



MON VALLEY COMMUNITY PROJECT ANALYSIS

*Stephanie Ho, Henri Neblina, Riya Malhotra,
and Carina Martin*

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PROJECT SUMMARY

The goal of this project is to synthesize information gathered from a range of sources - including the Allegheny County Need Index, existing project scopes, county-level databases, map, and demographic data - to inform project documentation for the Mon Valley Innovation District Community Benefits Plan (CBP) and other funding initiatives. These projects are united by a shared goal of leveraging multiple investments, inclusive of public works, manufacturing, and solutions an equitable economy, to revitalize several of the Mon Valley's most economically and environmentally marginalized communities.

The project focused on compiling community need data and documenting project objectives for four community investment initiatives led by Main ST, identified as priority projects:

1. Mon Valley Enterprise Zone
2. Braddock Business Community Initiative
3. Blight Properties
4. Microgrid Project

Our overall recommendations and next steps for these projects are to:

- Prioritize alignment, data, and resource sharing across local partners and organizations to eliminate redundancies and maximize impact
- Consider investments in primary data collection initiatives (community surveys, walk audits, and expansion of property assessment work), including efforts to centralize resources of data
- Engage with municipal authorities to communicate the importance of quality data and consistent community engagement
- Apply to funding opportunities that align with these projects

The content and visualizations on pages 5-14 serve to establish the landscape and provide resources that can be used across the different project funding applications. The following report will then describe in detail the demographic and community needs, challenges and barriers for each project, the project description, possible outcomes and metrics, and individual project recommendations.

This analysis was compiled with valuable assistance from the following individuals:

Lorraine Rue | Executive Director, Main ST and Associates

Patricia M. DeMarco | Principal, Main ST and Associates

Tina Doose | Assistant Principal, Main ST and Associates | Founder and Board Chair, Mon Metro Chamber of Commerce

Lisa Franklin-Robinson | President, North Braddock Borough Council

Eric J. Raabe | Director of Infrastructure and Resilience, Congress of Neighboring Communities

Louis Tierno | Director, Pennsylvania and Appalachia Sustainable Business Networks

MON VALLEY COMMUNITIES BACKGROUND

For the purposes of the following analysis, the phrase “Mon Valley Communities” refers to the following eight communities, each of which has a unique history but is geographically, economically, and culturally linked to the others: Braddock, North Braddock, East Pittsburgh, Rankin, Turtle Creek, Forest Hills, Clairton, and Duquesne.

The Mon Valley region has experienced significant decline since its economic peak in the 1930s. In the 1960s, the steel and mining industries that had employed the majority of its workforce began to decline. Many residents migrated from the region in search of stable employment, and the resulting shrinkage led to reduction in tax revenues, property values, and municipal services and resources.

Since 1990, the Mon Valley population has decreased at a rate of approximately 1% per year. Manufacturing remains the largest employment sector in the region, tethering the Mon Valley to its industrial history. Residents continue to value hard work, self-sufficiency, and adaptability to new challenges.

The charts and maps on the following pages provide additional context into how the region has evolved in recent decades.

COMMUNITY INVOLVEMENT STATEMENT

When proposing projects to communities, environmental advocates and project planners should also understand that each community has their own way of prioritizing projects, and many do not have a set method of prioritization. If a municipality has

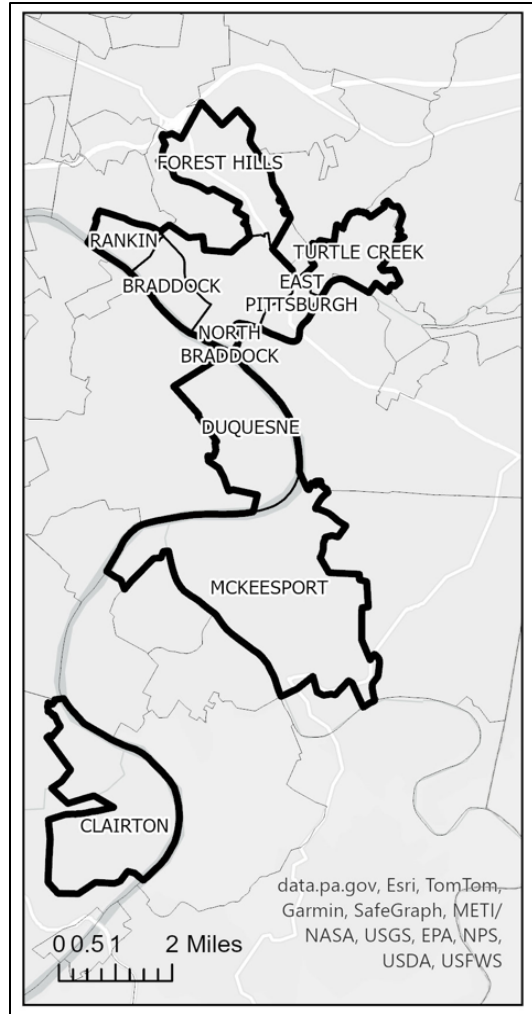


Figure 1 Mon Valley Communities

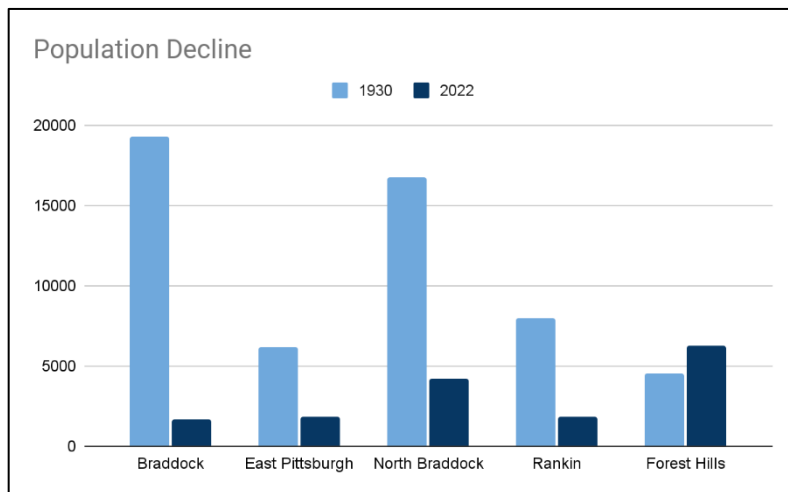


Figure 2 Population Decline in Mon Valley Communities

limited resources at its disposal, for example, then its residents may have different priorities than those with an outsider perspective.

Although some communities have active, well-funded resident groups that advocate for specific sustainability programs, most communities demand to see direct economic and quality-of-life improvements – or clear trailing benefits such as increased natural disaster resiliency or lower utility costs – in order to support such programs. Modest-cost, well-located projects with a compelling case for short- and long-term benefit continue to achieve the most consistent buy-in from community stakeholders.

Commercial interests are looking for shovel-ready projects and environmental advocacy groups are interested in future-focused infrastructure, while many Mon Valley families lack safe housing, local businesses have unreliable electricity access, and workers walk long distances to the nearest bus stop on a poorly maintained sidewalk. Residents have existing commitments to family, work, school, and community groups that often make it challenging to engage directly with the advocacy groups, property developers, prospective employers, and other external stakeholders that are proposing substantial changes to their communities. Meeting these basic needs – for good housing, safe transportation, and representation in the governance process – must precede the “higher-order” concerns of external stakeholders. At the same time, much of the lingo and terminology used by outside groups can be alienating and difficult for residents to fully understand.

Understanding what community members actually need and desire for their evolving neighborhoods is therefore a challenging but necessary element of any resiliency-focused project. During recent listening sessions (sponsored as part of the creation of a Community Business Agreement for Eos Energy Enterprises), local residents, advocates, company representatives, and business owners identified three main areas of need:

- **Housing:** Rather than simply “fixing up houses,” Mon Valley communities are interested in equipping local workers with the resources and skills needed to maintain the region’s housing stock. Mon Valley residents often have long, rich histories in the region - many families experienced redlining within the City of Pittsburgh limits or moved to the region for steel industry jobs - and are wary that gentrification could displace their neighbors if affordable housing options are not made available. Business owners also speak strongly against the establishment of transitory housing, which makes long-term hiring difficult and fails to establish a solid local consumer base. Communities are also interested in encouraging the return of tradable industries that capitalize on the region’s manufacturing expertise.
- **Transportation:** Incoming companies prefer to hire within the region, taking advantage of the Mon Valley’s wealth of industrial knowledge, rather than import workers from other parts of Allegheny County. Due to decades of disinvestment and the unique mixed urban-suburban geography of the region, most neighborhoods in the Mon Valley are poorly served by public transit and dangerous for pedestrians. Both employers and families are invested in building communities where people can walk to work, take a bus to the grocery store, and attend school events without needing to rely on a costly private vehicle.

- **Economy:** Incentivizing the return of tradable “anchor” industries will not only capitalize on the region’s industrial and manufacturing capacity, but also support the creation of family-sustaining jobs and of businesses that meet urgent community needs.
- **Community Wealth:** Residents recognize the discrepancy between the resource-rich nature of the Mon Valley and the restriction of access to those resources. Although all the communities highlighted in this report have access to the Monongahela River, for example, the natural beauty of the riverfront is almost completely inaccessible to residents. Intangible resources like cultural vibrancy and community feeling require the stability of tangible, everyday resources: healthy food, affordable childcare and quality schools, well-maintained recreational areas, accessible homeownership, and long-term financial security. Mon Valley communities wish to build this community wealth without further compromising the natural environment or pushing out current residents.

While residents of the Mon Valley Communities are enthusiastic about the prospects of infrastructure improvements and new employment opportunities, their lived experience has led to understandable concerns about displacement, disenfranchisement, and increased costs of living. Any new project in the region should operate with understanding of the region’s complex history, and should make concerted efforts to engage with these concerns and needs whenever possible.

VISUALIZATIONS: ECONOMY AND QUALITY OF LIFE

After an extended period of economic shrinkage and outward migration, Mon Valley communities trail behind national and state averages in key QOL measures.

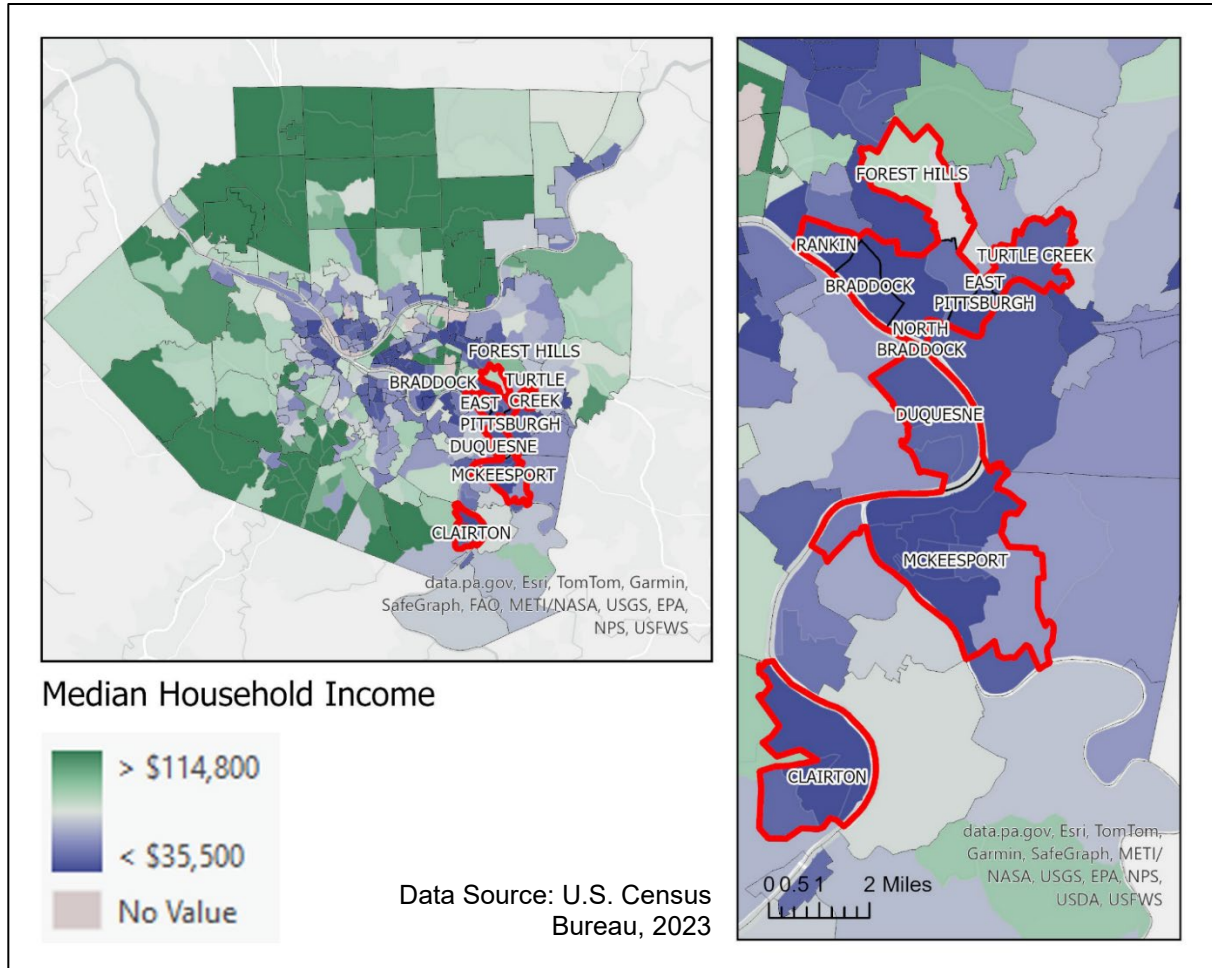


Figure 3 Mean Household Income (12 months estimates 5 year dollars adjusted for inflation – 2022)

The Median Household Income Map shown above is based on the past 12 months (adjusted for inflation to dollars of the last 5-year range before 2022) from the American Community Survey (ACS). The ACS is a survey that provides annual data, assisting communities in planning where to invest and which services to offer. The 5-year estimates from the ACS depict data collected over time. Utilizing these estimates enhances the reliability of the data, particularly for small communities and specific demographic groups.

For Mon Valley Communities, compared to other parts of Allegheny County, the majority of these communities have a lower median household income, with the exception of Forest Hills, which falls in the mid-range. A low median household income can indicate lower overall economic prosperity and potentially limited access to resources and opportunities for residents in those communities.

This is reflected in the unemployment rate in the Mon Valley communities. Amongst all, Braddock, Rankin, and some parts of North Braddock show extremely low employment rates. The data for this map is collected from Environmental Justice (EJScreen) that showcase the percentage block group's population that did not have a job during the reporting period (5-year estimates before 2022), or made at least one specific active effort to find a job during prior four weeks and were able to work, unless temporarily ill.

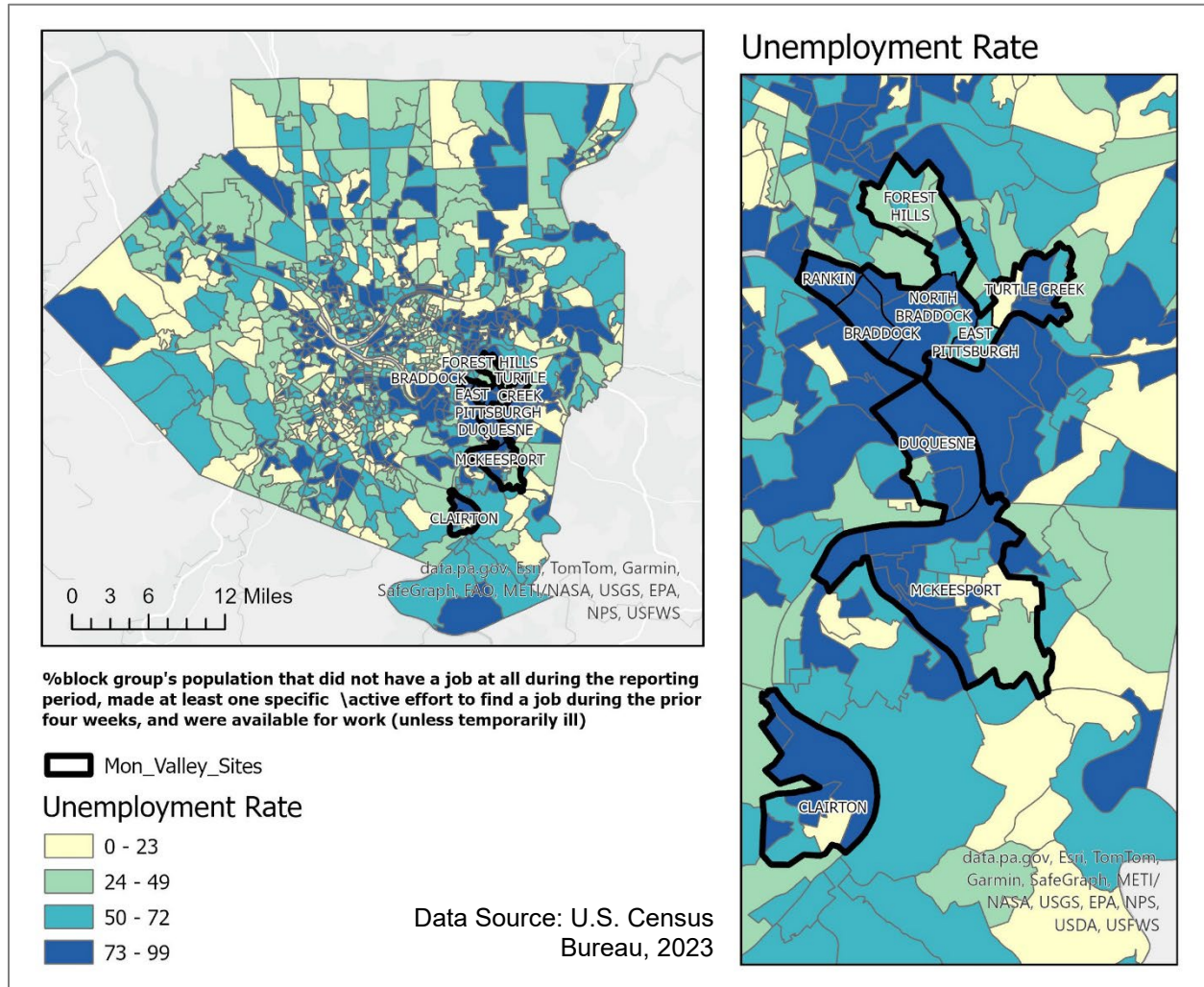


Figure 4 Unemployment Rate – Mon Valley Communities

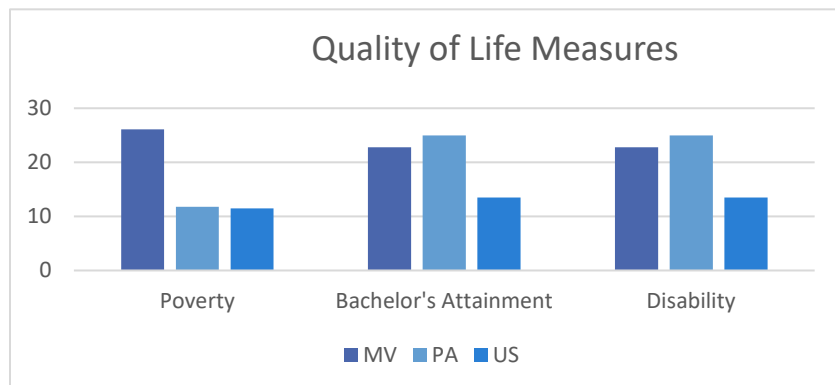


Figure 5 Quality of Life Measures

Overall, in comparison to Pennsylvania and United States, Mon Valley communities perform poorly in terms of poverty, bachelor's attainment and disability showing poor quality of life.

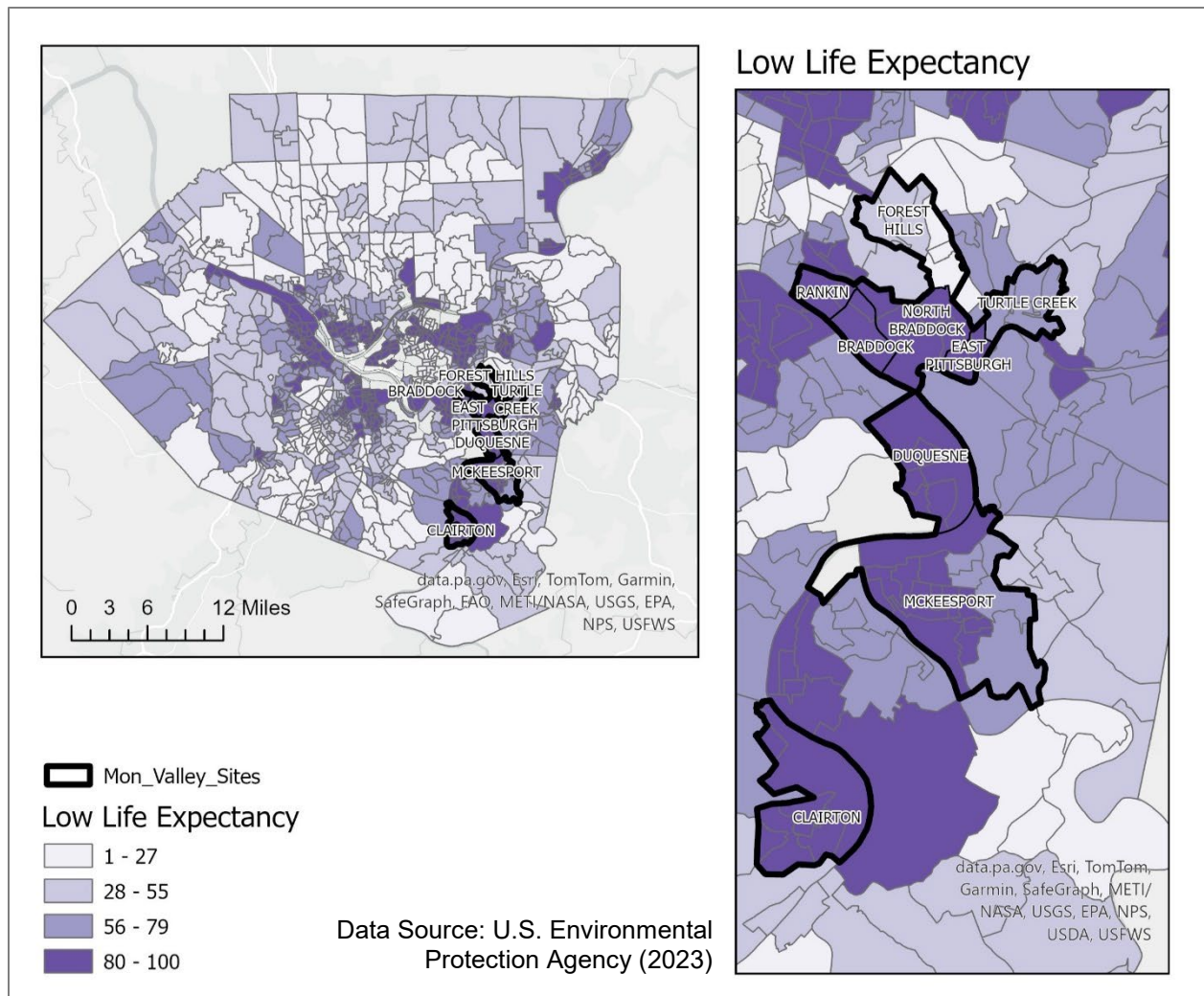


Figure 6 Low Life Expectancy (EJ-Screen)

Compared to the Allegheny County region, Mon Valley sites generally exhibit a lower life expectancy, with the exception of the Forest Hill region. EJScreen uses an inverse measure to highlight areas where life expectancy is below national norms. This measure assigns higher values for lower life expectancy and lower scores for higher life expectancy. "Low Life Expectancy" is calculated as the inverse of the normalized life expectancy derived from the Life Expectancy at Birth data from the Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS): % Low Life Expectancy is defined as "1 – (Life Expectancy / Max Life Expectancy)."

VISUALIZATIONS: TRANSPORTATION

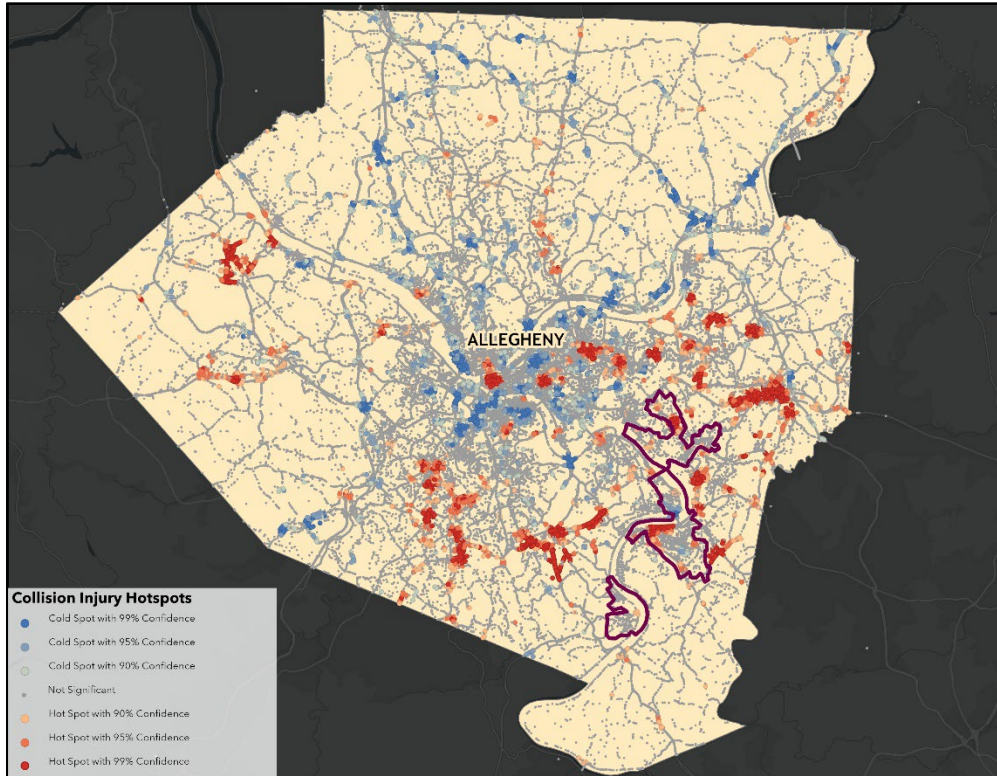
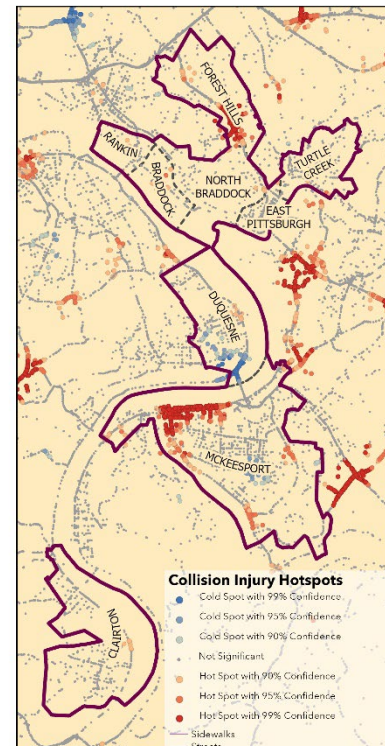
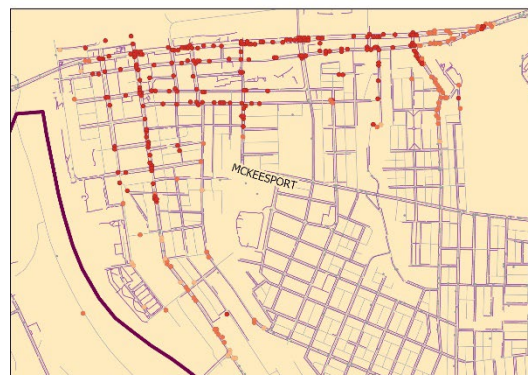
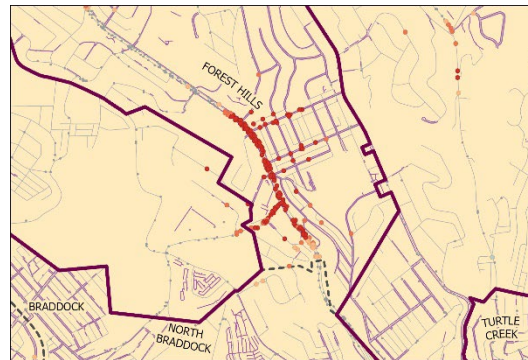


Figure 7 - Macro Collision Injury Hotspots

Figure 8 - Micro Collision Injury Hotspots



Data Sources: Western Pennsylvania Regional Data Center, 2023, Cumulative Crash Data & Sidewalk to Street "Walkability" Ratio

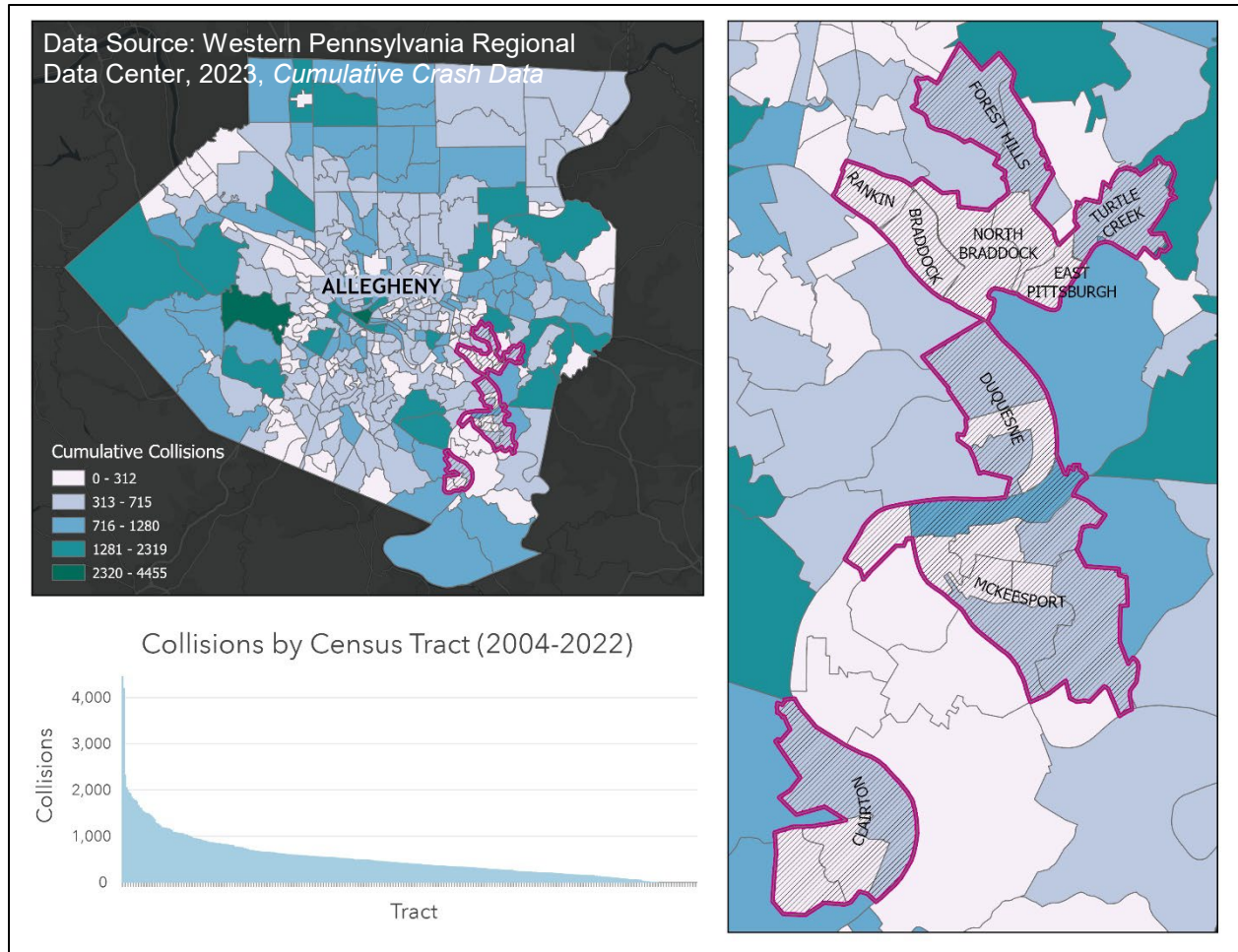


Figure 9 Collisions by Census Tract (2004-2022)

While the municipalities in the Mon Valley do not experience a number of collisions out of the norm compared to the rest of Allegheny County (see Figure 9), they do experience a greater proportion of collisions that result in injury. Figures 7 and 8 show the results of a hot spot analysis on all collisions in the county from 2004 to 2022 that led to injury. The Mon Valley contains two such hotspots in addition to other neighboring clusters of high injury rate areas.

Closer examination shows that these hotspots are in areas with high sidewalk density, indicating that pedestrians are more likely to be at risk than drivers. This contrasts with other areas in Allegheny County that are labeled as cold spots, regardless of collision incidence. For example, many bridges in the County experience exceptionally large numbers of collisions but are labeled as cold spots because of their low injury rate.

VISUALIZATIONS: HEALTH

Mon Valley Sites are in proximity to hazardous waste management facilities. The map showcases the count of hazardous waste management facilities within 5km (or nearest one beyond 5 km range each divided by distance in km. Hazardous waste proximity sources are derived from operating Treatment, Storage, and Disposal Facilities (TSDFs) from RCRAInfo and Large Quantity Generators (LQGs) from the 2021 Biennial Reports (BR) on February 9, 2023.

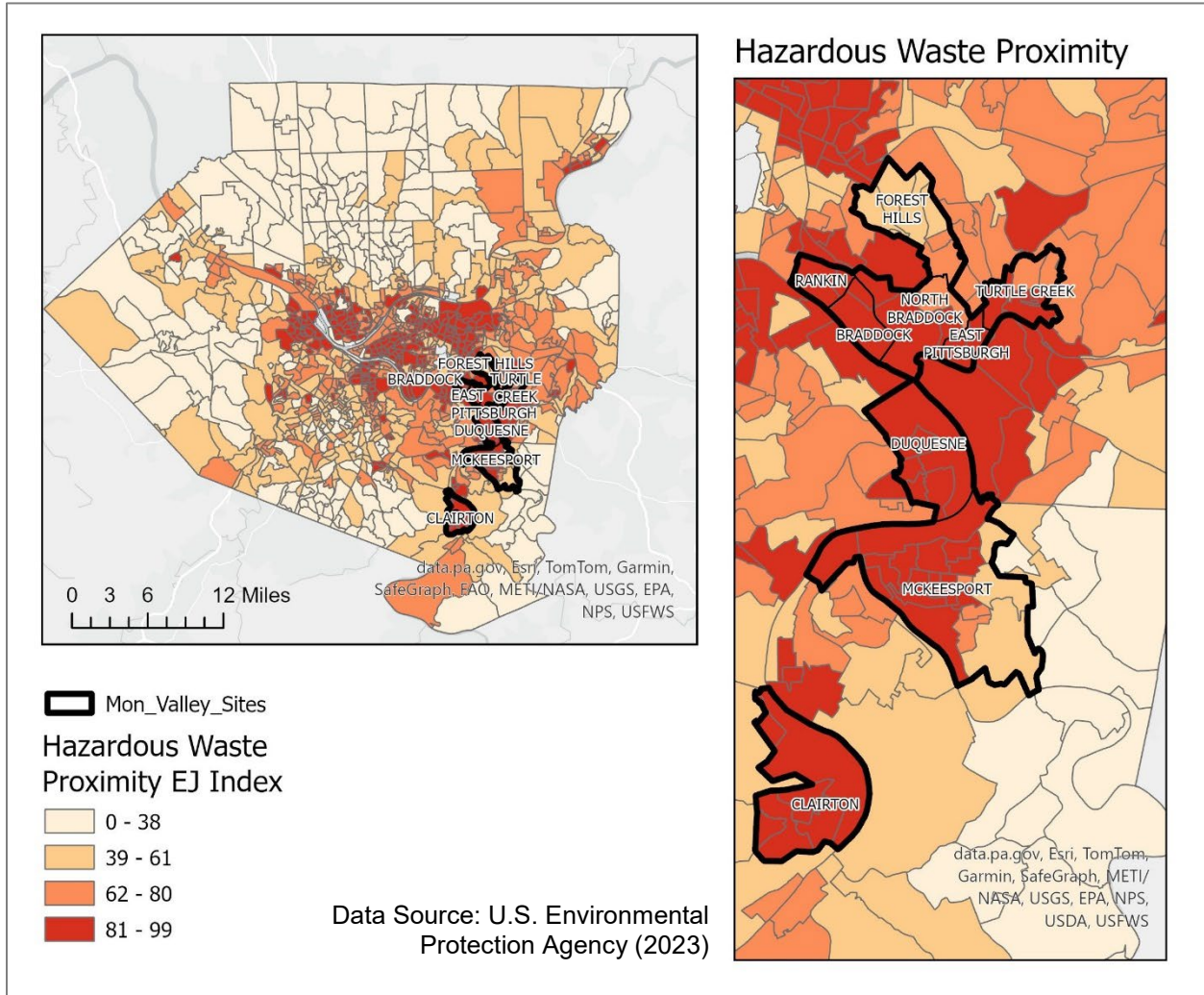


Figure 10 Hazardous Waste Proximity – Mon Valley Communities

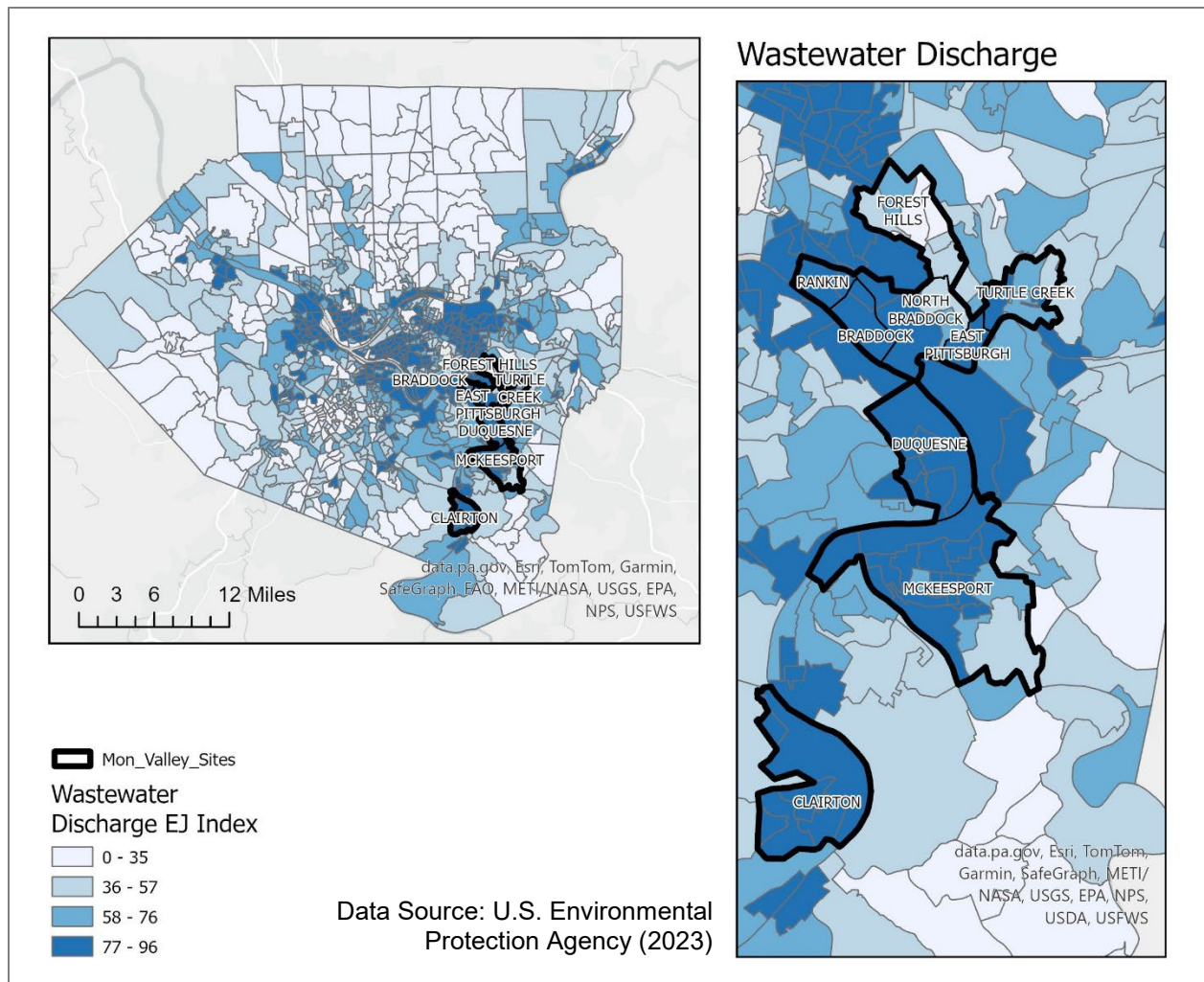


Figure 11 Wastewater Discharge – Mon Valley Communities

The wastewater discharge indicator quantifies a block group’s relative risk of exposure to pollutants in downstream water bodies. This is achieved using toxicity-weighted concentrations in stream reach segments within 500 meters of a block centroid, divided by distance in meters, presented as the population-weighted average of blocks in each block group. The wastewater discharge indicator uses data from the Discharge Monitoring Report (DMR) Loading Tool and the RSEI model to figure out how much pollution is in nearby water bodies. To show areas with more dangerous pollution levels, we divide the toxicity-weighted pollution levels by the distance to the center of a Census block. This gives us a weighted proximity value, indicating how much risk there is of being exposed to pollutants in nearby streams.

Most of the Mon Valley Sites lie in his risk zone of wastewater discharge with an exception of Forest Hills, and some parts of Turtle Creek and North Braddock area.

PROJECT I: ENTERPRISE ZONE DESIGNATION

EXECUTIVE SUMMARY

Historically, communities in Allegheny County's Mon Valley served as epicenters of the region's thriving steel industry. When steel jobs began to disappear, economic opportunities plummeted and many residents moved out of the Mon Valley, creating a demographic vacuum that hollowed out main streets and drove down tax revenues. To begin a new economic chapter in the region, Main ST plans to apply to PA DCED to establish a Keystone Enterprise Zone benefitting eight Mon Valley communities: Braddock, North Braddock, East Pittsburgh, Rankin, Clairton, Duquesne, Forest Hills, and Turtle Creek. The proposed Mon Valley Enterprise Zone will offer businesses within these municipalities priority consideration for DCED grant funds, low-interest loans to support the acquisition of land and rehabilitation and/or expansion of infrastructure, tax credits to support the cost of construction and expansion, and bidding advantage for state contracts.

Through establishing the MVEZ, Main ST particularly hopes to incentivize the development of support services, food services, suppliers, and other essential businesses that contribute to community vibrancy and resiliency. Investments made through the MVEZ will strengthen public/private partnerships, rebuild community trust in existing institutions, and increase the competitiveness of local businesses pursuing grant, loan, and tax credit opportunities. Notable supporters of the project include Allegheny Conference, Mon Metro Chamber of Commerce, Network for Sustainable Business at Pitt, Steel Valley Authority, the Pittsburgh Foundation, the Forbes Funds, PNC Foundation, and the Mon Metro Chamber of Commerce.

NEEDS SUMMARY

The proposed Mon Valley Enterprise Zone will include the municipalities of Braddock, North Braddock, East Pittsburgh, Rankin, Duquesne, Clairton, Forest Hills, and Turtle Creek. The total number of acres comprising the proposed Zone is 3,520 square feet (approximately 5.5 square miles). These municipalities are not only geographically contiguous, but also economically, historically, and programmatically connected. Historically reliant on industries such as steel and manufacturing, disinvestment in those has caused the Mon Valley region to experience significant demographic shifts and rapid declines in population, educational attainment, and household economic security.

According to the Braddock, East Pittsburgh and, North Braddock Joint Comprehensive Plan ("BEN Futures Plan"), leading drivers of economic stagnation in the region include high property vacancy rates, limited municipality-level capacity to provide administrative support to local businesses, and lack of access to educational and training programs that align with the rapidly emerging and evolving demands of industry in Allegheny County and the Greater Pittsburgh region¹.

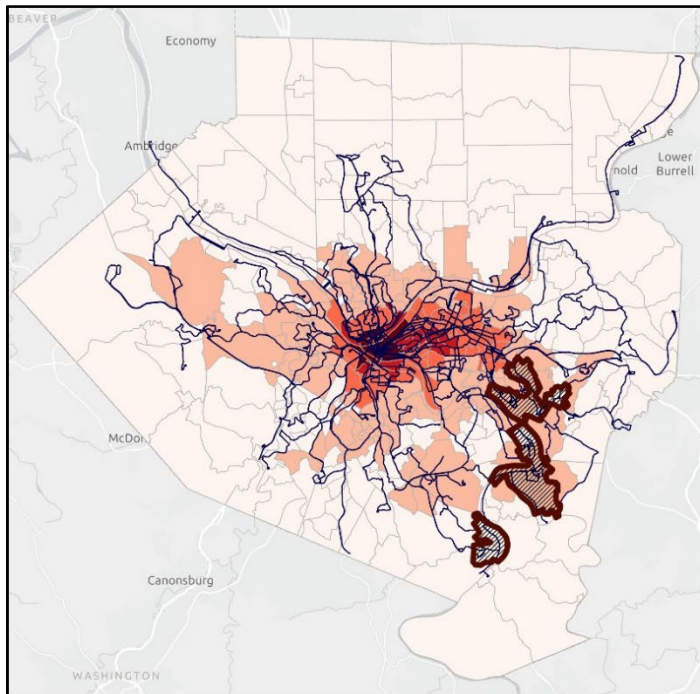
Although these Mon Valley communities are populated with hardworking families and strategically located - with convenient access to major employment centers, powerful consumer markets, and regional transportation routes - historical disinvestment has limited the supply of quality commercial properties, access to technological investments such as high-speed internet,

and municipal capacity to invest in local entrepreneurs. Establishing an Enterprise Zone will allow strategic investment in each of these barriers to long-term economic growth.

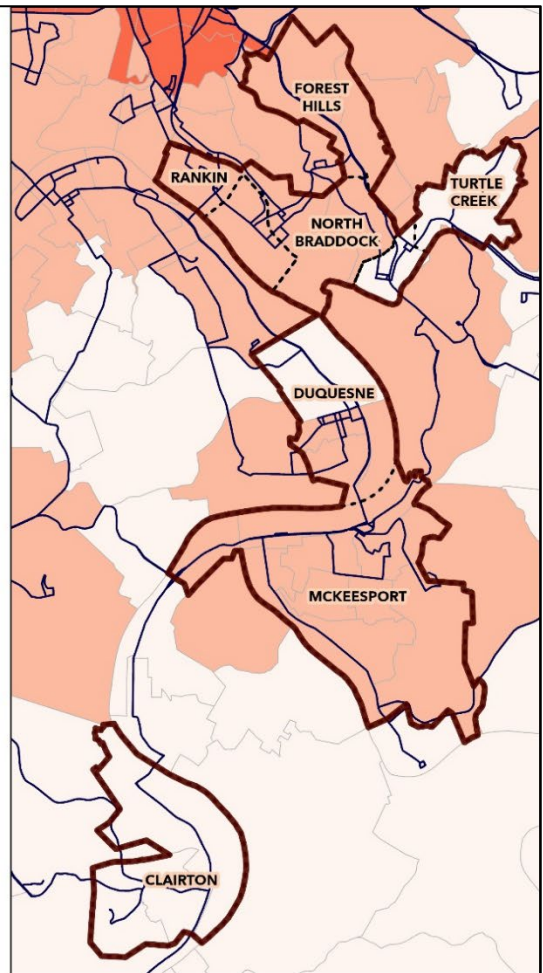
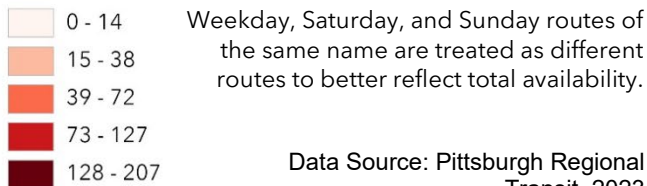
DEMOGRAPHIC AND COMMUNITY NEED PROFILE

Historic inequities in the Mon Valley region, caused by decades of segregationist practices such as property redlining and employment discrimination in the steel industry, prevented marginalized populations from establishing businesses or building long-term wealth. After the nationwide decline of the steel and manufacturing industries and the ensuing labor devaluation across Southwestern Pennsylvania, many residents of the region moved away from their home communities in search of a higher quality of life. This depopulation has led to shrinkage in tax revenues, property values, and consumer bases, further contracting the local economy and making it difficult to maintain and attract businesses. Although the narrative around the Greater Pittsburgh region has been dominated by stories of deindustrialization, manufacturing remains the second-highest employing sector in the Mon Valley, employing 22.5% of the workforce.

The above table shows a variety of key demographic and economic data on the six communities comprising the proposed Mon Valley Enterprise Zone. Both median and per capita income lag behind national and state rates, and poverty rates exceeded the national/state rate in all but one municipality. Although high school diploma attainment keeps pace with national/state rates, with minor variation in both directions, attainment of bachelor's degrees is substantially lower in every municipality except Forest Hills. Property vacancy rates are also comparatively high, a result of sustained migration from the region over the last several decades.



Bus Routes within 1 km



The region is poorly served by public transit compared to other areas of Allegheny County, with the following Pittsburgh Regional Transit lines operating in the Mon Valley:

- 61A North Braddock
- 61B Braddock-Swissvale
- 59 Mon Valley
- P76 Lincoln Highway Flyer
- P68 Braddock Hills Flyer
- P71 Swissvale Flyer
- 67 McKeesport Flyer

Forest Hills and Turtle Creek experience slightly more robust public transit service with additional access to the 69 Trafford, P69 Trafford Flyer Pittsburgh Regional Transit lines.

As the number of older and lower-income residents in the Mon Valley has increased, demands on the transit system have also grown. Although Mon Valley residents commute via public transit at similar rates to City of Pittsburgh residents, large disparities exist in the density and number of bus stops. Despite this poor service, Mon Valley residents are less likely than other

state and county residents to own personal vehicles and thus more dependent on public transit to work:

	Households with no Personal Vehicle¹	Workers Commuting via Public Transit²
United States	8.3%	3.8%
Pennsylvania	11.0%	4.3%
Braddock	27.9%	28.7%
North Braddock	19.5%	13.1%
East Pittsburgh	27.7%	14.5%
Rankin	14.8%	23.6%
Clairton	16.8%	3.5%
Duquesne	34.4%	22.2%
Forest Hills	3.2%	7.8%
Turtle Creek	9.9%	13.1%

According to local advocacy organization Pittsburghers for Public Transit, several of the above-named routes are among the least reliable in the Pittsburgh Regional Transit network, generally arriving no more than 5 minutes late only 50-60% of the time.ⁱⁱ Inadequate and unreliable public transit is one of the barriers to employment most frequently cited by members of these Mon Valley communities.

CHALLENGES AND BARRIERS

Despite these challenges, residents of the Mon Valley region have demonstrated significant resilience and determination to diversify the local economy, attract new industries, and invest in education and workforce development programs to provide residents with the skills needed for emerging job opportunities. These initiatives have helped many residents rebound, but they have not been enough to serve potential workers who are greatly detached from the workforce system and experience significant barriers to employment.

However, businesses in the region experience challenges in securing sustainable investments and accessing capital resources for renovation and expansion. Business owners also frequently encounter regulatory barriers; without municipal assistance, navigating compliance with local, state and federal regulations is often difficult. With limited resources to communicate with and assist business owners, it can be challenging for Mon Valley municipalities to maintain effective

¹ U.S. Census Bureau; American Community Survey, 2022 American Community Survey 1-Year Estimates, Table B08201.

² U.S. Census Bureau; American Community Survey, 2022 American Community Survey 1-Year Estimates, Table B08206

public-private partnerships and set goals that align with the needs and interests of local businesses.

Due to the factors outlined above, the region’s economy has been slow to meet the employment demand of its residents in recent decades. The majority of workers living in the Mon Valley travel to other areas of Allegheny County for work, as shown in the table below³:

United States	41.7%
Pennsylvania	34.6%
Braddock	94.9%
North Braddock	81.0%
East Pittsburgh	79.4%
Rankin	89.5%
Clairton	78.8%
Duquesne	72.5%
Forest Hills	76.1%
Turtle Creek	85.7%

These regular employment migrations weaken the connection between workers and their communities while further deepening the conviction among residents that the region is not capable of supporting them economically. Although other employment barriers exist for Mon Valley workers, trust in the capacity of municipal governments and local businesses to provide employment opportunities for residents remains low.

PROJECT NARRATIVE/DESCRIPTION

An analysis highlighted features common to the “new economy,” in which cultural, recreational, and economic amenities are key to retaining residents with valuable talent and knowledge.ⁱⁱⁱ Public-private

partnerships and diversified economic clusters are key to this transition. Since modern workers seek communities with a high quality of life - a shift illustrated by the migration away from Mon Valley neighborhoods during the period of disinvestment described above - business-friendly policies and economic stimulus must be supported by affordable housing, diverse social and recreational spaces, clean environments, and proximity to natural resources.

Several goals articulated in the BEN Futures Plan and shared by the remaining Mon Valley Community municipalities align with the economic stimulus initiatives of the Enterprise Zone program:

- **Invest in Commercial/Industrial Drivers:** Retain existing businesses and attract entrepreneurship activities that reflect the needs and culture of the community. Coordination between local development organizations, environmental organizations, chambers of commerce, and businesses will be key to successfully revitalizing the region’s commercial infrastructure, particularly when remediation of environmentally marginalized sites is required. Incentivizing tradeable industry players to the Mon Valley will also capitalize on the region’s industrial capacity while injecting capital and creating jobs.
- **Increase Local Ownership and Capacity:** Provide financial and administrative resources to not only help existing businesses expand operations, but also to incentivize local entrepreneurship and help informal economy services (such as home-based

³ U.S. Census Bureau; American Community Survey, 2022 American Community Survey 1-Year Estimates, Table B08006.

childcare and unregulated catering) build trust and credibility. Encouraging the reuse of existing infrastructure and buildings is also a high priority.

- **Support Entrepreneurship:** Increase competitiveness through technology investments and accelerate growth by supporting local entrepreneurs. Clear guidance from municipal officials, streamlined collaboration between the MVEZ and local businesses, and increased availability of investment mechanisms for businesses of all sizes will support this goal.
- **Diversifying Business Availability:** Stimulate specific sectors to remediate service “deserts” and reinforce essential community businesses. Core support includes grocery stores, medical and in-home care providers, and childcare/preschool providers. Although “anchor” commercial institutions like manufacturers are crucial, life-sustaining “main street” businesses provide a sense of opportunity, momentum, and stability to the community.
- **Providing Accessible Employment Opportunities:** Incentivizing employers to bring jobs back to the MVEZ and address chronic unemployment and underemployment, particularly among historically marginalized groups.
- **Building Public Service Capacity:** Strengthen the MVEZ communities’ tax base in order to make necessary improvements to public services, including improvement of transportation infrastructure, expansion of educational opportunities, provision of mental health and substance use services, and increasing of public transit quality and reliability.

Each of these initiatives has the effect of not only making the Mon Valley more welcoming for employers, but also making it an attractive place for residents to make a home.

OUTCOMES AND METRICS

More information from DCED is needed to determine the appropriate outcomes/metrics for an Enterprise Zone program. If no predefined targets are provided by the state, suggested outcomes may include:

- Number of businesses within the EZ applying for EZP tax credits
- Number of businesses within the EZ applying for grant opportunities
- Number of businesses within the EZ applying for and securing loans

RECOMMENDATIONS

Although the Enterprise Zone program is a statewide funding initiative, the following recommendations are tailored for the implementation and communication about the program for the needs of the Mon Valley:

- **Emphasize History of Innovation:** Take advantage of the region’s strong historic business cores and downtown corridors by encouraging mixed residential and commercial uses that stimulate local economic activity and improve livability indices.
- **Reach Out to Business Owners:** Invest in educational activities that explain the tax credit/loan application process, clarify technical and/or legal terminology that may be

alienating to potential applicants, and help local businesses understand the potential benefits of the MVEZ and other funding programs. Consider aiding potential tax credit/loan applicants through informational sessions, workshops, or consultation.

- **Focus on Quality of Life:** Champion infrastructure improvements that open connections to the Monongahela River, such as park and green spaces and pedestrian road/rail bridges. Consider “active transportation” plans and improvements that make navigating communities easier and less reliant on personal vehicles.
- **Connect to Local and Regional Markets:** As nearby economic hubs in Allegheny County and the Greater Pittsburgh region continue to grow, there is an opportunity to leverage connections with the MVEZ’s economic assets. Since MVEZ communities are disconnected from each other due to poor infrastructure, strengthening intermunicipal commercial ties will also be a powerful economic driver by encouraging shoppers to move between “main streets,” coordinating bulk purchases, and investing in stronger transit systems.

PROJECT II: VACANT AND UNDER-MAINTAINED PROPERTIES

EXECUTIVE SUMMARY

Research has repeatedly demonstrated the potential of vacant property rehabilitation projects to boost community pride and engagement, improve mental health, and revitalize surrounding property values. After the collapse of Southwestern PA's steel industry, many Mon Valley communities experienced a residential exodus that resulted in significant property decline and produced long-term reductions in tax revenue. The borough of North Braddock has launched multiple rehabilitation initiatives, including code reform, public works expansion, and a comprehensive assessment of the extent of the issue. Given the Mon Valley region's weak housing market, however, the cost of acquiring and redeveloping a condemned property often exceeds its market value. Support for this project will equip North Braddock and surrounding Mon Valley communities to expand a large-scale effort to identify, assess, demolish and/or repair, and otherwise stabilize under-maintained parcels and enable community revitalization.

NEEDS SUMMARY

The 2020 U.S. Census estimated 388, or roughly 16% of housing units in the North Braddock region were vacant^{iv}, although the count is expected to be much higher. Some of these structures could have been salvaged at an earlier point in time, but have now deteriorated beyond repair. Studies show that vacant and deteriorated buildings reduce property value, increase the risk of violence and crime, harm tax revenues and drain public resources, and weaken the neighborhood and community as a whole^v. There is a significant need to remove these parcels and revitalize the region's properties. Below summarizes the key needs for this project:

- **Removal or rehabilitation of abandoned and deteriorated homes:** The abandoned and deteriorating homes cause many issues for residents who still reside in North Braddock. Some streets are entirely abandoned and attract vermin like mice, racoons, and skunks. Issues with criminality, including theft and arson, are also prevalent, and make insuring the existing properties challenging. The houses also pose issues as they are visually unpleasant, create challenges for residents' mental health, and make the area unattractive to new investment or residents.
 - **Financial Impacts:** According to a Tri-COG Collaborative report from 2014 focused on Mon Valley communities^{vi}, the loss associated with ongoing impacts of not investing in or addressing the property neglect amounted to \$8,284,294 annually. This is in addition to direct costs of over \$19.3 million, and an estimated property value loss between \$218 to \$247M. Given the timing of the study and the lack of action since 2014, this dollar amount has likely grown significantly.
- **Restore diminished tax base:** The proliferation of abandoned and poorly maintained homes reflects the rapid population decline in North Braddock. The exodus of residents results in a diminished tax base in terms of property taxes and devalued neighboring properties, resulting in reduced resources to support other public works. In the absence

of property owners paying taxes, investors are needed to purchase liens and pay the taxes owed ^v.

- **Create affordable housing:** A 2016 Housing Needs Assessment for Allegheny County estimated a shortage of 15,000 affordable homes, and an additional shortage of 8,200 homes at 30% of the area median income^{vii}. Rising housing costs can potentially displace individuals and add a cost burden for households in the areas of food, health care, or transportation. New homes in North Braddock have the potential to serve as affordable housing options for residents in the greater Allegheny County area.

DEMOGRAPHIC AND COMMUNITY NEED PROFILE

Workforce reductions at the U.S. Steel Edgar Thomson Steel Mill came with the decline of the steel industry in the 1970's, and resulted in large layoffs in the early 1980s. This, along with Westinghouse and other plant closures left more than 20,000 workers without employment.

Property Vacancy Rates ⁴	
Braddock	23.10%
North Braddock	16.00%
East Pittsburgh	16.90%
Rankin	16.40%
Clairton	19.20%
Duquesne	16.00%
Forest Hills	6.90%
Turtle Creek	13.40%

Since 1990, the population of the Mon Valley has shrunk approximately 1% each year, and this population drain continues today^{viii}. North Braddock has lost three-quarters of its population from its peak in the 1930s, with nearly a 14% decline each decade⁵. Many residents and families simply walked out of their homes in pursuit of economic opportunities elsewhere, and municipal governments had few tools at their disposal to address this large-scale hollowing of residential property. Vacancy rates are significantly higher than the national average of 9.7%, as seen in the table to the left, and have further worsened according to 2022 5-Year Estimates American Community Survey Data.

Residents who remain in the Mon Valley often experience poverty, with a median household income of \$39,885, far below the Pittsburgh and Pennsylvania median household incomes (\$63,380 and \$71,798 respectively). About a quarter of the borough lives below the poverty line, more than double the poverty rate of Pittsburgh. When many homeowners have abandoned their properties, and those who remain have limited financial resources for maintenance and repair, property neglect and/or abandonment generally follows. At the municipal level, a lack of capacity to address neglected and abandoned property has only intensified this issue in these Mon Valley communities.

Addressing the property decline in the Mon Valley will require a multifaceted approach that encompasses not only the physical rehabilitation of structures but also the revitalization of the surrounding community. Key needs include securing funding for property acquisition and renovation, developing legal mechanisms to deal with absentee and negligent property owners, and implementing community engagement initiatives to ensure redevelopment efforts align with the needs and aspirations of residents.

⁴ U.S. Census Bureau 2020 Decennial Census Table H1

⁵ Appendix II for detailed housing statistics

CHALLENGES AND BARRIERS

The Tri-COG Lank Bank (TCLB) has encountered three common barriers when repossessing abandoned and vacant properties^{ix}:

- Legal barriers hindering gaining ownership and accessing parcels, including liens
- Challenges with identifying a permanent “end user” for the parcel (i.e. purchaser with interest and capacity to maintain the property)
- Financial losses incurred due to the discrepancy between the cost of acquiring and maintaining parcels and the parcel’s current market value, given the Mon Valley region’s weak real estate market

Additionally, there are general challenges associated with addressing vacant and neglected parcels. These include:

- **Limited or insufficient funding:** There is a significant financial burden associated with maintaining existing deteriorated parcels (in terms of lost taxes and property value, and municipal services), but also with tear down, removal, and rehabilitation.
- **Limited data:** Local governments often lack comprehensive data related to the quantity, state, and location of vacant and abandoned parcels, which can make estimating costs and planning next steps difficult.
- **Lack of resources:** In addition to lack of financial resources, there is often a lack of personnel at the municipal level to plan and address the issues associated with vacant and neglected parcels.
- **Environmental and health issues:** Asbestos, mold, and other health hazards are likely in these neglected buildings, which can increase costs and add complexity to the removal and treatment of the parcels.

PROJECT NARRATIVE/DESCRIPTION

According to a Tri-COG Collaborative report from 2012 focused on Mon Valley communities, stable vacant lots are estimated to increase surrounding home values by an average of 1.6%, while vacant lots decrease property values by 6.0%. On average, the report concluded, stabilization of a parcel can increase surrounding home values by 7.6%^x.

Several key steps have already been taken to address both the immediate property crisis and the deeper socioeconomic challenges that contribute to its growth. North Braddock has updated code enforcement procedures to streamline the process of identifying and remediating property issues, and increased the capacity of its public works department to provide more robust maintenance services. The borough also received \$65,000 to conduct assessment and remediation of properties within its boundaries. The study is expected to confirm the current estimate of approximately 1,000 inadequately maintained parcels, including both abandoned structures and empty, overgrown lots. The assessment will include location capture, photography of the abandoned/derelict properties, and the creation of a public report that includes the address, tax status, and estimated value of each property.

After completion of the neglected property and architecture assessment, the borough plans to demolish and/or repair under-maintained structures identified during that process. Further collaboration with Allegheny County will create a subdivision for the Mon Valley and establish legal action in all six targeted communities. Once mechanisms exist to systemically address this issue, the municipalities intend to continue quantifying and documenting the number of affected properties identified by the Tri-COG Land Bank and Mon Valley Initiative.

Assessment and remediation activities may extend into the borough of Rankin and other Mon Valley Communities, but only if resources permit extension of the project. Since most abandoned vacant land parcels are in weak- or distressed-market areas, the market value of the land is much lower than the costs to acquire and clear its title. The costs to make tangible investments in redevelopment and transform vacant parcels into desirable, family-sustaining properties are even higher. Additional funding is needed to complete this resource-intensive demolition and redevelopment work.

The key project activities are summarized as follows:

- **Demolish or rehabilitate abandoned and deteriorated homes, and clean abandoned lots:** Funding is needed to complete the acquisition, tear down, and/or cleanup of ~1,000+ parcels in each community. The TCLB calculated acquisition costs to be approximately \$6,000 per unit, with the average cost of repairs to be \$40,000^{xi}. Demolition is estimated to be \$20,000 a parcel, as noted above. The tear down or rehabilitation of these homes is necessary to alleviate issues associated with vermin, theft, and reduced nearby real estate values.
- **Addressing vacant land at scale:** While local organizations like the TCLB have made significant headway towards acquiring, fixing up, and selling properties, this makes up less than 10% of the total number of parcels that need remediation^{xii}. Coordinated efforts across partner organizations are necessary to develop a long-term revitalization plan and address the issue at scale.
- **Establish lead-safe demolition requirements:** The risk of lead poisoning is heightened if property demolition is mishandled. Further assessment is needed to determine and codify proper procedures needed for home tear down. Possible asbestos and lead paint in many homes requires testing and a controlled tear down, and these assessments generate greater costs. Additional testing and a controlled tear down are estimated to increase home demolition costs to \$20,000 per parcel.
- **Building new homes and attracting and incentivizing home buyers:** There is a significant need to rebuild homes to draw in new buyers, bring in more residents, and restore the tax base for public services.
- **Workforce Training and Development:** Mon Metro has instituted workforce development programming to support residents in North Braddock, including training on landscaping, and has received funding to complete work on 50 lots. Additional funding is needed to expand this program to more lots and include training for construction and deconstruction. This would support the creation of an “in-house,” community demolition team to manage costs and empower the community to address the issue.

OUTCOMES AND METRICS

Mon Metro seeks the redevelopment and revitalization of the North Braddock community, as well as the provision of affordable and suitable housing for those in North Braddock and more broadly in Allegheny County.

Relevant metrics or key performance indicators could be used as follows:

- **Property vacancy rates:** Tracking the decline or change in vacancy rates once funds are utilized to address project activities.
- **Property rehabilitation rate:** The number of properties that are demolished and redeveloped or rehabilitated.
- **Cost per property rehabilitated:** An estimate of the cost per property rehabilitated can facilitate planning and the request for further funds for addressing under-maintained properties in the broader community and in neighboring areas.
- **Non-violent and Violent Crime rates:** Studies have shown that areas with higher vacant and neglected properties attract crime and violence. The removal and remediation of these properties should subsequently reduce these rates.
- **Economic impact:** The impact in terms of growth in tax revenue or reductions in city maintenance costs would support continued efforts to address property decline.
- **Community Member Training:** The number of community members that have undergone community or workforce training to support the demolition or rehabilitation or properties in the region.

RECOMMENDATIONS

- **Terminology:** We recommend replacing the terminology of 'blight' with 'terms such as under-maintained, neglected, deteriorating, or abandoned properties and aligning terminology across community partner organizations. 'Blight' is a problematic word because of the negative and prejudicial racial and ethnic associations that can be drawn out to the rest of the neighborhood and the individuals who reside there^{xiii}. Revising the terminology is also consistent with what the Center for Community Progress, a national organization working around this issue, recommends and has implemented across their website content.
- **Data collection:** Since information on vacancies, abandonment, and neglect are not easily accessible, time and financial investments are needed to support ongoing data collection in the Mon Valley Region regarding the location and number of abandoned, vacant, or neglected properties and their status. Currently, there is no accurate or single data set that encompasses the neglected and abandoned properties in the city. Rental registries, foreclosure filings, tax delinquency, property condition and post office data are separate datasets that serve as potential resources to provide an educated guess on this data. Gathering and centralizing a single data set would support long-term planning for the parcels and the community.

- **Arc GIS Training:** Dedicated training or an employee working in this space could support the community, as data is collected and then mapped for future planning purposes. Mapping, utilizing the Arc GIS program, would allow municipalities to see concentrations or ‘hot spots’ of deteriorated homes, and plan and prioritize a strategy for addressing the parcels.
- **Investigate case studies of successful revitalization:** The community may consider implementing similar methods or efforts enacted in other communities. Some examples include the Baltimore ‘Vacants to Value (V2V) program, which conveyed over 1,500 properties for rehabilitation, or the Slavic Village Recovery, Inc. in Cleveland that supported the rehabilitation of homes in a cost-effective, accessible manner to the community^v.
- **Encourage ongoing community participation:** The Mon Valley region should take North Braddock’s example of community workforce development and training to both 1) engage the community and 2) empower community members to resolve the issue of property decline and neglect. This could also include contracting with local contractors, when possible, for property rehabilitation, renovation, and demolition.
- **Coordinate across partner organizations:** There are numerous organizations working to support the work around rehabilitation and cleanup of neglected and abandoned homes in the region. This includes the Tri-Cog Land Bank, Allegheny County of Economic Development, Mon Valley Initiative, Rebuilding Together Pittsburgh, PA Housing Alliance, City of Bridges Community Land Trust, Center for Community Progress, and more. It is critical to coordinate the sharing and distribution of data, resources, learnings, and funding to ensure the greatest impact.
- **Include demolition and property clean up as part of a broader, comprehensive plan for revitalization:** Develop planning for rehabilitation and stabilization for structures once assessments are complete. This could include outlining strategies for reuse of vacant lots, greening, or plans to incentivize further investment. Demolition and rehabilitation of individual properties is only part of what is needed for community revitalization. It’s critical that a larger plan is developed that encompasses this work.

PROJECT III: BRADDOCK BUSINESS COMMUNITY INITIATIVE (BBCI)

EXECUTIVE SUMMARY

In partnership with the Redevelopment Authority of Allegheny County (RAAC) and Allegheny County Economic Development (ACED), the Braddock Business Community Initiative (BBCI) seeks to redevelop commercial activity along Braddock Avenue in Braddock, PA by facilitating the ownership transfer of otherwise abandoned properties, and waive liens, taxes, and fees that may otherwise restrict the progression of new business.

The BBCI sought to encourage local ownership of businesses and cultivate a diverse set of businesses along Braddock Ave. The BBCI identified the potential properties and selected individuals and businesses through a request for development proposal (RFP) process to transfer property ownership to. These local companies are now seeking funding through grants and loans to restore the units and support the launch of their businesses.

NEEDS SUMMARY

- **Property rehabilitation:** While the BBCI removes several impediments to property acquisition in the form of waiving liens, taxes, and fees, additional funding is needed to support the rehabilitation or new construction of the properties along Braddock Avenue.
- **Financial and Business Training:** Those who were granted ownership of the properties could be bolstered by additional training and education on the fundamentals of starting and operating a small business. This could include courses on business financial literacy, startup resources, marketing, accounting, and more.
- **Job Creation:** Braddock, along with other communities in the Braddock-East Pittsburgh-North Braddock (BEN) region, lost over half its total jobs because of the UPMC Braddock Hospital closure. The population decline has further exacerbated the loss of employers and jobs in the city. Revitalizing and encouraging small business growth can help support new job opportunities for the region.
- **Continued revitalization:** The proposed project covers only seven properties along Braddock Avenue. Significant effort is needed to extend this into other areas of Braddock and the greater Mon Valley region with commercial and residential decline.

DEMOGRAPHIC AND COMMUNITY NEED PROFILE

Braddock was severely impacted when the UPMC Braddock Hospital, the largest employer in the city, closed in 2010 and over 650 employees were affected. By 2010, however, there were already signs of decline in the area, with several vacant storefronts on Braddock Avenue^{xiv}. The population of the Mon Valley has shrunk approximately 1% each year since 1990^{viii} and Braddock has seen over a 90% decline in population to 1,721 in 2020, down from 20,879 in 1920^{xv}. Population loss often results in commercial business loss, and thus employers and businesses have left as the population shrinks.

Braddock Avenue has seen a significant decline from its pinnacle in the 1920s to 1940s. What was once a bustling street of movie theaters, apparel stores, and bars has since become empty, run down, and devoid of life. At one point, 75 structures were eligible for the National Register of Historic Places. 23 of those structures now have caved-in or hole-ridden roofs, and there have been no sustained efforts to attain national historic designation. Demolition on 15 of the properties was slated for late 2014^{xvi}. The rehabilitation of these properties is critical to renew the avenue's commercial activity.

In addition, job creation and growth that provides opportunities for residents is necessary for wealth development and revitalization for Braddock. 94.9% of Braddock residents travel outside of their city for work^{xvii}. Workforce training and development would also equip the residents to take on roles with incoming new businesses and employers. The following two areas, 'support for local small business development' and 'providing education and workforce development' were identified through community surveys as top factors for success in economic revitalization for the region^{xviii}.

CHALLENGES AND BARRIERS

- **Transportation:** Local transit reduced services to Braddock from the Pittsburgh city center in 2009 as population declined. With these reduced services, it will be difficult for Braddock to attract customers and employees. Transportation for employees as well as shoppers will be necessary to sustain new businesses, as well as the city's growth and revitalization. This includes pedestrian friendly pathways and other mobility infrastructure to support people getting to Braddock Ave.
- **Limited funding:** The properties being transferred range in their state, with some requiring either substantial rehabilitation or complete demolition and reconstruction. Significant additional funding is needed for the repair of these deteriorated properties to progress them to a state where a business can operate in the building. Insufficient funding and delayed timelines may result in the business failing to ever open or operating under major financial constraints for an extended period.
- **Lack of resources:** In addition to a lack of funding, there is currently a lack of resources and training for individuals interested in new business development and ownership. The lack of knowledge and resources may hinder the efficiency and success of the new businesses operating in the properties. This may result in a premature closing or additional losses to the city in the form of lost taxes or payments if the business is unable to succeed.

PROJECT NARRATIVE/DESCRIPTION

In efforts to revitalize Braddock Avenue, the BBCI selected seven businesses from a public RFP application to take ownership of currently abandoned properties along Braddock Avenue. This process also included identifying possible properties for revitalization. BBCI identified a total of seven properties, including five properties that will undergo major renovations, as well as two properties that were identified for new construction. In partnership with the RAAC and ACED, the BBCI was able to facilitate the property ownership transfer to the new owners and remove otherwise onerous financial encumbrances to ownership, including waiving tax liens, water and sewer bills. The ownership transfer however, is just of the property title itself. For all the units,

there is significant work needed to clean, repair, and rehabilitate structures to house a new business or store front.

Funding is needed first to support the rehabilitation and/or construction of new buildings. In the cases where the property is too deteriorated to be repaired, demolition and new construction is needed. Property remediation costs could be as high as \$900,000. This includes clearing the property, making structural repairs, and getting the property to a 'ready state'.

In addition, educational training and resources are needed to support the individuals and companies purchasing the sites in launching their businesses. Omicelo Cares, now Neighborhood Allies, is a local nonprofit organization that provides community financial and business training. They have supported one cohort with training on how to work with financial institutions, understand land use and permitting, and more. Additional funding would support ongoing courses and expanded resources to support new business owners.

The long-term goal of this project is to replicate the process of ownership transfer for otherwise neglected properties in other areas of the Mon Valley region. Communities, in partnership with local municipalities, would need to establish a process for ownership transfer and the waiving of unpaid fees to support new business development and the revitalization of abandoned commercial properties.

OUTCOMES AND METRICS

The long-term goal of this project is the redevelopment and revitalization of commercial activity in Braddock. The following metrics could be used to assess the success of this project:

- **Time to breakeven:** The time it takes from investment to initial business operation, and then reaching a breakeven point.
- **Job creation/retention:** Number of jobs created or retained from the new businesses.
- **Foot traffic:** Increased foot, vehicle, and bus traffic along Braddock Ave. associated with new business development.
- **Business survival rate:** Rate of business success measured after a defined period following funding distribution.
- **Business growth metrics:** Metrics such as annual revenue, profitability, etc.
- **Property values:** The creation of new businesses along Braddock Avenue should support a significant increase in property values for the surrounding residential area, as well as for other neighboring commercial land.

RECOMMENDATIONS

- **Establish guidelines and share learnings for future programs:** As the region seeks to expand BCCI's approach for ownership transfer and new business development, any learnings and guidelines from this initial pilot should be documented and shared across communities.
- **Develop resources for new business owners:** These include recommended trainings, suggested timelines, and a 'checklist' of activities for business operation, recommended

suppliers, and a list of local partners and organizations that can support the business startup process. Resources will provide a foundation for new business owners to start off on the right foot.

- **Connecting to nearby communities and industry:** The businesses in Braddock Avenue should not operate in isolation. Connecting new developments to their respective industries and other communities is needed for the long-term sustainment of the businesses.

PROJECT IV: MICROGRID OPPORTUNITIES

NEEDS SUMMARY

Southwestern Pennsylvania is uniquely vulnerable to a range of health and infrastructure risks related to global climate change. Annual rainfall in Allegheny County is anticipated to increase by two inches on average by 2050, which will place a burden on stormwater electrical systems. Storm damage, treefall, and landslide risk may increase due to the region's tree cover and hilly terrain, further threatening electrical infrastructure.

By 2070, Allegheny County can also expect to see a yearly average of 15-30 days above 95 degrees F, which will result in higher cooling costs and reduced air quality. Heat waves lead to electricity demand increases of 10-20% (per added degree C), which Mon Valley electrical systems are not equipped to accommodate^{xxix}. Ground-level ozone is expected to worsen with the effects of climate change. These impacts are intensified for Allegheny County, which experienced 179 days of elected particulate pollution in 2022. The Mon Valley may experience the steepest escalation in poor air quality, since four of the ten most highly toxic industrial facilities in the county are located within its boundaries: Thermal Transfer Corp. (Duquesne), TMS International LLC (Braddock), Holtec Manufacturing (East Pittsburgh), and U.S. Steel Mon Valley Works Edgar Thomson Plant (Braddock)^{xx}.

One way to prepare the Mon Valley Communities for these anticipated climate impacts is to promote clean, renewable energy systems such as solar photovoltaic (SPV). Currently, only 6.1% of energy consumption in Pennsylvania is from renewable energy sources^{xxi}. According to a 2020 Allegheny County Health Department report, four of the six criteria pollutants defined in the EPA's National Ambient Air Quality Standards are primarily or substantially sourced from power plants^{xxii}. By divesting from electrical sources that contribute to particulate pollution and carbon emissions, communities can meet increased demand while building resilience to climate-related disruptions.

DEMOGRAPHIC AND COMMUNITY NEED PROFILE

Recognizing the risks outlined above, the Forest Hills Borough Council adopted a climate action plan that establishes a goal achieving net zero carbon emissions throughout the community by 2050. Three core elements of this action plan are to create an interconnected interactive solar PV grid, implement residential community virtual net metering for all residential properties, and install grid-integrated SPV on all flat commercial property roofs. A survey of Forest Hill residents indicated that 95.4% rely on natural gas as their main source of heating, but also that 24.6% had selected a 100% renewable energy provider and that 49.4% would consider a SPV installation on their home^{xxiii}.

Although Forest Hills is the only Mon Valley municipality to formally adopt a climate action plan, many other communities are politically active on environmental issues; advocacy groups such as North Braddock Residents For Our Future and the Group Against Smog and Pollution (GASP) demonstrate the potential for local activation on environmental issues that affect community health, wellbeing, and quality of life.

All Mon Valley Communities (excepting Rankin) are members of CONNECT, which advances solar transition and vehicle fleet electrification as core elements of municipal resiliency. These municipalities have shown interest in identifying energy- and climate-focused projects that have both a comparatively low cost and a compelling use case for community benefit.

CHALLENGES AND BARRIERS

Solar microgrid projects present several barriers that reflect technical, regulatory, and community complexities:

- **Land Acquisition:** Challenges related to securing and purchasing land and/or building space that is suitable for solar installation, particularly in areas where parcel ownership is fragmented, disputed, or unclear or where there is widespread under-maintenance of residential structures.
- **Lack of Financing Options:** SPV microgrid infrastructure entails high upfront investment costs, including solar panels and battery energy storage, often without assistance from traditional lenders that do not have a model for financing innovative energy projects or community-based initiatives. There is also a lack of clarity surrounding the ownership and maintenance of the systems once they have been installed.
- **State-Level Restrictions:** The PA regulatory landscape favors established traditional utility providers in net metering and energy sale restrictions, placing community-based projects at a disadvantage. PA law does not permit community solar projects, which creates a disproportionate barrier for lower-income residents who cannot afford to install SPV infrastructure on their own properties.
- **Corporate Resistance:**
 - PA's energy market relies on centralized utility providers (including Allegheny County's Duquesne Light Company) that have been resistant to integrating microgrids into their existing infrastructure. Providers are not interested in promulgating two-way customer traffic, since interconnection would require transformer relocation, conductor upgrades, and adjustments to electricity rates. Utilities have not established protocols for selling surplus energy back to the grid - a mechanism that is often used to offset costs in successful community microgrid projects.
 - In recent years, due to the perceived threat of electrification projects, gas utility providers have restricted the quantity and nature of data they share about usage. This makes the estimation of emissions and energy usage associated with gas consumption, as well as the planning for transitioning to renewable energy sources, more challenging.
- **Existing Challenges:** These communities often face more fundamental challenges associated with energy, such as lacking energy efficient appliances or basic home weatherization. These issues should be addressed before introducing more innovative or complex initiatives such as microgrids and SPV.

- **Neighborhood Pushback:** Residents are often concerned about potential property devaluation, the aesthetic impact of solar panel installation, the reliability/affordability of solar energy, and the environmental impact of microgrid infrastructure on local species. Particularly in historically marginalized areas, local advocates and officials may also be worried about whether access to cost savings and other benefits related to the microgrid project will be distributed equitably among residents. Despite these concerns, strong championship by a local leader and buy-in from the entire municipal council are often required to advance this type of project.

CURRENT PROJECT STATUS

Despite the challenges outlined above, community-based microgrid projects have the potential to grant municipalities increased energy resilience while supporting their carbon emission reduction goals. The following activities have been formally codified in the Forest Hills climate plan, which could serve as a model for a shift toward solar PV in other Mon Valley communities:

- Establish local technical/financial assistance programs to aid homeowners with financing solar PV system purchase, installation and integration into the electric grid
- Install solar panels throughout the community, along with solar microgrid pilot in collaboration with Duquesne Light Company
- Establish municipal cooperative action mechanisms for residences to adopt solar PV electricity that is locally generated but not on individual residences (in order to support the community-based generation model)
- Build infrastructure to support electric vehicles, including solar PV canopies and electric vehicle charging stations in public parking lots

In 2023, a small working group from Duquesne Light, Siemens, EOS, and Forest Hills municipal officials confirmed that Duquesne Light does not have an interconnection protocol or tariff in place to facilitate community microgrid projects, and was not open to negotiating those mechanisms at that time. Since Duquesne Light's infrastructure does not accommodate two-way traffic, the installation of a community microgrid would require an upfront municipal investment that is neither politically or financially feasible for any of the Mon Valley Communities. Due to resistance from the state legislature and local utility providers, it may be decades before SPV microgrid projects become a reality for communities in the Mon Valley.

FORMATIONAL QUESTIONS

When considering whether a community microgrid project is feasible for a particular municipality or neighborhood, the following questions may help to guide initial conversations with utility providers, local officials, residents, and other stakeholders:

- Which person or entity will serve as the primary point of contact for the project, whether at the planning stage or during its implementation?
- What is the target consumer audience for microgrid? Would the project service only residential structures, or also commercial and/or industrial structures? What are peak energy usage times and how would the community handle the duck curve?

- What level of investment is present at the municipal level? Does the project already have buy-in from local officials, or is interest primarily driven by residents?
- What level of compliance is expected from the current electrical utility provider? Is the provider a committed and/or vocal partner on the project? Is any political and/or financial resistance from the provider anticipated?
- What level of interest is present among residents and other local stakeholders? Have activities been undertaken to engage them and educate them about the potential benefits?
- What activities will move the project forward and achieve local buy-in? Are resources available to perform energy audits, host educational sessions and community meetings, or conduct solar feasibility assessments?
- Will the project include new construction, or retrofitting only?
- What is the proposed generation method? (*SPV remains the primary recommended generation method in the SW PA region.*)
- What existing code requirements (such as those governing battery storage and SPV installation, if present) would impact the feasibility of this project?
- Which entity will be responsible for maintaining the microgrid, making repairs, monitoring service, and other essential functions? (Direct municipal management of microgrids is only recommended if resource capacity can be established.)

RECOMMENDATIONS

Since this project is at a nascent stage, the following recommendations are organized by their feasibility in the short-, medium- and long-term. The journey to community SPV in Southwestern Pennsylvania and the Mon Valley will require substantial effort from advocates and citizens at the local and state levels.

Short-Term

- Advocate for the inclusion of sustainability initiatives in municipal comprehensive plans
- Take advantage of existing community sentiment supporting regulation and opposing environmental degradation
- Look to other communities (e.g. Montgomery Co., MD; Cuyahoga Co., OH) to formulate a large-scale vision
- Educate residents about the availability of tax credits for energy audits and low-cost energy efficiency improvements such as switching to LED light bulbs or adding home insulation
- Emphasize the public safety and self-sufficiency benefits of renewable energy projects, especially reducing the risk of grid disturbances or outages, and the provision of standby or backup power in emergency situations

- Assessment of vulnerability and planning actions to mitigate vulnerabilities and build resilience in electrical and utility infrastructure, public works, stormwater systems, etc.)

Medium-Term

- Education of municipal officials, businesses, and other community stakeholders about the benefits of clean power
- Conduct surveys and provide resident in-person engagement opportunities in each community to better understand behaviors/perceptions related to in-home energy consumption, utility costs, solar power energy, and sustainability initiatives
- Acquire funding to support rapid solarization efforts of over 25 MW projects on large, scattered sites throughout the communities, which will also create more jobs
- Advocate for improvements to housing stock and weatherization of structures to increase the efficiency of SPV installation
- Pursue solar feasibility assessment that includes surveyance of residential and commercial roofs and analysis of residential building characteristics (square footage, age, and condition)

Long-Term

- Pursue regulatory redress and continue to support legislation that allows for the development and use of community solar, making renewable energy options more financially feasible
- Establish a feed-in tariff with the providers to establish a wholesale rate for owners of small renewal projects, and ideally allows for demand-sensitive price adjustment and sale of excess electricity
- Apply pressure to Duquesne Light Company to establish an interconnection protocol, by emphasizing the demand from multiple communities

APPENDIX I: DEMOGRAPHIC DATA TABLE

	U.S.	PA	Braddock	North Braddock	East Pittsburgh	Rankin	Clairton	Duquesne	Forest Hills	Turtle Creek
Unemployment ⁶	3.5%	3.8%	29.4%	15.6%	5.4%	18.2%	7.1%	6.7%	8.2%	14.5%
Median Income ⁷	\$74,580	\$72,210	\$27,212	\$39,885	\$35,483	\$29,107	\$41,301	\$35,483	\$82,892	\$42,344
Residents over 65 ⁸	17.5%	19.6%	20%	11.7%	22.9%	13.1%	22%	12%	22.9%	25.4%
Per Cap. Income ⁹	\$41,261	\$64,506	\$17,645	\$37,338	\$21,343	\$23,483	\$25,125	\$21,343	\$55,604	\$23,199
Poverty Rate ¹⁰	11.5%	11.8%	30.9%	24.5%	31.6%	35.6%	23.1%	31.6%	3.7%	27.9%
Disability Status ¹¹	13.5%	25%	32.9%	22%	19.7%	27%	21.4%	22.4%	11.7%	25.7%

⁶ U.S. Census Bureau; American Community Survey, 2022 American Community Survey 1-Year Estimates, Table DP03.

⁷ Ibid., Table S1903.

⁸ Ibid., Table S0101.

⁹ Ibid., Table B19301.

¹⁰ Ibid., Table S1701.

¹¹ Ibid., Table S1810.

High School Grad. ¹²	91%	92.2%	93.9%	93.8%	98.7%	86.9%	94.4%	98.7%	98.3%	84.6%
Bachelor's Degree ⁷	37.7%	35.1%	11.7%	14.9%	21.3%	23.1%	19.7%	21.3%	60.3%	12.2%
Median Property Value	\$348,079	\$244,500	\$43,800	\$52,900	\$64,100	\$81,700	\$54,900	\$64,100	\$171,300	\$71,700

¹² Ibid., Table S1501

APPENDIX II: HOUSING DATA TABLE

The chart below provides information on select housing characteristics for the broader Mon Valley Region according to the 2020 U.S. Census U.S. Census Bureau 2020 Decennial Census Table H1¹³.

	U.S.	PA	Braddock	North Braddock	East Pittsburgh	Rankin	Clairton	Duquesne	Forest Hills	Turtle Creek
Median Gross Rent	\$1,300	\$1,116 ± \$9	\$912 ± \$340	\$535 ± \$66	\$802 ± \$209	\$563 ± \$196	\$925 ± \$192	\$681 ± \$78	\$991 ± \$92	\$677 ± \$159
Homeownership Rate	65.2%	69.1% ± 0.3%	37.0% ± 11.7%	50.0% ± 7.7%	28.8% ± 10.0%	37.0% ± 11.7%	59.7% ± 7.6%	44.6% ± 6.0%	70.0% ± 5.7%	36.8% ± 7.9%
% of Housing Values less than \$50,000	5.5%	2.9%	54.6%	43.9%	28.3%	21.4%	43.5%	43.6%	1.8%	19.6%
% of Housing Values less than \$99,999	6.6%	6.8%	33.2%	44.5%	42.5%	51.6%	33.9%	46.2%	11.2%	56.6%
# of Housing Units	143,772, 895	5,742,828	1,011	2,418	1,005	987	3,549	2,845	3,390	2,791
Vacancy Rate	9.7%	7.8%	23.1%	16.0%	16.9%	16.4%	19.2%	16.0%	6.9%	13.4%

¹³ U.S. Census Bureau 2020 Decennial Census

APPENDIX III: LIST OF STAKEHOLDERS

Allegheny County Economic Development (ACED): Local agency supporting economic and residential development in Allegheny County. Potential funder and data partner for community-level economic outcomes.

Allegheny Conference: Local organization committed to improving the Greater Pittsburgh region's economic future and quality of life. Potential partner for MVEZ and Braddock Community Business Initiative.

Center for Community Progress: National nonprofit dedicated to tackling vacant properties. Potential partner for land banks and property stewardship organizations.

CONNECT (Congress of Neighboring Communities): Policy and program incubator composed of contiguous municipalities within Allegheny County. Focused on building relationships, knowledge, and experience between leaders of communities that share common interests in order to develop widely actionable solutions.

Mon Metro Chamber of Commerce: Membership organization supporting businesses and entrepreneurship in the Mon Valley Region. Potential partner for skills-building and resource management/development projects.

Mon Valley Initiative: Local organization providing housing counseling and workforce development. Potential partner for MVEZ and Under-Maintained Properties.

Neighborhood Allies (Omicelo Cares): Engages Pittsburgh area residents and organizations with tools, capital programs, and resources to expand opportunities.

Network for Sustainable Business/PA and Appalachia Sustainable Business Networks: Coalition fostering innovation, economic resilience and community well-being in the State of Pennsylvania and the broader Appalachian region. Potential partner for MVEZ and Braddock Community Business Initiative.

PA Housing Allowance: Statewide coalition providing leadership, resources, policies for all PA to access safe and affordable homes. Potential partner for Under-Maintained Properties.

PA Solar Center: State organization committed to expanding solar energy across Pennsylvania. Potential partner for microgrid and other sustainability projects.

Pennsylvania Department of Community and Economic Development (DCED): State department administering the Enterprise Zone program and promoting the shared prosperity of Pennsylvania communities through sustainable development initiatives. Possible funder of MVEZ and related economic development projects.

Rebuilding Together Pittsburgh: Local organization supporting the physical rebuilding and rehabilitation projects for low-income individuals. Current partner of Tri-COG Land Bank for lead safe home demolition and rebuilding.

Redevelopment Authority for Allegheny County (RAAC): Allegheny County agency that acquires and prepares real estate properties for economic development, including managing financing and facilitating the transformation and reuse of vacant, abandoned properties

Steel Valley Authority: Local organization supporting layoff aversion through business stabilization and workforce training. Potential partner for MVEZ and other projects.

Tri-COG Land Bank: Local organization supporting the transition of abandoned properties into local land banks. Potential partner for Under-Maintained Properties.

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