.5 below the earlier $15 \, \mu \text{g/m}^3$ standard, which was set in 1997. More recently, ozone pollution in the region showed decreasing trends low enough that the region sees monitored ozone levels right at the ozone pollution NAAQS of 0.075 parts per million.

Monitored levels of ground-level ozone reached unhealthy levels only six days in 2013 and four days in 2014. Attainment of the standard is determined by the assessment of three years of moni-

tored data in a region. All monitors in the region must meet the standard.

Metropolitan areas that do not reach federal air quality standards, including the Baltimore region, are federally required to carry out a determination of conformity. This determination ensures that transportation plans and programs do not hinder efforts of the state in reducing emission of these pollutants. This analysis must be completed for the BRTB to receive federal transportation funding. This process is coordinated through the Interagency Consultation Group, a subcommittee of the BRTB.

The BRTB completed its most recent conformity determination of a Transportation Improvement Program (TIP) in fall 2013. Transportation conformity is demonstrated when the projected emissions from the region's transportation system do not exceed motor vehicle emissions

limits set in the State Implementation Plan (SIP). The BRTB will be required to perform a conformity determination on the next TIP and *Maximize2040*, which both are scheduled for completion in 2015.

In addition to addressing the federal conformity requirement, the BRTB initiated a study in 2013 to explore the level of greenhouse gas reductions that can be achieved through a number of transportation emission reduction measures. In 2014, an oversight committee formed to lead the study and to guide staff as scenarios are set up through an emissions model called the Energy and Emission Reduction Policy Assessment Tool (EERPAT). EERPAT is a tool adapted from the Oregon Department of Transportation Greenstep model by the Federal Highway Administration.

Where does ozone pollution come from?

- Electric generating units
- On-road mobile sources such as cars, trucks, and buses
- Off-road sources such as construction equipment
- Areas sources, which means anything from dry cleaning to paint fumes

How have we reduced ground-level ozone pollution?

- The Maryland Healthy Air Act
- The national fuel/engine standards (and vehicle fleet turnover)
- National power plant rules
- Maryland's aggressive suite of regulations that reduce NO_x emissions
- National fuel/engine standards are expected to produce reductions in emissions from the transportation sector moving into the future, through the Tier 3 standards, low sulfur fuel, and the corporate average fuel economy (CAFE) standards.

Ozone Pollution (parts per million) 0.0950 0.0900 0.0850 0.0800 0.0750 0.0700 0.0650 0.0600 Edge- Davidson- Essex Aldino Padonia South Furley Carroll 2009-2011 2012-2014 — 2008 Ozone Standard

Every monitor in the Baltimore region read lower levels of ozone pollution in 2012–2014. (2014 data is draft and still needs to be certified.)



Commuting Options

BMC promotes a variety of options to ease traffic congestion and improve air quality. BMC works to reduce single occupancy vehicle (SOV) trips as well as decrease the length of those trips through several programs:

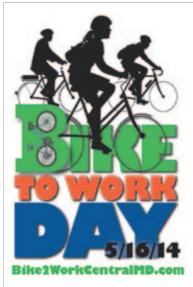
Rideshare. BMC hosts the Rideshare programs for Baltimore and Carroll counties, which promote work trip alternatives such as region-wide carpooling/van-pooling/transit trip matching, Guaranteed Ride Home, employer outreach, and our Park & Ride Lot Interactive Map. All of these services are free and are available through the Metrorideshare.com website.

Teleworkbaltimore.com. BMC and MDOT provide a free online resource for employers in the Baltimore region who wish to start or expand a formal telework program. Employers need to visit the website and register to gain access to free materials that can help them start a program. Registered employers can also get free assistance from a telework consultant to better tailor a program to their specific workplace.

The Clean Commute Initiative. Every summer, BMC and its member jurisdictions go directly to the public and remind them that their personal commuting choices affect the air quality for all of us. Staff members take part in community festivals and fairs in every corner of the region, asking individuals to consider transportation options other than driving alone. In addition to this grassroots outreach, BMC and the BRTB sponsor paid radio advertising promoting the Clean Commute messaging.

Bike To Work Day. A major component of the Clean Commute Initiative is Bike To Work Day (B2WD). Held on the third Friday of May, B2WD raises awareness of bicycling as a legitimate, viable and safe mode of transportation. There are early morning rallies and organized rides held in each of BMC's member jurisdictions. Participation in this event has steadily increased throughout the years, with 2014 seeing more than 1,400 registered riders.













Cooperative Forecasting

Using a solid socioeconomic dataset is a key part of understanding future travel patterns and behavior. That's why the BRTB—along with economists, demographers and planners at state and local planning offices, and others who specifically are responsible for generating socioeconomic forecasts for the region—make up the Cooperative Forecasting Group (CFG) to establish projected population, households and employment.

The forecasts provide decision makers with an estimate of the effects of growth upon travel demand, air quality and future year highway and transit networks. In 2014, the CFG developed the Round 8A socioeconomic forecasts, which provide regional, jurisdictional and small area estimates through 2040. The BRTB subsequently endorsed these forecasts on June 24. The CFG reviews changes in local land use patterns, discusses socioeconomic trends, newly released U.S.

Census Bureau figures and other indicators. Then the group makes adjustments to existing forecasts to reflect new developments, changing market conditions and changes in local policy.

Development Monitoring

Tracking development activity is important to the transportation planning process as it supports the estimation of both the scale and location of population, household and employment growth. This, in turn, helps measure the growth impacts and demands on the region's transportation network.

Every new construction project and any significant improvement to an existing structure require a building permit. BRTB compiles the region's building permit information from each of the six jurisdictions, the City of Annapolis and towns of Aberdeen, Bel Air and Havre de Grace,

organizing it into a standardized database. The resulting information provides a continual record of plans for residential and commercial building projects.

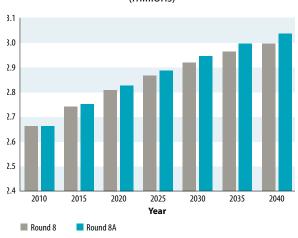
U.S. Census Bureau and American Community Survey

Data provided through the U.S. Census Bureau and American Community Survey is vital in metropolitan planning. Population counts and characteristics help planners to develop regional and community plans for government services for schools, parks and transportation initiatives such as roads, bridges and public transit. The BRTB uses graphs, charts and maps to understand trends, spatial location, concentrations of population and household characteristics to analyze travel patterns and plan for additional transportation services demands.



In 2014, BMC staff developed and released to the public a free interactive mapping tool called the Building Permit Data System Web Service. It allows the user to view a map of building permits. It can be accessed at bit.ly/baltometro-bpds.

Baltimore Region Population (millions)







Providing better estimates for better transportation planning



Monthly reports summarize planned residential, commercial, and mixed-use construction activity across the Baltimore region. The reports include an analysis of regional trends, supported by maps and charts highlighting notable development activity, as well as a comparison with the national trend during the reporting period.



Geographic Information Systems

BMC uses maps and geographic information systems (GIS) analysis throughout its work for a variety of tasks including *Maximize2040*, analyzing regional development patterns, demographic analysis, examining travel behavior, and examining housing and environmental issues. The organization also maintains an enterprise database system that centralizes geospatial data and ensures consistent data quality.

BMC continues to pioneer regional data sharing initiatives with the ongoing Combined Addressing Project. Regional address point and centerline data is available to participating jurisdictions, and there are ongoing efforts to conflate the centerline into a seamless, routable dataset. BMC coordinates with the state to ensure that statewide projects also benefit from access to authoritative local data.

Major initiatives in 2014 included leveraging the latest online technology to make regional data available to the public, as well as creating tools to assist planners and transportation professionals in improving evidence-based performance measures. Some of BMC's new online web applications include online

traffic maps, an interactive tool for studying commuting patterns, and a building permit web viewer with data that is directly accessible in GIS software. This technology also supports *Maximize2040* with the creation of an interactive application that allows the public to publish project ideas and comments on a map.

BMC continues to be a leader of GIS coordination in Maryland and beyond state borders. Staff members sit on the executive team of the Maryland State Geographic Information Committee (MSGIC) and attend meetings that oversee the development of statewide GIS capabilities. BMC also provides continued coordination and technical support to the Baltimore Region Geographic Information Systems Committee (BRGISC), a working group for GIS staff in the Baltimore region. BMC is a voice for improving U.S. Census data quality and accessibility at the national level through the Transportation Research Board.





Travel Demand Modeling

From household doorstep to work and back again, the BRTB conducts travel demand modeling to understand how best to shape regional transportation plans. That is, they use software to determine regional household travel such as daily commutes to work, running errands, transporting children and freight movement.

BRTB completed the Energy and Emissions Reduction Policy Analysis Tool (EERPAT) as part of a Federal Highway Administration pilot. In combination with the General Transit Feed Specification, which analyzes transit accessibility, EERPAT analyzes the effects of various greenhouse gas reduction policy scenarios. It simulates the travel choices residents will make in response to horizon year policy investment scenarios. Projections incorporate such factors as household and employment growth, available transit modes, number of highway lanes, access to goods and

services, and employment. EERPAT helps the policy board make investment decisions in the development of transportation plans.

BRTB continued development of a household travel modeling system called Initiative to Simulate Individual Travel Events (InSITE). InSITE considers various activities an individual performs and focuses on coordinating individual activity sequences over the 24 hours of the day, such as staying at home, working, shopping and running errands. It also allows coordinating travel needs of household members to plan daily travel schedules. Once completed InSITE will replace the existing regional travel demand model and will be used for transportation planning, including the development of long-range and short-range transportation plans.

According to the Federal Highway Administration, freight volumes are expected to double by the year 2035. BRTB and SHA

received a Strategic Highway Research Program 2 grant of \$350,000 to develop a freight supply-chain and urban commercial vehicle model. The project will provide simulations on the components of freight movement, such as the locations of cargo transfers, types of commodities, and patterns of long-distance freight routing and local delivery. The grant will also help improve the State Highway Administration's and BRTB's existing freight travel tools. The freight model will provide insight into suppliers' and distributors' choices of transportation mode and shipment size. The commercial vehicle model will simulate local delivery of goods and services to area households. BRTB's freight travel tools ensure that transportation decision making is responsive to policies, trends, and performance measures.



Travel Model Framework Inputs Outputs Demographics Traffic volume Employment Transit ridership Transportation system • Travel time to destination **Process** Travel delays/speed Surveyed travel patterns and Vehicle miles of travel behaviors Number of trips Auto ownership









Emergency Preparedness Planning

The BRTB's Transportation & Public Works Committee pursues projects focused on evacuation and emergency preparedness planning. Some of the issues discussed in 2014 include regional evacuation coordination, agency preparations for winter weather and hurricane season, and road closure tracking procedures.

The Baltimore Urban Area Security Initiative (UASI) funds the committee's evacuation and Homeland Security projects.

Highlights from 2014 include the sponsorship of two informative, well-attended events.

The first event, Information Exchange Forum on Response and Recovery from Hurricane Sandy, took place on April 8. It included feature speakers Tom O'Neal, of Howard County Office of Emergency Management, who addressed responding to numerous large-scale disasters, and Barry Eck, an emergency manager in Sayreville, New Jersey, who shared his experience of the response and recovery caused by Hurricane Sandy in 2012.

The second event, a facilitated discussion on evacuation coordination, occurred on May 6. Local and state partners discussed how to conduct a large-scale evacuation and identified areas in need of further coordination.

"Ready? Set? Good!"

Extreme weather, pandemics, terrorist and cyber attacks happen every day around the world. Are you and your family prepared for an emergency?

The first 72 hours into an emergency situation are critical, and you need to be prepared at home. "Ready? Set? Good!" is a regional emergency preparedness campaign that uses a simple, targeted message to educate the public about the need to get ready for any disaster.

BMC, along with the Baltimore Region Urban Area Homeland Security Work Group (UAWG), re-launched the "Ready? Set? Good!" campaign through a more strategic, more targeted communications and marketing plan just in time for National Preparedness Month in September. The campaign is funded through the Maryland Emergency Management Agency (MEMA) by UASI.

The 2014–2015 campaign focuses on homeowners, heads of households and families in a call to action to prepare for an emergency at home beforehand. At minimum, households should put aside a portable, battery-powered radio, flashlight and one gallon of water per person, per day to help get through those first critical hours when basic services are down.

The fall campaign, which ran through December and will resume in March 2015 for the spring, works with CBS Radio and

A call to action for homeowners and families to get ready at home beforehand

WMAR-TV for radio, television, digital and outdoor advertisements. This campaign's emphasis on outdoor advertisement at specific events—such as the Baltimore County Baby Boomer and Senior Expo and the Gathering food truck gettogethers—is meant to meet people around the region and develop a conversation with them about the importance of preparing for an emergency at home.

The Johns Hopkins University Bloomberg School of Public Health, Center for Communications Programs, with input from local emergency planners and first responders, designed the campaign almost a decade ago. The UASI PIO subcommittee includes staff members from BMC, Baltimore City and the City of Annapolis, as well as Baltimore, Howard, Harford and Carroll counties.



Take the time to make sure that you and your family are prepared. For more preparation tips, including a disaster supply checklist, visit www.readysetgood.org. It could save your life.

Opportunity Collaborative

www.opportunitycollaborative.org



Opportunity Collaborative Members

Co-chairs

William H. Cole President & CEO Baltimore Development Corporation

Scot T. Spencer Associate Director for Advocacy & Influence The Annie E. Casey Foundation

The City of Annapolis
Anne Arundel County
Annie E. Casey Foundation
Associated Black Charities
Baltimore City
Baltimore County
Baltimore Integration Partnership
Baltimore Metropolitan Council
Baltimore Neighborhood Collaborative
Baltimore Regional Transportation Board
Citizens Planning & Housing
Association, Inc.

Baltimore Regional Initiative Developing Genuine Equality (BRIDGE)

Central Maryland Transportation Alliance Enterprise Community Partners,

Greater Baltimore Committee

Innovative Housing Institute

Harford County

Howard County

Maryland Department of Housing and Community Development

Maryland Department of Planning

Maryland Department of Transportation

Morgan State University

University of Maryland National Center for Smart Growth

1,000 Friends of Maryland



2014

January

Eight nonprofits around the region receive **demonstration grants** from the Opportunity Collaborative to fund innovative projects that increase access to opportunity.

March

The Collaborative sends a delegation to Chicago to learn more about integrated community planning and housing development.



The Opportunity Collaborative

The Opportunity Collaborative is a regional planning effort funded through a Sustainable Communities Regional Planning Grant from the U.S. Department of Housing and Urban Development (HUD). The Collaborative is working to improve quality of life in our region by reducing economic disparities and increasing access to social and educational opportunity. Staffing and coordination for the Opportunity Collaborative is provided by BMC.

In 2014, the Opportunity Collaborative completed the region's first housing and workforce development plans. The Collaborative's partners, which include more than 25 government, nonprofit and institutional entities, worked together to write these plans. Throughout the year, the Collaborative received valuable comments and feedback from the region's residential and business communities thanks to the work of the Citizens Planning and Housing Association and the Greater Baltimore Committee.

The Collaborative also sponsored learning tours of four other regions to see first-hand national best practices and innovative programs in housing policy, transit projects and anchor institution

Regional partnerships for dynamic regional planning

integration. The knowledge and insights gained from these visits will be incorporated into the planning process.

In 2015, the Opportunity Collaborative's three-year planning process will come to a close with the release of the Regional Plan for Sustainable Development. That plan will better integrate the region's housing, workforce development and transportation systems with the goal of raising the quality of life for all of our region's residents.







March

The Opportunity Collaborative joins **Dialogues for Change**, an international planning workshop in Bottrop, Germany, by invitation from the German Marshall Fund.

April

Each of the region's five workforce investment areas receives an \$80,000 Workforce Investment Grant. These grants focus on providing training and support to residents struggling to establish careers.

June

The Collaborative releases its second workforce study, *Barriers to Employment Opportunity in the Baltimore Region*, during a luncheon at the National Electronics Museum.

August

The Opportunity Collaborative sends a delegation to Hartford, Connecticut to learn more about anchor institutions, alternative transit options and regional education structures.



Housing

Looking at the housing market in the Baltimore region as a whole would strengthen the economy, according to a plan released by the Opportunity Collaborative in 2014.

The Opportunity Collaborative released Strong Communities, Strong Region: The Baltimore Regional Housing Plan and Fair Housing Equity Assessment in November. The plan, which HUD's Office of Economic Resilience funded through a grant, resulted from two years of data analysis and deliberation among local and state agencies, and nonprofit and university partners.

The plan notes an unbalanced regional housing market that contributes to traffic congestion, weakens many central communities, and serves as a key barrier between low-income households and economic opportunity. It also notes a need for affordable housing for more than 70,000 households in the region, including 14,000 low-income families where one or more people have physical disabilities.

The plan includes recommendations for four types of communities in the region:

High Opportunity Communities are strong-market, safe areas with high-quality schools, employment and job growth. The plan recommends more affordable housing opportunities in these areas to link low-income house-holds with opportunity, which would counter the historic trend of locating it in high-crime neighborhoods with poor schools and high unemployment.

Diverse Communities that have roughly the same balance of white and black residents as the whole region. These areas overlap significantly with High Opportunity Communities. In the Baltimore region, they include Columbia; western Anne Arundel County; the Reisterstown Road corridor, Cockeysville and Parkville in Baltimore County; the Route 40 corridor in Harford County; and Baltimore City. The report recommends measures to bolster the market in these communities and intentional efforts to maintain diversity, countering the historic trend of racial change and re-segregation.

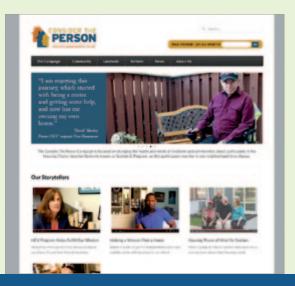
Vulnerable Communities with a soft housing market but no large-scale vacancy in the outer parts of Baltimore City and older suburban communities. The plan strategies to bolster the

Regional planning creates a stronger economy

housing market in these communities similar to the Healthy Neighborhoods program currently in place in portions of Baltimore City.

Highly Challenged Markets are portions of Baltimore City that have historically suffered from redlining and rapid 20th century racial change. These communities are characterized by concentrated poverty, very low housing values, and widespread housing vacancy. The plan recommends both housing mobility options for families who want to move to high opportunity communities, and strategic investments to stimulate a new private market and greater opportunity in these neighborhoods. The plan cites investments currently underway in the Oliver neighborhood north of Johns Hopkins Hospital in East Baltimore as a model for this type of community transformation.





September

The Opportunity Collaborative hosts "Giving Our Region a Chance," a day-long community engagement workshop at Coppin State University.

The Federal Reserve Bank of Richmond hosts the release of the Opportunity Collaborative's third study, *Career Pathways in the Baltimore Region: Transportation and Logistics*.

October

"Consider the Person," a campaign funded through an Opportunity Collaborative demonstration grant, receives an award of excellence in innovation from the National Association of County Community & Economic Development. **The Opportunity Fellows**, the Collaborative's leadership development program, begins work with a two-day retreat.



Workforce Development

The Opportunity Collaborative released two workforce development studies in 2014 as part of its work to develop a Regional Plan for Workforce Development. In June, the Collaborative released the study Barriers to Employment Opportunity in the Baltimore Region, followed by the release of Career Pathways in the Baltimore Region: Transportation and Logistics in September.

The *Barriers...* study analyzed the challenges facing the Baltimore region's workforce in a range of areas including education, transportation and social. According to a survey conducted for the study, 82 percent of job seekers

reported facing at least three barriers to employment, such as inadequate skills, a criminal record or lack of funds to pay for transportation to work. Likewise, 55 percent reported that they face six or more barriers to employment.

Compounding these challenges is an ever increasing need for highly skilled workers. The study found that 53 percent of new jobs created by 2020 will require a high school diploma at minimum. Among its recommendations, the *Barriers...* study calls for the development of new pathways to help lower-skilled job seekers find work and then advance in family-supporting careers.

The second study focused on career pathways for the transportation and logistics sectors. These sectors are a critical area of employment in which 90 percent of the job openings require a high school diploma or less, and many of the occupations have the potential to pay a family supporting wage of \$23 an hour or more.

November

The Opportunity Collaborative releases "Strong Region, Strong Community," a housing plan for the Baltimore region.

January 2015

The Opportunity Collaborative is scheduled to release the **Regional Plan for Workforce Development**.

February

The Opportunity Collaborative is scheduled to release a **transportation study**.

April

The Opportunity Collaborative is scheduled to release the Regional Plan for Sustainable Development.





The Baltimore Regional Cooperative Purchasing Committee

The robust programs offered through the Baltimore Regional Cooperative Purchasing Committee (BRCPC), which range from energy procurement to office supplies, achieve a cost savings to member organizations. This savings is achieved through BMC's coordination of 50 regional contracts, chief purchasing officers, the continual improvement of the bidding process, and expansion of BRCPC's vision.

The energy board, in particular, achieved an astounding cost savings in January 2014 during the frigid weather caused by a polar vortex that distressed regions throughout the United States. Energy costs increased dramatically throughout the Baltimore region as frigid temperatures and therefore higher demand drove the cost of supply.

The energy board is a model for other public entities through its approach in obtaining electricity and natural gas needs through a managed portfolio. The process served its 23 participating entities well during the 2014 polar vortex. The

energy board's procurement in advance of the weather therefore contained costs during the crisis. Participating entities saved \$15.1 million in avoided energy costs. Likewise, the program saved approximately \$100 million in avoided costs since inception in 2007.

BRCPC also expanded its vision to include cooperative purchasing efforts through the Mid-Atlantic Purchasing Team (MAPT). The MAPT is a partnership between the cooperative purchasing groups in the Baltimore and Washington, D.C., regions to create more opportunities to increase a discounted pricing structure.

For example, the MAPT contract for office supplies, led by the Anne Arundel Public Schools, contained a unique requirement that allows for deeper discounts with increased contract usage. The contract began with four entities participating and a contract value of \$4.2 million. That number increased, massively exceeding expectations, to 25 participating entities

Adding value through cost savings

with \$11 million in total expenditures, reaching its maximum discount level.

Similarly, the office furniture contract, which is bid through Howard County, attracted national interest. The latest usage report shows entities from other states, including California, take advantage of the advantageous pricing structure.

50 regional contracts

23 energy board participants



MAPT office supplies contract participants

\$11 MAPT office supplies contract expenditures
million

BRCPC Facts







The Reservoir Watershed Protection Committee

The sustainable distribution of drinking water in the Baltimore region is made possible with oversight and guidance for the Reservoir Watershed Protection Program through BMC's Reservoir Watershed Protection Committee. Recent progress includes an agreement on the technical basis and design of an intensive watershed monitoring plan.

The Baltimore region's drinking water comes from three reservoirs: the Loch Raven and Prettyboy reservoirs in the Gunpowder watershed, and Liberty Reservoir in the upper Patapsco watershed. The watersheds for the three reservoirs lie primarily in Baltimore County (290 square miles) and Carroll County (165 square miles), in addition to 1 square mile in Harford County and

Water Consumption, FY 2014 (million gallons per day, mgd)

Anne Arundel County	1.35
Baltimore City	69.45
Baltimore County	65.55
Carroll County	2.09 raw
Harford County	5.59 raw
Howard County	20.93

 $\begin{array}{lll} \textbf{Total regional} & 164.96_{\text{mgd}} \\ \textbf{Systemwide} & 11.50_{\text{mad}} \end{array}$

Caring for the region's drinking water

4 square miles in York County, Pennsylvania. This system provides potable water to residents and businesses in Baltimore, Howard and Anne Arundel counties, as well as Baltimore City.

In 1978, a region-wide water quality plan called for an intergovernmental agreement to protect reservoirs' water quality. Baltimore City, and Baltimore and Carroll counties signed a Reservoir Watershed Management Agreement the following year. In 1984, the jurisdictions, along with soil conservation districts and state agencies, signed another more comprehensive agreement and action strategy that included signatory program through the management of BMC. The program provides for watershed management through cooperation and based on existing jurisdictional authority.



Regional Information Center

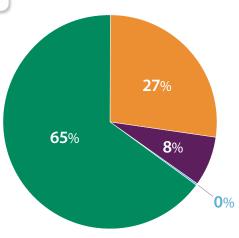
The Regional Information Center (RIC) is a library operated as a partnership between BMC and the Enoch Pratt Free Library system of Baltimore City. The RIC's collection focuses on the Baltimore region and urban planning materials, with strengths in local demographic information, economic development, transportation planning, land use and environmental issues. The RIC supports the work of the BMC staff and answers questions from colleagues, academic researchers and the public.

The RIC also works to develop the online availability of BMC information, and in June 2014 led the redesign project for the website, www.baltometro.org. In addition to a new visual style, the redesign involved a reorganization of the content on the website and the addition of a document management system for organizing BMC publications and committee documents. BMC continues to make updates to its online content, such as the addition of a number of interactive maps, since the debut of the new website.





Fiscal Year 2014 Financials

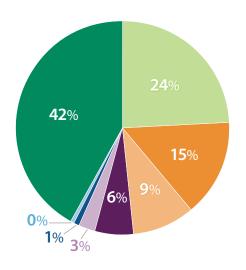




27% Regional Planning Grant \$2,450,314

 $8\% \begin{array}{l} \text{City/County Dues and} \\ \text{Payments} \end{array}$ \$665,511

O% Self Generated Revenue \$10,000



$42\% \begin{array}{l} \textit{Personnel and Related} \\ \$3,721,480 \end{array}$

24% Regional Planning Grant \$2,151,514

15% Pass Through \$1,288,864

9% Business Expenses \$838,700

 $6\% \begin{array}{l} \text{Utilities, Rent and Upkeep} \\ \$526,000 \end{array}$

3% Supplies and Equipment \$224,000

1% Ride Share \$80,000

O% Project Initiatives \$25,000

Revenue \$8,950,113

Expenses \$8,855,558





BMC Board of Directors 2014



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Public Communication

BMC is an organization that wears many different hats—from transportation planning to reservoir protection, cooperative purchasing, emergency preparedness, transit and commuting options, and bringing together a plan for housing, transportation and workforce development. Some of these programs and initiatives are done in-house, while many of them are regional partnerships. In short, BMC is a hub of regional coordination, a resource for the region.

In 2014, BMC launched a strategic plan to strengthen communication initiatives and create solid brand development. The BMC family works hard to serve the region, and wants to share its initiatives with the public.

Staff members worked with members of the press, broadcast and radio news organizations throughout the region to highlight BMC educational campaigns and provide expertise for newsworthy

stories that pertained to the Baltimore region. BMC, the BRTB, Opportunity Collaborative and partnering organizations were featured in the *Baltimore Sun, Annapolis Capital Gazette, Baltimore Business Journal* and on WYPR, Baltimore's National Public Radio station, among others.

Likewise, BMC revamped many of its communications and marketing materials—including the annual report, brochures, website content, press releases and posters—to breathe new life into an organization that does so much for the region. Many of the materials that received a face lift appeared at the Maryland Association of Counties (MACO) summer conference and at various outreach events.

A major part of reinvigorating BMC's brand through communication was enhancing its social media presence. Staff members used social media—par-

Building public familiarity with BMC, the BRTB, Opportunity Collaborative and partnering organizations

ticularly Twitter, Facebook, Infogr.am, e-newsletters, LinkedIn and YouTube—to create messaging about BMC initiatives in digestible and engaging ways. The public responded overwhelmingly well to this engagement, too. BMC increased followers from approximately 10,000 in 2013 to more than 13,000 in 2014.

Find us on:



bit.ly/baltometro-social

www.linkedin.com/company/baltimore-metropolitan-council

Follow BMC on Twitter: @BaltoMetroCo @Bike2WorkCentMD @Bmoreinvolved @Maximize2040 @OpportunityColl





