

Moving One Region Forward

One Region Forward (1RF) is a collaborative regional planning initiative focused on promoting more sustainable forms of development in Erie and Niagara counties. An early milestone for this initiative was the development and adoption in 2015 of the region's first federally recognized Regional Plan for Sustainable Development, One Region Forward: A New Way to Plan for Buffalo

The original One Region Forward plan was organized around five broad categories for sustainability planning and action, known as the 5 Big Ideas, each of which included a number of data indicators designed to help track

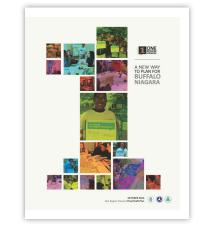
Niagara.

progress over time toward regional goals. In 2018, the indicators were updated in the first One Region Forward Report Card.

This report provides the next round of updates of the One Region

This report card can also guide a new chapter of One Region Forward. In 2023, the Buffalo Niagara region received a planning grant through the US EPA's Climate Pollution Reduction Grant. This program, known locally as One Region for **Climate Action**. is focused on identifying and developing actions to significantly reduce the region's greenhouse gas emissions. The effort will culminate in a Comprehensive Climate Action Plan for Buffalo Niagara to be released in late 2025.

These ongoing efforts have been guided by the 1RF Implementation **Council**. The Implementation Council was established as a collaborative, informal body to continue the work of 1RF and has met quarterly since 2015.



Forward indicators using the most current data available. As we approach the ten year anniversary of One Region Forward, this snapshot shows the progress we have made over the past decade toward 1RF's 5 Big Ideas and points to where we need to focus our efforts going forward.

1RF IMPLEMENTATION COUNCIL MEMBERS

Greater Buffalo Niagara Regional Transportation Council (co-chair)

University at Buffalo Regional Institute (co-chair)

City of Buffalo

City of Niagara Falls

Niagara County Department of **Economic Development**

Erie County Department of **Environment and Planning**

Niagara Frontier Transportation Authority

Buffalo Niagara Waterkeeper

University at Buffalo Office of Sustainability

New York State Department of Transportation

Buffalo Niagara Partnership

LISC NY

Recommended Citation: University at Buffalo Regional Institute, State University of New York at Buffalo, School of Architecture and Planning, 2025. "One Region Forward Report Card 2025."

In 2015, One Region Forward: A New Way to Plan for Buffalo Niagara, established 5 Big Ideas for regional sustainability.



One Region Forward Report Cards measure key indicators to track progress on the 5 Big Ideas. The first was released in 2018.



This 2025 Report Card can guide our next chapter—One Region for Climate Action.



About the **Indicators**

This report card measures Buffalo Niagara's progress on the indicators included in One Region Forward's Regional Plan for Sustainable Development, A New Way to Plan for Buffalo Niagara (2015, pgs. 117-125) between 2015 and 2025. Collectively, these metrics help gauge if the region is making progress towards the community-shaped vision outlined in the

These indicators measure performance for the Buffalo Niagara metropolitan region as a whole. Though progress on many of the metrics are driven by actions at the local level, looking at what the data says about regional performance offers an objective way for us to continue the conversation about the future we seek to create for Buffalo Niagara.

The numbers are not the only way to measure progress, and moving the needle on many of the indicators may take years, if not decades. But as we continue to build a sustainable, resilient, prosperous and opportunityrich future, a periodic review of the data helps identify areas of success—as well as remaining challenges—in order to help focus efforts going forward.

Reading the Indicators

Across the 20 indicators, an updated metric is presented in comparison to what was measured previously in the 2015 and 2018 reports.

When the data shows an indicator is moving in the right direction, a green circle is provided above the figure. For indicators moving in the wrong direction, a gray circle is shown. The table at right summarizes data trends between the 2015, 2018, and 2025 reports.

MAKING **PROGRESS**

PROGRESS TO BE MADE



Because there is always a story behind the data, we've provided more detail and context about nuances to the data, or what might be driving the trend for each metric.

For details on methods and data sources, see Data Sources and Notes.

* Overall change represents the average of two separate figures measured under each of these indicators. See following pages for more details.

For indicators that represent a percentage, change is

SUMMARY OF FINDINGS	WHERE WE WANT TO GO	CHANGE COMPARED TO BASELINE	
Land Use and Development			
Are we concentrating new development where we already have infrastructure?	1		-4.1 Pct Pts
Are we focusing job growth around our main streets, downtowns and former industrial areas?	1	1	+0.6 Pct Pts
Are we conserving natural, open spaces?	1	1	+6.4%
Are we increasing public access to our waterfronts?	1	1	+11.1%
Is our regional economy becoming more competitive?	1	1	+7.0%
Are we keeping the finances of local governments in balance?	1	1	+4.8 Pct Pts
Transportation and Mobility			
Are we reducing the miles we travel in cars?	\	1	+8.2%
Are more workers commuting via alternative modes of transportation?	1	1	+0.06 Pct Pts
Are we building new homes and job centers that are connected by public transit?	1	1	+0.2%*
Are we becoming more bike-friendly?	1	1	+47.7%
Housing and Neighborhoods			
Are we reducing the number of vacant homes and businesses in our region?	4	1	+7.0%*
Is the new housing we build walkable to services and amenities?	1		-1.7 Pct Pts
Are we less burdened by the costs of housing and transportation?	4	U	-6.0 Pct Pts
Are we reducing concentrated poverty?	4	U	-1.6 Pct Pts
Food Access and Justice			
Are we preserving our farmland?	1	1	+2.2%
Are we growing our agricultural economy?	1	1	+11.5%
Are we reducing barriers to access healthy food for those most in need?	1	U	-7.6%
Climate Change Action			
Are we conserving energy in our buildings?	1	1	+86.5%
Are we increasing generation of renewable energy?	1	1	+13.5 Pct Pts
Are we planning for climate change?	1	1	+167%

Land Use and Development

Recent trends show that regional land use patterns are slow to change. Since 2010, Buffalo Niagara experienced a long stretch of economic growth that spurred new development in existing communities, downtowns, main streets, and former industrial areas. While this development stalled due to the pandemic, the region continues to increase public access to our waterways and to conserve open space. However, most residential development still occurs in areas that require new infrastructure. Although these trends are slowing, sprawling development continues to add costs to local government budgets and present challenges for the revitalization of our urban core and existing communities.



Are we concentrating new development where we already have infrastructure?

•••••

% of all developed land within the urbanized area

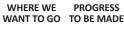
and serviced by a sewer district

We'll be making progress if we increase the share of development serviced by existing infrastructure

2011 2016 2024

32.0% 27.8% 27.9%

BEHIND THE NUMBERS







ERCENTAGE POINT

om 2011 to 2024

DECREASE









•••••

Are we focusing job

growth around our main

streets, downtowns and

former industrial areas?







We'll be making progress if we **increase** the conserved open





MAKING

WHERE WE

WANT TO GO

•••••

Square miles of open space conserved from

Are we conserving

natural, open spaces?

% of all regional jobs in downtowns, Brownfield Opportunity Areas, or near main streets

2011 2015 2021 26.1% 27.1% 26.7%

om 2011 to 2021

+0.6 ERCENTAGE POINT

2016 2024 110.9 111.6 118.0

MORE SQUARE MILES om 2011 to 2024

Since 2016, over 7,200 structures were built on vacant lots. While most (59%) new structures are within urbanized areas, those built further out consume more land. Newly developed lots totaled 30,300 acres, and just 29% (8,711 acres) were in the 2010 urbanized area. This indicator improved incrementally since 2016 (+0.1 percentage point), but remains down from 2011. However, this percentage is based on land area and does not include the reuse of vacant buildings in urban areas.

BEHIND THE NUMBERS

From 2011 to 2021, downtowns, main streets and former industrial areas saw more job growth (+5%) than elsewhere in the region (+3%). Compared to 2015, the share of regional jobs in these areas is down slightly (-0.4 percentage points). However, the most recent data is from 2021 and the types of businesses more common in walkable areas, like restaurants and retail, were relatively harder hit by the pandemic.¹ The region is investing in projects and programs to bring jobs back to key corridors.

BEHIND THE NUMBERS

The area of land protected from development increased by over 6% since 2011. This includes public parks, nature preserves, state wetlands, and lands legally protected, such as conservation easements. New conserved lands include the Owens Falls Sanctuary in Aurora and the West River Parkway on Grand Island. This work has been led by organizations like the WNY Land Conservancy, the Niagara River Land Trust, and the Nature Conservancy.



Are we increasing public access to our waterfronts?

We'll be making progress if we **increase** the amount of shoreline with

public access

WHERE WE MAKING WANT TO GO



Linear miles of shoreline with public access



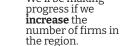
+10.8

MORE

LINEAR MILES

om 2011 to 2024





WHERE WE We'll be making WANT TO GO

•••••

2023

29,222 30,105

Is our regional economy

becoming more

competitive?

MORE

rom 2013 to 2023

We'll be making progress if our total governmental revenues and costs are in halance

WHERE WE WANT TO GO

•••••

Are we keeping the

finances of local

governments in balance?





MAKING

Number of firms located in the region Total revenues compared to total costs for all local

> 2012 2015 2022 +1.1% +0.6% +5.9%

+4.8 ERCENTAGE POINT rom 2012 to 2022

BEHIND THE NUMBERS

2011 2016 2024

104.8 108.4

Since 2011, over ten miles of local shoreline opened to the public. Recent progress includes the conversion of the Niagara Scenic Parkway, additions to the Erie Canalway Trail and the new West River Parkway on Grand Island which added over four miles of public access. Public waterfront amenities are aging, and will require ongoing maintenance, including wayfinding, recreational opportunities to continue to enhance the quality of public waterfront access in the region.

BEHIND THE NUMBERS

2016

From 2013 to 2023, the number of firms in the region increased by 7% while employment grew by 0.4%. The region saw a decade of job growth stalled by the pandemic, and has yet to recover to pre-COVID employment levels. As of 2023, jobs are down by 3% since peaking in 2019, while firms are up by 2.8% over that time. Regional job growth is limited by a shrinking labor force. Positive economic signs include a 48% increase in average wages, which outpaced inflation (+32%).

BEHIND THE NUMBERS

From 2012 to 2022, local government revenues grew 31% to \$6.1 billion, outpacing growth in spending (+28%). Revenues exceeded expenditures in 51 of the region's 65 local governments, compared to 41 in 2012. Contributors to this trend include increases in federal and state aid, property and sales taxes, fees and other revenue sources. Compared to 2012, local government debt is down by 13% while spending on health, recreation and community services is up by 37%.

Transportation and Mobility

Mobility is key to sustainability. We need a variety of convenient, accessible transportation options to get around the region without an automobile. Our region continues enhancing our bicycle network by adding bike lanes, expanding bike sharing, and embracing e-bikes. Communities are shifting focus to multi-modal transportation, adopting bicycle plans and complete streets policies to make roads safer for all users. Even with progress, trends show it takes time for a region to transition from personal automobiles to alternative modes. Promoting walkability and a wellconnected multi-modal transportation network can also benefit our economy and quality of life.



Are we reducing the miles we travel in cars?



Are more workers commuting via alternative modes of transportation?

We'll be making progress if we **decrease** the daily miles we travel by car.

WHERE WE PROGRESS WANT TO GO TO BE MADE





••••• Daily vehicle miles traveled (VMT) per person

2011 2022 2016 19.5 19.8 18.3

MORE DAILY **VEHICLE MILES** TRAVELED from 2011 to 2022 We'll be making progress if we **increase** the share of workers commuting via alternative modes of transportation.



MAKING **PROGRESS**





% of workers commuting by alternative modes of transportation

	2011	2015	2023
ALTERNATIVE MODES	15.7%	14.4%	15.8%
WORK FROM HOME	2.3%	2.9%	10.9%

+0.06+8.6 PERCENTAGE POINT from 2010 to 2023

BEHIND THE NUMBERS

Despite an increase in remote work, vehicle travel is up. Overall, automobiles travel on our roadways a bit more than 2016, and for reasons other than getting to work. Trends like the growth of online retail deliveries can impact VMT. Since 2016, daily vehicle miles traveled per person increased slightly, from 19.5 to 19.8 miles in 2022. But our cars are more efficient, so greenhouse gas emissions from vehicles are down slightly since 2011.² There were 120 electric vehicles in the region then, but as of 2024 there are 11,600.³ Supporting the transition to electric vehicles with incentives and charging stations can reduce the environmental impact of driving in the region. Walkable neighborhoods and multi-modal transportation options can shift mobility choices and limit vehicle travel.

BEHIND THE NUMBERS

Since 2010, the use of alternative commute modes grew slightly overall while remote working increased significantly. In 2010, just 2% of workers worked at home, growing to nearly 11% in 2023. Workers are more likely to carpool and less likely to drive alone—about 10,200 fewer workers drive alone, but 10,700 more are carpooling (+28%) than in 2010. The number of people commuting by public transportation declined by 19% from 2010 to 2023 and commuting by walking is also down by 12%. However, commuting by bicycle is up by 82%—nearly 2,800 workers biked to work in 2023. This trend is supported by the expansion of the region's bike network. Future projects can promote alternative transportation modes, like the Metro Rail extension to University at Buffalo's North Campus.



Are we building new homes and job centers that are connected by public transit?

MAKING WANT TO GO



WHERE WE



..... % of the region's homes and jobs within areas accessible to transit stops with frequent service

We'll be making progress if we

increase the share of homes

and jobs accessible to transit.

	2011	2015	2022	
HOMES	26%	25%	27%	+0.6
IOBS	32%	31%	31%	-0.2
				PERCENTAGE POINT CHANGE from 2011 to 2022

BEHIND THE NUMBERS

After declining from 2011 to 2015, the percentage of homes in areas within walking distance of frequent public transit service increased by about two percentage points to 27% in 2022. This is partly due to increased residential density in Buffalo's central business district and the city's East Side.⁴ However, the proportion of new jobs within walking distance of transit stops remained stagnant since 2015. The region saw a strong period of job growth before the pandemic, but most of these new jobs were located beyond walking distance of a transit stop with frequent service. Also, the region has been slower to recover jobs lost during the pandemic compared to the US overall.⁵



Are we becoming more bike-friendly?

We'll be making progress if we **increase** the amount of

WHERE WE WANT TO GO





MAKING

PROGRESS

Number of linear miles of dedicated bike paths, shared bike lanes and multi-use/recreational trails

2016 2024 2014 298 431 440



BEHIND THE NUMBERS

The region expanded its network of bicycle infrastructure significantly over the last decade as the combined length of dedicated bike paths, bike lanes, and multi-use recreational trails grew by 142 miles (+48%). Initiatives like the 2020 Bike Buffalo Niagara Regional Bicycle Master Plan, and organizations such as GObike Buffalo, helped create more bike-friendly communities across the region. The rapid growth in bike infrastructure is also due to key projects, such as the conversion of the Robert Moses Parkway to the multi-modal Niagara Scenic Parkway and the completion of the Shoreline Trail in the Tonawandas. Maintaining these newly built bike routes will be increasingly important to ensure residents have access to a robust, high-quality regional bicycle network.

Housing and Neighborhoods

Quality homes and high-opportunity neighborhoods are key to our sustainability, health, and economy. Over the past decade, the region made significant strides to enhance existing neighborhoods. By making investments to revitalize vacant buildings in disinvested communities, we added a variety of residential and commercial spaces to distressed neighborhoods like our urban core. Concentrated poverty declined, and households are less likely to be burdened by housing and transportation costs. However, many neighborhoods are still held back by disinvestment, vacant buildings, and limited job access. Ongoing initiatives to address these issues include programs to build community capacity for neighborhood change.



Are we reducing the number of vacant homes and businesses in our region?

We'll be making progress if we **decrease** the number of vacant residential and commercial properties.

WHERE WE PROGRESS WANT TO GO TO BE MADE





••••• Number of residential and commercial vacancies

2013 2023 2016 24.548 25,404 COMMERCIAL 5.796 5,875 6,270

+6% +8% **INCREASE** m 2013 to 2023



Is the housing we build walkable to services and amenities?

We'll be making progress if we **increase** the share of homes in walkable places.

WHERE WE PROGRESS WANT TO GO TO BE MADE





............. % of homes within walking distance to a main street, downtown or transit corridor

2010

2016

2024 44.7% 43.3%

-1.7PERCENTAGE POINT DECREASE

BEHIND THE NUMBERS

Vacancy continues to rise across the region. The number of addresses deemed "undeliverable" by the US Postal Service increased notably from 2013 to 2023, for both commercial and residential addresses. Commercial vacancy increased by 8% since 2013. This was exacerbated by the pandemic, with more office spaces left vacant as employers adjust to the rise of remote work. Most vacant building spaces have been vacant for at least three years, including 73% of vacant commercial addresses and 59% of vacant residential units. Although rehabilitation of long-term vacant structures can be complicated, and while demolition and reuse of older buildings progressed over the past decade, there are still extensive opportunities to revitalize vacant buildings in the region.

BEHIND THE NUMBERS

Of the nearly 7,300 new homes built in the region since 2010, just 926, or about 13%, have been built within walking distance to a main street, downtown, or transit corridor. This points to movement in the right direction, as the share of new homes within these walkable areas was 10% from 2010 to 2016, and just 7% during the 2000s. But since the majority of homes are still built on larger, open lots in suburban and rural areas, the percentage of homes near downtowns, main streets and transit corridors continued to decline overall. However, this metric is based on newly constructed homes and does not include any new housing units created through rehabilitation of older structures in downtowns and other walkable places.



Are we less burdened by the costs of housing and transportation?

We'll be making progress if we **decrease** the share of WHERE WE WANT TO GO household income spent on housing and transportation.



MAKING

PROGRESS



% of household income spent on housing and transportation costs

2014 2017 53%

48%

2024 -6.0 47% PERCENTAGE POINT DECREASE from 2014 to 2024



Are we reducing concentrated poverty?

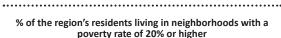
We'll be making progress if we **decrease** the share of residents living in neighborhoods with concentrated poverty.

WHERE WE WANT TO GO

MAKING PROGRESS







2023

2012

2016

23.8% 24.8% 22.2%

PERCENTAGE POINT DECREASE from 2012 to 2023

BEHIND THE NUMBERS

The median household in the region spends about 24.2% of income on housing and another 22.5% on transportation. That works out to 47% of total income spent on housing and transportation, leaving more than half of income for other expenses. This is only a small change from 2017, but represents a significant improvement compared to 2014 when 53% of income was devoted to housing and transportation for the median household in the region. This is largely because incomes grew more than housing and transportation costs over this time, but higher utilization of available tax incentives to reduce household expenses may be another factor behind these trends.

BEHIND THE NUMBERS

Poverty exists in every corner of our region, but it is highly concentrated in certain areas. Of all the Buffalo Niagara residents who live in poverty, over half (53%) live in a neighborhood of concentrated poverty, or census tracts where 20% or more of the population lives under the poverty line. Neighborhoods of concentrated poverty lie primarily in cities -particularly Buffalo, where 76% of the region's impoverished residents in areas of concentrated poverty reside. Another 10% live in Niagara Falls. Strategic investments to build community capacity and create wealth-building opportunities in neighborhoods of concentrated poverty can help combat systemic issues and provide equitable access to economic opportunties for all residents.

Food Access and Justice

Our ability to produce and access healthy foods is essential to regional sustainability. Farmland loss in Buffalo Niagara slowed down in recent decades, and over the last few years, we actually added agricultural land based on tax parcel data. In underserved areas across the region, community gardens and urban farms are boosting local food production, while healthy options like mobile pantries and farmers markets are increasingly active. More residents have access to healthy foods, but access is still limited in underserved areas where poverty and people of color are concentrated. Plans and policies that promote equitable food systems can have profound benefits on the region's public health, entrepreneurship, development, and environmental quality.



Are we dedicating land to farming?



Are we growing our agricultural economy?

We'll be making progress if we **increase** the amount of land dedicated to farming.

WHERE WE MAKING **PROGRESS** WANT TO GO





••••• Number of square miles of land dedicated to farming

319.3

2011 2024 2016

312.2 310.3

SQUARE MILES m 2011 to 2024 We'll be making progress if we **increase** wages for jobs in food production and manufacturing.



PROGRESS

MAKING





••••• Total annual wages for jobs in food production and manufacturing (in millions of dollars)

2013 \$384

2016

2023 \$428

MILLION MORE from 2013 to 2023

BEHIND THE NUMBERS

The latest parcel data shows a 2.3% increase in land classified as agricultural since 2011. This may be due to updated property tax assessment methods, as many lots previously unclassified, or listed as vacant or rural residential, are now classified as agricultural lands. According to the USDA's Agricultural Census however, farmland in Erie and Niagara counties declined by -7% from 2017 to 2022 after falling by -1% from 2012 to 2017.6 This metric does not capture all areas used for food production, only parcels classified as agricultural for tax assessment purposes. More urban farms, community gardens and other innovative growing operations have launched over the last few years, contributing to regional farmland growth.

BEHIND THE NUMBERS

Since 2013, the region's food production sector saw growth in total jobs, firms, and average wages. The sector showed year-over-year growth in jobs and average wages every year since 2017, even during the pandemic. From 2013 to 2023, jobs in the sector grew by 8%, or about twenty times the rate of the regional economy overall, which saw jobs grow by 0.4% over that time. The region also added 43 food production and manufacturing businesses over the past decade. Average wages in the food sector increased substantially (+36%), but less than the regional economy overall (+48%). The expansion of the industry added \$43.2 million more in total wages to the regional economy from 2013 to 2023, adjusting for inflation.



Are we reducing barriers to access healthy food for those most in need?

We'll be making progress if we **decrease** the number of households that cannot easily access a supermarket.

WHERE WE WANT TO GO PROGRESS





MAKING

••••• Number of households without a vehicle and beyond walking distance to a supermarket

2022

2011

2015

55,954 54,626 51,724

HOUSEHOLDS from 2011 to 2022

11

BEHIND THE NUMBERS

Buffalo Niagara has more healthy food options within walking distance of homes than in 2011. The region experienced a net increase of sixteen supermarkets that offer a wide variety of fresh foods over that time.⁷ Most new supermarkets are located in densely populated neighborhoods where households are less likely to have a vehicle, such as downtown Buffalo. Moreover, there are fewer households without a vehicle, declining by 7.5% from 2011 to 2022.8 The region also has more transportation options today, such as e-bikes and ride-sharing; more healthy food options, like healthy corner stores and mobile markets; and federal and state efforts to create more supermarkets in underserved areas, all of which can help improve access to healthy foods in the future.

Climate Change Action

The Buffalo Niagara region continues to accelerate progress towards sustainability through a variety of tangible climate actions. Virtually all of the energy generated in the region now comes from renewable sources, as we phase out fossil fuels like coal. Energy-efficient design and construction is the norm for both new-builds and retrofits. Further, more than a third of local governments across our region are pledging their commitment to climate action and integrating climate considerations into plans and policies. Though there is much more to do, indicators suggest that climate action remains a unique strength of Buffalo Niagara, which will only continue to grow.



Are we conserving energy in our buildings?



Are we increasing generation of renewable energy?

We'll be making progress if we **increase** the square footage of LEED-Certified

WHERE WE MAKING WANT TO GO PROGRESS



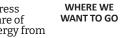


••••• Total square footage of LEED-Certified projects in the region (in

2024 2014 2017

7.35 6.11 MILLION SO.FT. from 2014 to 2024

We'll be making progress if we **increase** the share of locally-generated energy from renewable sources.



MAKING **PROGRESS**







% of all locally-generated energy that comes from renewable sources

2012

2016

2023 84.7% 92.7% 98.2% PERCENTAGE POIN **INCREASE** from 2012 to 2023

BEHIND THE NUMBERS

3.94

The total square footage of energy-efficient, LEED-certified building space grew by 86% from 2014 to 2024. The region completed 740 LEED activities from 2000 to 2016 and another 74 activities after 2016. The slowed growth in LEED activities is likely due to the pandemic's impacts on construction. From 2010 to 2019, LEED-certified square footage increased by an average of 16% each year, but since 2020, this average annual growth slowed to 2%. LEED activities cover a range of tangible actions to improve sustainability, including commercial interior buildouts, retrofits of existing buildings, new construction, and ongoing performance monitoring. Most LEED activities (65%) are building design/construction; 11% are for retrofits of existing buildings.

BEHIND THE NUMBERS

In 2023, 98.2% of all locally generated energy came from renewables like hydropower, biogas, wind, and solar. Hydropower at Niagara Falls accounts for the vast majority (97%) of all renewable energy in the region. The decommissioning of the region's last two coal-fired power plants, AES Somerset and Huntley in Tonawanda, marked a significant shift to clean energy. Meanwhile, energy from other renewables increased since 2016, including biogas (+8%), wind (+6%) and solar (+2000%). Moreover, this metric does not acount for small-scale renewable energy like rooftop solar. There are over 4,500 small-scale NYSERDA-supported solar sites in the region with capacity to generate over 485,000 MWh of electricty a year, enough to power about 21,000 homes.8



Are we planning for climate change?

We'll be making progress if we **increase** the number of Climate Smart Communities

WHERE WE MAKING WANT TO GO





••••• **Number of Climate Smart Communities in the region**

2024 2014 2017 11 24

MORE **COMMUNITIES** from 2014 to 2024

BEHIND THE NUMBERS

In Erie and Niagara counties, municipalities of all sizes are actively working to prepare for the impacts of climate change. As part of its commitment to the One Region Forward initiative, the UB Regional Institute is providing technical assistance to communities seeking to participate in NYS Climate Smart Communities (CSC) program. Since 2017, the number of communities that have pledged to the CSC program more than doubled. There are now 24 communities committed to advancing climate resilience in Buffalo Niagara. These communities are: Erie County; the cities of Buffalo, Niagara Falls, and North Tonawanda; the towns of Aurora, Evans, Grand Island, Amherst, Boston, Orchard Park, Brant, Eden, Hamburg, Porter, Lewiston, Royalton, and Somerset; and the villages of Hamburg, Lancaster, Williamsville, Angola, East Aurora, Orchard Park, and Springville.

Data Sources and Notes

Land Use and Development

Developed land within the urbanized area and serviced by a sewer district: UBRI analysis of parcel data (Erie County Dept. of Environment and Planning, 2012, 2016, 2023; Niagara County Dept. of Economic Development, 2011, 2016, 2024); Urbanized Land Area (U.S. Census Bureau, 2010); sewer district boundaries (various county and municipal sources, ca. 2013). This indicator represents the total proportion of all developed land area (parcels not classified as vacant, agricultural or environmentally-protected land)

that falls within urbanized areas and sewer districts.

Jobs in downtowns, Brownfield Opportunity Areas, or near main streets: UBRI analysis of data from the U.S. Census Bureau, Longitudinal Employment-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES), Workplace Area Characteristics, 2011, 2015, 2021; Brownfield Opportunity Areas (NYS Dept. of State, 2012); Downtowns (various sources, 2012); "Main Streets" Boundaries (defined by local stakeholders, 2012). Using GIS software, census block-level employment data was clipped to the shapes of Brownfield Opportunity Areas, downtowns, and within a ¼ mile buffer of main streets. The share of regional jobs within these areas was estimated by multiplying job density per block by the area of clipped blocks and dividing by the total number regional jobs.

Open space conserved from development: UBRI analysis of parcel data (Erie County Dept. of Environment and Planning, 2012, 2016, 2023; Niagara County Dept. of Economic Development, 2011, 2016, 2024); conserved lands (Western New York Land Conservancy, 2013, 2017; National Conservation Easement Database, 2012, 2017, 2024; US Geological Survey, National Gap Analysis Project, Protected Areas Database (PAD-US), 2016, 2024); public recreation lands (NYS Dept. of Environmental Conservation, New York State Public Land Boundaries) and wetlands (NYS Dept. of Environmental Conservation, Regulatory Wetlands Boundaries, 2012, 2017, 2024). Using GIS software, these datasets were combined and used to calculate the total area of conserved land. This indicator estimates the total area of land in the region with legal protections or formal restrictions from being developed. This includes all land parcels classified as a public park, conservation area, wildlife preservation, or other protected natural area with development restrictions, in addition to land held in conservation easements and wetlands regulated by New York State. The figure excludes land within the adjacent Tuscarora, Tonawanda and Cattaraugus nations. The baseline 2015 report measure was adjusted to fit this new definition.

Shoreline with public access: UBRI analysis of parcel data (Erie County Dept. of Environment and Planning, 2012, 2016, 2023; Niagara County Dept. of Economic Development, 2011, 2016, 2024); bike lanes and multi-use trails (Greater Buffalo Niagara Regional Transportation Council (GBNRTC), 2014, 2017, 2024); and U.S. Geological Survey, National Hydrography Dataset (2024). Using GIS software, all public open spaces, marinas and protected lands were selected from parcel data by property class code. Those intersecting any major water body (listed on NYS Dept. of State's "List of Coastal Waterbodies and Designated Inland Waterways," 2012) were identified, and the total length of waterways along these parcels was calculated. Dedicated bike lanes and multi-use/recreational trails (from GBNRTC, 2014, 2017 and 2024) along these water bodies were added to the calculation of publicly accessible shorelines. Final results were inspected and edited using satellite imagery.

Firms: NYS Dept. of Labor, Quarterly Census of Employment and Wages (Annual Averages 2013, 2016, 2023). Represents the total number of business establishments in the region. For firms operating at more than one location, each individual site is counted, unless payrolls are jointly maintained.

Total revenues compared to total costs for all local governments: UBRI analysis of NYS Office of the State Comptroller, Local Government Financial Data for Fiscal Year 2011 and Fiscal Year 2015 (2012, 2016, 2023). This indicator represents total expenditures (including debt payments and other uses) for all municipal and county governments divided by total revenues (including state and federal aid) for all local governments. Negative values are used when costs exceed revenues. This data source is updated on a quarterly basis for five years after initial release. The baseline number has been adjusted based on updated data, and future indicator updates should adjust figures for previous years.

Transportation and Mobility

Daily vehicle miles traveled per person: UBRI analysis of Vehicle Miles Traveled (VMT) data from NYS Department of Transportation and Greater Buffalo Niagara Regional Transportation Council (2011, 2016, 2022) and U.S. Census Bureau, American Community Survey 1-Year Estimates (2011, 2016). This indicator represents the total regional vehicle miles traveled divided by the total population.

Workers commuting via alternative modes of transportation: U.S. Census Bureau, American Community Survey 1-Year Estimates, "Means of Transportation to Work for Workers 16 Years and Over" (2010, 2016, 2023). Alternative modes include carpooling, public transportation, motorcycling,

biking, walking, other means, and working from home.

Homes and jobs within areas accessible to transit stops with frequent service: UBRI analysis of parcel data (Erie County Dept. of Environment and Planning, 2012, 2016, 2023; Niagara County Dept. of Economic Development, 2011, 2016, 2024); employment data (U.S. Census Bureau, LEHD Origin-Destination Employment Statistics (LODES), Workplace Area Characteristics, 2011, 2015, 2021); housing data (U.S. Census Bureau, Population and Housing Unit Counts by Block, 2010 and 2020; Bus and Metro Rail Stops (Niagara Frontier Transportation Authority, 2012). Using GIS software, areas within ½ mile of a NFTA Bus or Metro Rail stop with frequent service (where average waits between bus arrivals is 15 minutes or less during peak weekday travel hours of 6-9am and 3-6pm, based on 2012 service) were delineated. The % of the region's residents and jobs within these areas was estimated using GIS data on population and jobs at the census block level. Housing data was limited to the extent of areas classified as residential by parcel data before calculating the housing density (units per acre) for each census block. Similarly, block-level employment data was limited to non-residential areas (using parcel data) before calculating job density per block. The % of each census block that fell within one half-mile of NFTA Bus or Metro Rail stops with frequent service was multiplied by the calculated housing and job densities to estimate the number of people and jobs in areas accessible to transit stops with frequent service. The baseline 2015 number was misreported in the 2018 report card and updated here.

Dedicated bike paths, shared bike lanes and multi-use/recreational trails: UBRI analysis of data from Greater Buffalo Niagara Regional Transportation Council (2014, 2017, 2024). This indicator represents the length, in miles, of all dedicated bike lanes, shared bike paths and multi-use/recreational trails, calculated using GIS software. Data on bike lanes, paths and trails used for the baseline calculation were improved and updated from the 2015 report.

Housing and Neighborhoods

Residential and commercial vacancies: U.S. Dept. of Housing and Urban Development, U.S. Postal Service Vacancy Data (2013, 2016, 2023). This indicator represents the total number of residential and commercial addresses determined "undeliverable" for 90 days or longer by the U.S.P.S. Data are for the final quarter of each year.

Homes within walking distance to a main street, downtown or transit corridor: UBRI analysis of parcel data (Erie County Dept. of Environment and Planning, 2012, 2016, 2023; Niagara County Dept. of Economic Development, 2012, 2016, 2024); address points (NYS GIS Program Office, Street and Address Maintenance Program, 2012, 2017, 2024); employment data (U.S. Census Bureau, LEHD Origin-Destination Employment Statistics (LODES), 2011, 2015, 2021); housing data (U.S. Census Bureau, Housing Unit Counts by Block, 2010, 2020); Downtowns (various sources, 2012); "Main Streets" (local stakeholders, 2012); transit stops (Niagara Frontier Transportation Authority, 2012). This indicator represents the % of homes located within ½ mile of walkable communities (or areas with more than 8 housing units per acre and 2 jobs per acre), downtowns, main streets and transit stops with frequent service (where average waits between bus arrivals is 15 minutes or less during peak weekday travel hours of 6-9am and 3-6pm, based on 2012 service). Residential parcels were selected by property class codes and year built. Address points within these parcels were selected and used to find the total number of homes within the designated areas. The baseline number was updated based on new methods.

Household income spent on housing and transportation costs: U.S. Dept. of Housing and Urban Development and U.S. Dept. of Transportation, Location Affordability Index (2014); Center for Neighborhood Technology (CNT), Housing and Transportation Affordability Index (2015, 2024). Represents the share of the regional median household income spent on housing and transportation costs, according to CNT's Housing and Transportation Affordability Index.

Residents living in neighborhoods with concentrated poverty: UBRI analysis of data from U.S. Census Bureau, American Community Survey 5-Year Estimates, "Ratio of Income to Poverty Level" (2012, 2016, and 2023). This indicator estimates the share of the region's population living in areas of concentrated poverty by dividing the total population of all census tracts in the region with a poverty rate of 20% or more by the regional population.

Food Access and Justice

Land dedicated to farming: UBRI analysis of Parcel Data (Erie County Dept. of Environment and Planning, 2012, 2017, 2023; Niagara County Dept. of Economic Development, 2011, 2016, 2024). GIS software, was used to sum the total land area of all parcels classified as agricultural for tax purposes. The baseline number in the 2015 plan was updated.

Total wages for jobs in food production and manufacturing: UBRI analysis of data from NYS Dept. of Labor, Quarterly Census of Employment and Wages (Annual Averages 2013, 2016). The baseline number reported in the 2015 plan was adjusted for inflation from 2013 to 2016 U.S. dollars using the U.S. Bureau of Labor Statistics Consumer Price Index (CPI) Inflation Calculator. This indicator represents total wages of all jobs covered by unemployment insurance in these sectors: "Crop Production" (NAICS 111), "Animal Production" (NAICS 112), and "Food Manufacturing" (NAICS 311).

Households without a vehicle and beyond walking distance to a supermarket: UBRI analysis of data from ReferenceUSA, U.S. Businesses Database (2012, 2016); U.S. Census Bureau, American Community Survey 5-Year Estimates (2007-2011, 2011-2015); and parcel data (Erie County, 2012, 2016; Niagara County, 2011, 2016). Supermarkets and grocery stores were identified from ReferenceUSA by NAICS

code and employment level (50 or more). Census data was limited to residential areas (using parcel data) before calculating the per-acre density of no-vehicle households for each block group. Densities were multiplied by the % of each block group that fell beyond 0.4 miles walk of a supermarket (using ArcGIS Network Analyst) to estimate the number of households without a vehicle and beyond walking distance to a supermarket.

Climate Change Action

LEED-Certified projects: U.S. Green Building Council, Green Building Information Gateway (2014, 2017, 2024). This indicator represents the total square footage of all LEED-Certified activities, including commercial interior build-outs, building retrofits, new green construction, engagement in an ongoing performance monitoring program, and other tangible actions and commitments to sustainability.

Locally-generated energy from renewable sources: UBRI analysis of data from U.S. Dept. of Energy, Energy Information Administration (2012, 2016). This indicator represents total energy production from renewable sources (wind, solar, biomass, geothermal and hydroelectric) for all commercial energy providers divided by region's total energy production.

Climate Smart Communities: NYS Dept. of Environmental Conservation, List of Climate Smart Communities (2014, 2017, 2024). Represents the number of municipalities and counties that have passed the New York State Climate Smart Communities Pledge as a municipal resolution.

FOOTNOTES

Footnotes are provided for all references that are not derived from the indicator data sources described above.

- 1. NYS Department of Labor, Quarterly Census of Employment and Wages, Annual Averages, 2019-2021.
- 2. UBRI, 2024 Regional Greenhouse Gas Inventory for Buffalo Niagara. See forthcoming Comprehensive Climate Action Plan, 2025. Methods adapted from the NYSERDA's New York Community and Regional GHG Inventory Guidance (2015), available at https://climatesmart.ny.gov/fileadmin/csc/documents/GHG_Inventories/ghgguide.pdf; Ecology and Environment, WNY Regional Greenhouse Gas Inventory, 2011.
- 3. NYS Energy Research and Development Authority, Electric Vehicle (EV) and EV Charging Station Data, 2024. Accessed November, 2024 at www. nyserda.ny.gov/All-Programs/Drive-Clean-Rebate-For-Electric-Cars-Program/Rebate-Data/Map-of-EV-Registrations
- 4. US Census Bureau, American Community Survey, 5-year estimates, 2015 and 2022
- 5. US Bureau of Labor Statistics; NYS Department of Labor, Quarterly Census of Employment and Wages, 2019-2023.
- 6. US Department of Agriculture, National Agricultural Statistical Service, Agricultural Census, 2022.
- 7. Data Axle, Reference USA Business Database, 2016 and 2024.
- 8. US Census Bureau, American Community Survey, 5-year estimates, 2022
- 9. NYSERDA, "Solar Electric Programs Reported by NYSERDA: Beginning 2000," 2024. Accessed July, 2024 at www.nyserda.ny.gov/All-Programs/NY-Sun/Solar-Data-Maps/NYSERDA-Supported-Solar-Projects; US Environmental Protection Agency, Greenhouse Gas Equivalencies Calculator, Nov. 2024.



Change takes time, and the numbers only tells us so much

Progress, especially on a regional scale, takes time, and the bigger picture of regional progress is more nuanced than can be represented in a single update or by a set of numbers. Although there is no single measurement that can capture the full essence of progress in the region, indicators gauge collective regional trends resulting from strategies and implementations enacted in the last several years.

While there is value in understanding trends, numbers do not tell us the whole story of progress. Programs or policies that support the vision of One Region Forward may have been implemented since 2015, but data may not reflect the impacts of those decisions. These actions still constitute progress, even if their effects have yet to be measured.



Measuring the region's progress moving forward

As the region evolves, data sources are also likely to change; some data may become obsolete or unavailable, while new data provide fresh insights into our region. Future report cards must remain flexible, reflecting these shifts. Indicators that cannot be updated due to changing data availability may be removed, while new indicators may be added to coincide with changing priorities or novel data sources. Future report cards may not occur annually, since change often takes longer than a year to show noticeable affects reflected in data, and data sources do not always update on an annual cycle.



Encouraging progress through strategies and local actions

The One Region Forward plan offers dozens of strategies and actions that can drive progress across these indicators. Developed by +100 stakeholders and subject matter experts from across Buffalo Niagara, these recommendations can be taken on by various regional actors – city, town, village, and county governments; local nonprofits; community partnerships; and even local citizens. As we reflect on our region's progress across these indicators, it is also important that we reflect on these recommendations to identify how we can continue to make investments and decisions that advance the values of One Region Forward.



oneregionforward.org

One Region Forward is supported by an information rich, interactive website. A tool unto itself, the site documents and facilitates the broad base of community engagement and learning for the initiative, features best practices locally and from around the world, catalogs tools and resources for implementation, offers online mapping resources, and shows how citizens, communities, businesses, and others from across Buffalo Niagara are defining sustainability for the region.

One Region Forward was launched as part of the Partnership for Sustainable Communities, a Federal interagency initiative between the U.S. Department of Housing and Urban Development, U.S. Department of Transportation, and the U.S. Environmental Protection Agency.

This report card and the analysis within was produced by the University at Buffalo Regional Institute, with support from the UB School of Architecture and Planning.