



17 Asset Management



RIVERSIDE
CENTER FOR
INNOVATION

THE CASE FOR INTENTIONAL INVESTMENT IN PITTSBURGH:

BIPOC ENTREPRENEURSHIP

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8 DECENT WORK AND
ECONOMIC GROWTH



THE CASE FOR INTENTIONAL INVESTMENT IN PITTSBURGH: BIOPOC ENTREPRENEURSHIP

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ABOUT 17 ASSET MANAGEMENT

17 Asset Management is a product design firm that bridges financial assets and investable impact opportunities. We advise, design, and manage financial solutions for investors, corporate clients, asset managers, and city governments to achieve both long-term financial returns and meaningful progress toward our purpose of an equitable and prosperous global society. www.17assetmanagement.com

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ABOUT RIVERSIDE CENTER FOR INNOVATION

Riverside Center for Innovation (RCI), established as the North Side Industrial Development Company in 1983 and now doing business as Riverside Center for Innovation, is a 501(c)3 non-profit organization located in the City of Pittsburgh's North Side. RCI is proud to be one of the region's premier community economic development agencies. RCI is the leading and most comprehensive, full-service small business incubator, targeting women, minorities, veterans, LGBTQ, and other disadvantaged ventures in Southwestern Pennsylvania. RCI provides a single point of contact for our target business owners seeking information to start, sustain and grow their business.



EXECUTIVE SUMMARY

In line with its mission to uplift Black and Brown communities economically, the Riverside Center for Innovation (RCI) recognizes the need for consistent, aligned sources of capital that would enable Black and Brown entrepreneurs to create mature, sustainable companies in Pittsburgh. 17 Asset Management (17AM) was engaged to co-design an optimal financial structure to provide capital for entrepreneurs that receive business development services from RCI. This financial structure was largely informed by the findings in this research report. **This report seeks to challenge assumptions around Pittsburgh innovation by introducing models of change that include Black, Indigenous, People of Color (BIPOC) communities and place-based sustainability.** It also intends to provide insight for anchor institutions, investors, and policymakers to help Pittsburgh become an intelligent, human-centered city.

Pittsburgh is an innovation hub specializing in some of the most exciting technologies in the world, such as autonomous vehicles, robotics, and AI, but there is more to the city than meets the eye. Until about 1946, Pittsburgh was considered a “Steel City,” home to a diverse mix of White, Black, and Latinx people that manufactured iron and steel. Industrialists Andrew Carnegie, Henry Clay Frick, Andrew Mellon, and Charles M. Schwab achieved massive amounts of wealth from this type of business. ¹

After industry-wide improvements reduced the need for steel, demand for Pittsburgh steel and iron dwindled.^{2,3} These materials lost value in the new economy and Black people were the first to be fired from mills. From there, they were shoved out of Pittsburgh’s neighborhoods via gentrification. Since the 1940s, problems for BIPOC Pittsburghers have only deepened.^{4,5}

¹ Founder & Chairman of Bethlehem Steel

² Purdy, Jacqueline (Sept 2018). “5 Things You May Not Know About the Men Who Built America.” History Channel <https://www.history.com/news/5-things-you-may-not-know-about-the-men-who-built-america>

³ Stoller, Matt (Oct 2019). “The Rise and Fall of Andrew Mellon.” The American Prospect. <https://prospect.org/culture/books/the-rise-and-fall-of-andrew-mellon/>

⁴ McKeever, Amy (Aug 2018). “In the Shadow of the Steel Mill.” Topic. <https://www.topic.com/in-the-shadow-of-the-steel-mill>

⁵ Bednarzik & Szalanski. “An examination of the work history of Pittsburgh steelworkers, who were displaced and received publicly-funded retraining in the early 1980s.” (2012).

Pittsburgh's racist origins and low-quality neighborhoods of color have led to an exodus of BIPOC communities. Today, young BIPOC Pittsburghers do not see a future for themselves in the city and are moving to more diverse, cities like Atlanta, New York, or San Francisco. While impressive corporations and universities call Pittsburgh home, White-led organizations have hoarded the spoils of Pittsburgh's innovation economy. Historically, most anchor institutions have not actively sought Black or Brown participants through hiring or academic recruitment, which has hurt BIPOC communities' economic prospects and makes them feel excluded. **BIPOC populations will continue to leave Pittsburgh if anchor institutions do not change the way they operate.**

Beyond traditional employment, entrepreneurship is another way to increase BIPOC household income and enhance their economic autonomy. **Blacks might be more likely than Whites to start businesses, but their lack of business connections and inability to supersede investors' biases cause Blacks to struggle more as entrepreneurs than Whites.**^{6,7}

Our stakeholders revealed that some of BIPOC founders' top challenges include:⁸

01

Lack of business connectivity, such as corporate business partners, mentors, anchor institutions, and a lack of networking opportunities;

02

Lack of business support & training, such as staff, offices, or business acumen; and

03

Lack of capital for growth and daily operations.

⁶ Turner, Ani (2018). "The Business Case for Racial Equity (pg. 29, 30)." Kellogg Foundation. https://altarum.org/sites/default/files/uploaded-publication-files/WKKellogg_Business-Case-Racial-Equity_National-Report_2018.pdf

⁷ Treuhaft (2016). "Equitable Development: The Path to an All-In Pittsburgh." PolicyLink. https://www.policylink.org/sites/default/files/report_pittsburgh_FINAL_PDF_0.pdf

⁸ Barnes, Tawny. "Success factors for minority small business sustainability." Diss. Walden University, 2019. (pg.107).

BIPOC businesses tend to have a difficult time **acquiring their first customers** due to their lack of business connections at anchor institutions and multinational corporations. BIPOC businesses also lack **“soft tissue” infrastructure** to sustain themselves and operate efficiently, such as staffing, legal services, administrative services, office space, market research, financial literacy, and business training.^{9,10} Finally, BIPOC founders are denied access to finance, which limits their ability to launch and scale their businesses.^{11,12} BIPOC founders typically do not have wealthy friends or family that can help them launch. Therefore, they tend to bootstrap or seek grants and loans, which are highly competitive and short-term.^{13,14} **Go-to-market capital is almost non-existent for BIPOC people.**¹⁵

In most cases, investors and anchor institutions do not understand what BIPOC people have to offer the City of Pittsburgh culturally and financially. RCI seeks to bridge this knowledge gap and provide a structure that allows stakeholders to invest directly into BIPOC communities. These efforts will help Pittsburgh turn a new page in its history—one in which it acknowledges its racist origins, makes reparations, and invests in communities that have been left out in the past.

Our intended audience is investors and stakeholders with an interest in Pittsburgh and Southwestern Pennsylvania. We hope that by reading this report, they better appreciate the BIPOC experience in Pittsburgh and understand how capital can address issues around BIPOC entrepreneurship and economic development.



9 Dubb (2018). "In Pittsburgh, Black Community Organizes to Close Racial Equity Gap." NQ. <https://nonprofitquarterly.org/pittsburgh-black-community-organizes-close-racial-equity-gap/>

10 Pittsburgh Black Elected Officials Coalition (2017). "Pittsburgh Peace & Justice Initiative (pg. 38)." https://pbeoc.org/wp-content/uploads/2018/01/PBEOC-Phase-2-_final_1_8_18.pdf

11 Howell et al (2019). "Pittsburgh's Inequality Across Gender and Race." City of Pittsburgh. <https://www.socialwork.pitt.edu>

12 May et al (2018). "Pittsburgh Equity Indicators, Annual Report." The City of Pittsburgh. https://pittsburghpa.gov/equityindicators/documents/PGH_Equity_Indicators_2018.pdf

13 University of San Diego (April 2020). "Guide to Funding Women- and Minority-Owned Businesses." USD News Center. https://www.sandiego.edu/news/detail.php?_focus=76136

14 Organisation for Economic Co-operation and Development. New approaches to SME and entrepreneurship financing: Broadening the range of instruments. OECD Publishing, 2015.

15 Stakeholder interviews facilitated by 17AM.

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Introduction

For about 100 years, Pittsburgh was known as a “Steel Giant.” It was home to a population of mostly White immigrants and provided decent-paying jobs to blue-collar workers. Between 1916 and 1940, Black people moved to Pittsburgh in droves (“The Great Migration”) and were able to provide for themselves as decently paid steelworkers. Certain neighborhoods became predominantly Black, such as the Hill District and Homewood, and were starved of development funding.¹⁶

In response to German and Japanese competition in the steel industry and the introduction of “minimills,” which used salvaged steel and had lower capital costs, the demand for Pittsburgh steel all but disappeared.¹⁷ Pittsburgh’s economy collapsed in the 1970s and 80s. Almost all steelworkers lost their jobs and Black people were pushed out of the city due to racism, gentrification, and a lack of economic opportunity.

According to stakeholders, Pittsburgh is still thought of as an “Old White Boys Club,” reflecting the same racist attitudes and trends that hit BIPOC people hardest in the 1970s. Today, Black and Brown youth leave Pittsburgh after college or graduate school because they cannot envision a future for themselves in the city.¹⁸ They tend to move to coastal cities where they can earn competitive salaries, live in the thick of innovation, and be appreciated for their diverse backgrounds.

“Steel mill culture” refers to the concept that if one desires to advance one’s economic status, someone from one’s family must join a high rank, such as a corporate executive board. It is unusual for Black and Brown Pittsburghers to be in positions of power. BIPOC people are uncomfortable “rocking the boat” or even standing together for fear of arousing White suspicion.¹⁹ In short, Pittsburgh is still a racist city whose modern industries outsource jobs rather than hire locally, thereby depriving BIPOC people of economic opportunities.

¹⁶ Homewood Community Development Collaborative (2021). “Homewood’s History.” <https://homewood-collaborative.org/homewood-history/>

¹⁷ Chavez (1981). “The Rise of Mini-Steel Mills.” *New York Times*. <https://www.nytimes.com/1981/09/23/business/the-rise-of-mini-steel-mills.html>

¹⁸ Idia (2019). “The Pittsburgh area has stark racial inequities. Black Pittsburghers face a key question: Should they leave?” Public Source. <https://www.publicsource.org/the-pittsburgh-area-has-stark-racial-inequities-black-pittsburghers-face-a-key-question-should-they-leave/>

¹⁹ Stakeholder interviews facilitated by 17AM.

Pittsburgh is often praised for its innovation hubs located within anchor institutions like Carnegie Mellon University (CMU) and the University of Pittsburgh (U Pitt). These universities have long focused on training their students on emerging technologies like **autonomous vehicles, robotics, and artificial intelligence**, which has attracted record totals of R&D grants and research funding from the National Science Foundation and National Institutes of Health. However, startups that emerge from Pittsburgh's innovation hubs typically leave the city in order to achieve their full economic potential in coastal cities. While Pittsburgh is a midwestern city and is out of touch with high growth economies in New York or San Francisco, it is possible that by deconstructing its racist institutions and investing in BIPOC people, it can return to its former glory.

Impressive corporations like Duolingo, Alcoa, Kraft Heinz, and Highmark Health are also located in Pittsburgh, but neither universities nor corporations actively seek Black and Brown students as job candidates, which starve BIPOC communities from the few steady streams of wealth flowing in Pittsburgh.²⁰

In this city, too many people of color live in poverty, cannot feed their families, and cannot build generational wealth. Black and Brown Pittsburghers are more likely than their White counterparts to start a business, either because they are filled with an entrepreneurial spirit or because **they need to supplement their insufficient incomes**. However, they struggle to launch or scale due to a **lack of connections, experience, and capital**. Entrepreneurship can be an effective way of giving BIPOC Pittsburghers economic autonomy while also addressing Pittsburgh's sustainability challenges, namely poverty, health, food, housing, and transportation. "

RCI envisions a new type of business development and accelerator program in Pittsburgh. RCI's **Equitable Entrepreneurs' Capital Facility (REEF)** seeks to nurture Black and Brown entrepreneurs in Pittsburgh that can improve the sustainability and racial equity of the City. While other investment firms continue to nurture Black entrepreneurs creating advanced technology, RCI seeks to complete the story.

²⁰ Visit Pittsburgh. "Key Industries and Corporations." <https://www.visitpittsburgh.com/pcma2019/industries-and-corporations/>

RCI's Equitable Entrepreneurs' Capital Facility (REEF) will provide financing and business development support to tech-adjacent and lifestyle businesses that create high-quality jobs in real estate, infrastructure, transportation, healthy food, and workforce development. This model is exactly what Pittsburgh needs in order to lift Black and Brown Pittsburghers out of poverty and create a city that all residents, particularly young BIPOC residents, can be proud to call home.

RCI seeks to help make Pittsburgh a globally recognized innovation city. Pittsburgh could be a pioneer hub for BIPOC entrepreneurs and prosperity. Indeed, the City has partially transitioned from being a point on the Rust Belt to becoming a "Brain Belt City," a tight array of research universities, community colleges, local government, and established companies with robust R&D arms, startups, and venture capitalists, lawyers, and design firms. The activities of all of these actors are mutually beneficial as they all aim to achieve success within their respective organizations and for the city.



Photo Credits: Zachary Anderson on Unsplash

Setting the Landscape: Welcome to Pittsburgh

The History of Pittsburgh: Origins as a Steel Giant

Pittsburgh was one of several U.S. cities that suffered in the 1970s as globalization and modern technology eroded Midwestern manufacturing industries. Prior to this decline, Pittsburgh was an industrial hub for steel production, granting it the name, “**The Rust Belt Renaissance City.**” Growing demand for its natural resources like iron and coal was central to the city's early success. This success helped attract many new residents between 1870 and 1910.²¹

One of these new residents was **Cumberland “Cap” Posey**. Despite being born into slavery, Cap achieved economic success through various ventures and investments in Pennsylvania. After becoming the first African American to receive an engineering license, Cap moved to Homestead, Pennsylvania, in 1883 where he invested in coal boats and created a small mining company called the Delta Coal Company.²¹ These accomplishments and more would earn Cap the status of the richest Black man in Pittsburgh and one of the most prominent figures in the Pennsylvanian coal industry.²² As a result of the city's new residents, local population growth doubled that of the United States. It wasn't until the 1970s that Pittsburgh began to experience major changes in its steel production, which shifted its economy.²³

Following the introduction of new production technologies, like the “minimill,” combined with slowing demand, higher costs, and intense competition, the U.S. steel industry experienced a sharp rise in layoffs. Between 1962 and 2005, the country's steel industry fired 75% of its workforce and Pittsburgh was no exception. From 1970 to 1990, the city lost about 100,000 steel jobs and unemployment reached 18%. Since then, its overall population has steadily decreased.^{24,25,26}

²¹ Dietrich (2008). “A Very Short History of Pittsburgh.” Pittsburgh Quarterly. <https://pittsburghquarterly.com/articles/a-very-brief-history-of-pittsburgh/>

²² Horan, Brianna (2020). “Cumberland “Cap” Posey.” Rivers of Steel. <https://riversofsteel.com/cap-posey/>

²³ Ibid - Dietrich, 2008

²⁴ Wince-Smith, Deborah (2014). “How Pittsburgh shed its Rust Belt Image.” World Economic Forum. <https://www.weforum.org/agenda/2014/08/pittsburgh-rust-steel-city/>

²⁵ De Loecker & Collard-Wexler (July 2016). “The productivity impact of new technology: evidence from the US steel industry.” Microeconomic Insights. <https://microeconomicinsights.org/productivity-impact-new-technology-evidence-us-steel-industry/>

²⁶ Katz & Nowak (2018). “How the Once-Struggling Pittsburgh Is Reinventing Itself as an Innovation Hub.” <https://nextcity.org/daily/entry/how-the-once-struggling-pittsburgh-is-reinventing-itself-as-innovation-hub>

In the 1980s, Pittsburgh's steel industry went through a Depression and unemployment soared. The city never fully recovered, particularly in BIPOC communities. And yet, Pittsburgh's current entrepreneurial assets, such as skilled workers, research institutions, and advanced manufacturing could enable it to compete with twin cities like Detroit or Cleveland. Also, increased city revenues from small and medium-sized businesses could be reinvested in sectors like infrastructure and neighborhood development.²⁷



Photo Credits: William J. Gaughan

²⁷ Andes (2017). "Capturing the next economy: Pittsburgh's rise as a global innovation city." Brookings Institution. <https://www.brookings.edu/research/capturing-the-next-economy-pittsburghs-rise-as-a-global-innovation-city/>



Photo Credits: Dylan Sauerwein on Unsplash

The Pittsburgh Economy: Where is Capital Really Flowing?

The median household income in Pittsburgh was about \$49,000 in 2019 and \$56,000 in the larger Pittsburgh region.^{33, 34, 35} While income levels have grown at nearly double the rate compared to the state of Pennsylvania and the U.S. since 2010, Pittsburgh has seen its population slowly decline over the last few decades.³⁶ From a peak at 676,806 inhabitants in 1950 down to 300,286 in 2019, **the fact that Pittsburgh is ranked as one of the most livable U.S. cities stems from a deep misunderstanding of its economy and people.**³⁷

Between 2000 and 2018, 95,000 fewer people lived in Pittsburgh despite a 24% increase in income per capita for people working within advanced technology. **While Pittsburgh has 7% fewer jobs available in high-wage, advanced tech industries than in 2000, those jobs typically go to White**^{38,39,40} **people.** Also, those high earners tend to leave the city once they accumulate enough wealth. PEW Charitable Trusts describes Pittsburgh as one of the “fastest shrinking cities with rising income,” comparing Pittsburgh to New Orleans, Buffalo, Providence, or Beaumont, all of which have observed similar trends.⁴¹

33 This latest available data for the region is as of 2018 and includes the following ten counties: Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Lawrence, Washington, and Westmoreland.

34 Pittsburgh Region (2021). “Talent.” <https://pittsburghregion.org/doing-business-in-pittsburgh/talent/>

35 U.S. Census Bureau (2019). “United States; Pennsylvania; Pittsburgh city, Pennsylvania.” <https://www.census.gov/quickfacts/fact/table/US,PA,pittsburghcitypennsylvania/INCI10219>

36 Ibid - Fitch Ratings, 2021

37 Biggest U.S. Cities (Feb 2021). “Pittsburgh, Pennsylvania Population History.” <https://www.biggestuscities.com/city/pittsburgh-pennsylvania>

38 Henderson (2018). “The Mystery of Pittsburgh: How Some Shrinking Cities Are Thriving in the New Economy.” PEW Charitable Trusts. <https://www.pewtrusts.org/de/research-and-analysis/blogs/stateline/2018/12/12/the-mystery-of-pittsburgh-how-some-shrinking-cities-are-thriving-in-the-new-economy>

39 Ibid - Andes et al, 2017 (pg. 30).

40 Vibrant Pittsburgh. “The Pittsburgh Regional Workforce Diversity Indicators Report.” http://vibrantpittsburgh.org/Module/News/NewsDetail/The_Pittsburgh_Regional_Workforce_Diversity_Indicators_Report?id=98#gsc.tab=0

41 Ibid - Henderson, 2018

Shrinking Cities, Rising Income

Among metros with little or no population growth since 2000, some are showing surprising economic resilience. Per-capita income growth surpassed the national average of 18 percent.

Metro	Income per capita, 2017	Change in per-capita income, 2000 to 2017 (inflation-adjusted)	Population growth, 2000 to 2016
Barnstable (Cape Cod), MA	\$70,430	36%	-4%
New Orleans	\$49,134	29%	-5%
Beaumont, TX	\$42,480	28%	3%
Springfield, MA	\$49,643	26%	4%
Providence, RI	\$52,271	24%	2%
Pittsburgh	\$53,849	24%	-4%
Buffalo	\$48,314	22%	-3%
Huntington, WV	\$37,646	21%	-2%
Utica, NY	\$42,588	21%	-2%
Davenport, IA	\$47,564	20%	2%

Note: Adjusted for 41.66 percent inflation

Source: Bureau of Economic Analysis, Stateline analysis

© 2018 The Pew Charitable Trusts

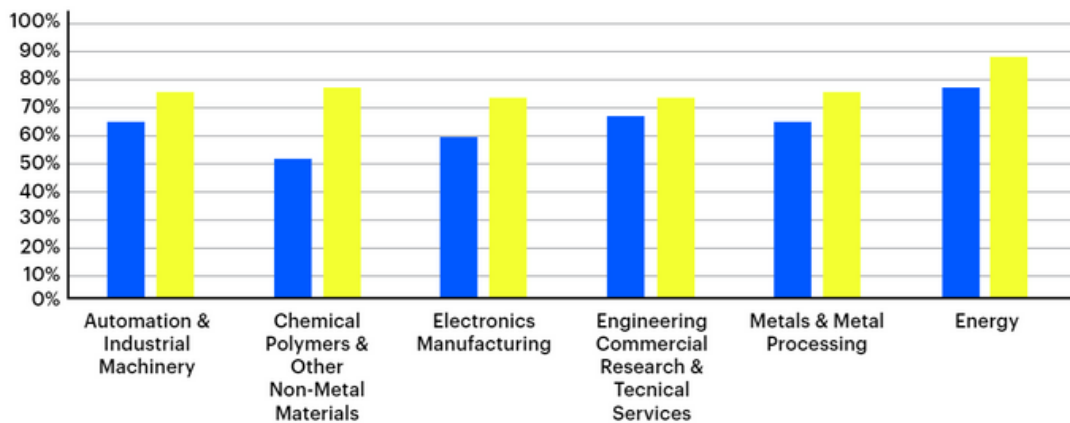
Source: Henderson, 2018

Why are people leaving Pittsburgh in spite of steadily increasing income levels? To understand this problem, it is crucial to inspect the core dynamics of the city's economy, its key industries, and where investments in the region are directed.

As mentioned earlier, Pittsburgh's economy is bolstered by a variety of factors, mostly stemming from its capacities in technology, higher education, and healthcare ("Eds and Meds"). According to the Brookings Institution, there are several advanced industry clusters fueling the Pittsburgh economy, representing 33% of employment within the private sector. These can be broadly classified into three groups: **advanced business and health services, manufacturing, and technology.**⁴² Technology, in particular, is an invaluable asset to the local economy, and is deeply grounded in the Greater Oakland District, also known as "Pittsburgh's Innovation District."

⁴² Ibid - Andes et al, (2017).

Figure A-1: Percentage of industry supplier input mix contained within cluster, for selected manufacturing clusters, Pittsburgh compared to the U.S. average



Source: Andes et al, 2017 (pg. 53).

Indeed, the Brookings Institution describes Oakland as a “naturally-occurring innovation district” thanks to its proximity to public and private anchor institutions, a variety of startups with strengths across STEM disciplines (science, technology, engineering, and mathematics), and other resources that have helped the region become what it is today.⁴³

Despite accounting for only 5% of the city area, Oakland alone employs over 50,000 people or 25% of all jobs in Pittsburgh, with “Eds and Meds” constituting the largest share.^{44,45,46}

In terms of investment, Pittsburgh’s Innovation District and emerging technologies occupy a central role in the city’s economy. Most notably, between 2011 and 2020, hardware, software, life sciences, and robotics received the largest share of investments, where Pittsburgh tech companies attracted over \$7.2B in investment dollars over the last ten years, including \$5.6B over the last five years.⁴⁷ Investments continue to flow from Innovation Works, Birchmere Ventures, Draper Triangle, and Riverfront Ventures while new funds such as Cyto Ventures, Mountain State Capital, Next Act Fund, and Reinforced Ventures have emerged from the woodwork.⁴⁸

⁴³ Ibid - Andes et al, (2017).

⁴⁴ Rosenblatt (2020). “Pittsburgh Innovation District sees \$1.9B in investments.” Pittsburgh Post-Gazette. <https://www.post-gazette.com/business/tech-news/2020/11/17/Innovation-District-Oakland-InnovatePGH-investment-in-tech-life-sciences/stories/202011170178>

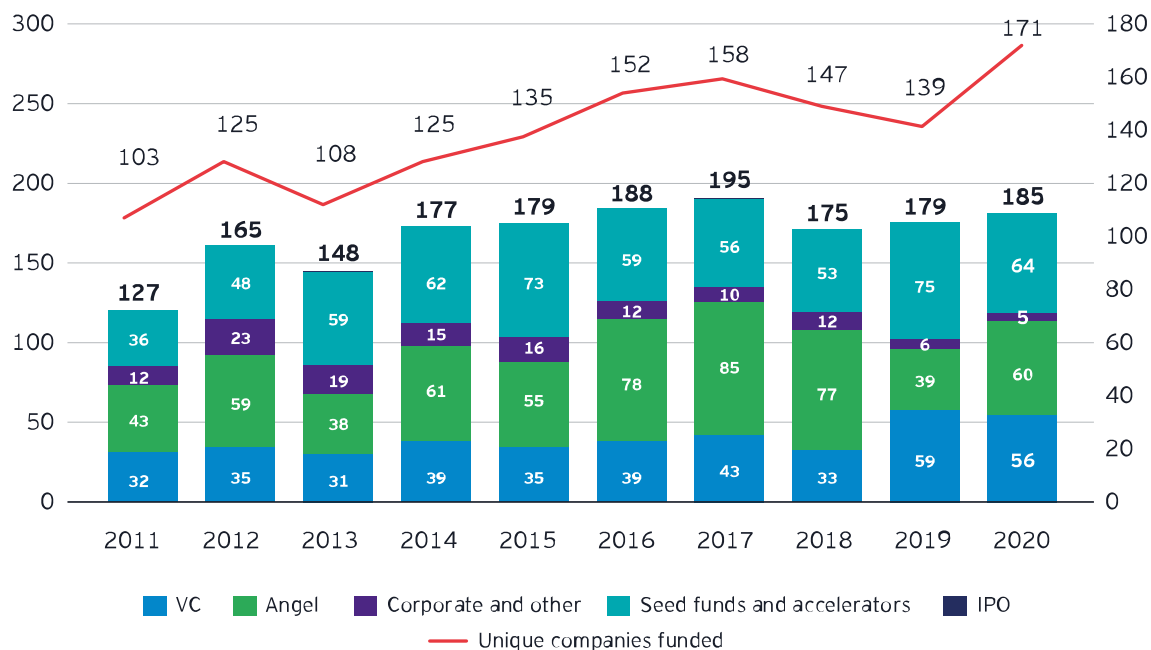
⁴⁵ Machosky (2020). “Pittsburgh ID is driving our future economy and \$1.9 billion in development.” Next Pittsburgh. <https://nextpittsburgh.com/city-design/pittsburgh-innovation-district-is-driving-our-future-economy-and-1-9-billion-in-development/>

⁴⁶ Ibid - Katz & Nowak, 2018

⁴⁷ Hoffman & Lunak (2020). “Investment in Pittsburgh’s technology sector.” EY. <https://www.innovationworks.org/wp-content/uploads/2020/03/2020-IW-EY-Investment-Report.pdf>

⁴⁸ Tolliver (2021). “Pittsburgh tech companies took a hit but still raised \$993 million last year, says report.” <https://nextpittsburgh.com/latest-news/pittsburgh-tech-companies-took-a-hit-but-still-raised-993-million-last-year-says-report/>

Investment rounds and unique companies funded



Source: PitchBook, Innovation Works

Source: Ernst & Young & Innovation Works, 2021 (Company and Round Details)

Large investments also flow into the innovation district itself. Between 2009 and 2018, investments within the Greater Oakland District amounted to \$1.4B in R&D expenditures and from 2020 onwards, is set to increase by another \$1.9B until 2023.⁴⁹ One project involves the expansion of the **Bus Rapid Transit System (BRT)** to help develop local infrastructure and increase mobility across the Pittsburgh region.^{50,51} The BRT project is part of an effort to transform what many locals consider a weakness of Pittsburgh, not only from a business perspective but also from a cultural and social perspective.

⁴⁹ Pittsburgh Innovation District (2019). "State of the Pittsburgh Innovation District." <https://www.pittsburgh-id.com/stateofthedistrict20>

⁵⁰ Ibid - Machosky, 2020

⁵¹ Vellucci (2020). "Port Authority gets \$99.95M for Bus Rapid Transit linking Downtown and Oakland." <https://nextpittsburgh.com/city-design/port-authority-gets-99-95m-for-bus-rapid-transit-linking-downtown-and-oakland/>



Photo Credits: Jeffrey Beall

However, many Pittsburghers believe that these efforts are insufficient and if not expanded, will continue to drive people away from the city. A chief issue in this discussion is the allocation of capital. Certain industries and communities are excluded from these capital flows.

For example, “**lifestyle businesses**” are fundamental to Pittsburgh’s economy but are not given importance by most investors. A lifestyle business can be defined as a business that is created and operated by its founder in order to help them maintain a particular income level, earning just enough revenue to meet the founder’s basic needs.⁵² In contrast, **growth businesses** prioritize economic growth and profits; founders then design their lives around their business endeavors.^{53, 54} As expected, lifestyle businesses can be found within a wide range of sectors, including leisure and tourism, food, fashion/beauty, retail, professional services, and the arts. While quite different at first blush, these industries share an important feature: **they are all stepping stones to place-based economic growth and social change.**

⁵² Magister, Holly. “Lifestyle Business.” Exit Promise. <https://exitpromise.com/lifestyle-business/>

⁵³ Peters et al. “The importance of lifestyle entrepreneurship: A conceptual study of the tourism industry.” PASOS. *Revista de Turismo y Patrimonio Cultural* 7.3 (2009): 393-405. (pg. 398)

⁵⁴ Truex (2020). “What Is a Lifestyle Entrepreneur?” The Balance Small Business. <https://www.thebalancesmb.com/how-to-become-a-lifestyle-entrepreneur-4163947>

In fact, lifestyle businesses go beyond the achievement of personal fulfillment and a work-life balance. Founders of lifestyle businesses become entrepreneurs after having lived as a consumer, looking to either convert their life experiences into a profession or provide solutions to where they have observed consumer needs. In other words, **lifestyle founders are uniquely qualified to build human-centered businesses in human-centered cities.** Growth-oriented entrepreneurs would benefit from partnering with lifestyle founders, as the latter can provide insight into hidden consumer needs and give rise to new business offerings.

Expanding on the idea of product and service innovation, lifestyle entrepreneurs also drive community development and in Pittsburgh, **the sustainability and effectiveness of its innovation district.** With the goal of maintaining residents' quality of life, lifestyle businesses pay special attention to the values, norms, and shared resources in their social environments. ^{55,56,57}

Naturally, the communities where lifestyle entrepreneurs live and operate play an essential role in maintaining their personal satisfaction across several dimensions, including **family, religion, government, and other spheres relevant to community well-being.** In a 2006 paper, Iowa State University researchers cited a 1998 study that examined community and home-based enterprises and found that "[a]s visible community members, communitarian entrepreneurs were important parts of community building and a powerful element in processes of social change."

We see Pittsburgh⁵⁸ as a hub for technological innovation, but falls short in advancing social and economic development. Statistics on investment flows combined with our discussions with stakeholders from the public and private spheres revealed that Pittsburgh fails to recognize the importance of its lifestyle

⁵⁵ Ibid - Peters et al, 2009, (pg. 400)

⁵⁶ OECD (2004). "Promoting Entrepreneurship and Innovative SMEs in a Global Economy." <https://www.oecd.org/industry/smes/31917899.pdf>

⁵⁷ OECD (2004). "Promoting Entrepreneurship and Innovative SSih (2018). "Building An Innovation District: Why Do Lifestyle Businesses Matter." Think Big. <https://thinkbigpartners.com/building-an-innovation-district-why-do-lifestyle-businesses-matter/>

⁵⁸ Marcketti, Sara B., Linda S. Niehm, and Ruchita Fuloria. "An exploratory study of lifestyle entrepreneurship and its relationship to life quality." Family and Consumer Sciences Research Journal 34.3 (2006): 241-259. (pg. 242-3).

businesses and BIPOC communities. In order for Pittsburgh to evolve and prosper, it must broaden its focus beyond technology to include the primary users, developers, and beneficiaries of Pittsburgh's economic spoils. Without city infrastructure connecting residents to necessary amenities, provided largely by lifestyle businesses, Pittsburgh's economic productivity and attractiveness are likely to wane.⁵⁹

The core issue, however, is not the creation of jobs and businesses within Pittsburgh's innovation district, but rather the empowerment of its most vulnerable people. Beyond imbalanced capital allocation and a lack of infrastructure, Pittsburgh has a history of perpetuating systemic racism and social divisiveness. This is another major driver of Pittsburgh's population decline.

BIPOC Pittsburgh: An Exodus

Pittsburgh author Deesha Philyaw remarked in a recent article, "Pittsburgh is not for us. Our lives, our successes, our well-being don't matter here, despite the fact that Pittsburgh's city council declared racism a public health crisis in 2019."⁶⁰

Black Pittsburghers are **6 times more likely than White Pittsburghers to go to bed hungry**. Over 33% of Black Pittsburghers live in poverty, earning 50% less than White Pittsburghers, with Black children four times more likely to be hospitalized with asthma than White children. Black people are also 9 times more likely than White people to be homeless and 9 times more likely to die a violent death in Pittsburgh.⁶¹ Black and Brown people are more likely to live in neighborhoods with high air pollution, such as from **black carbon and nitrogen oxide**, substances that cause cancer, respiratory and cardiac problems, and birth defects. What is more, these populations tend to lack access to basic resources, such as healthcare and public transit.^{62, 63}

⁵⁹ Ibid - Sih, 2018

⁶⁰ Philyaw (2021). "The Not-So Secret Lives of Black Pittsburgh Women." Bloomberg CityLab. <https://www.bloomberg.com/news/articles/2021-04-23/pittsburgh-is-not-a-livable-city-for-black-women>

⁶¹ Irving (2019). "How Pittsburgh Is Addressing Social and Economic Disparities." RAND. <https://www.rand.org/blog/rand-review/2019/07/how-pittsburgh-is-addressing-social-economic-disparities.html>

⁶² Marusic (2020). "Environmental injustice in Pittsburgh: Poor, minority neighborhoods see higher rates of deaths from air pollution." Environmental Health News. <https://www.ehn.org/environmental-injustice-pittsburgh-air-pollution-2646169635.html>

⁶³ Bourzac (2021). "A local look at air pollution highlights inequalities within cities." Chemical and Engineering News. <https://cen.acs.org/environment/pollution/local-air-quality-monitoring-inequalities/99/i23>

Moreover, there is an internal rift within **Latinx communities** in Pittsburgh. On one hand, there are documented immigrants from Central and South America that are professional and educated, and on the other hand, there are undocumented immigrants who must accept low-wage jobs. These two groups do not interact often. Certain segments of well-off Latinx people refuse to be associated with undocumented immigrants.⁶⁴

In general, the major challenges Latinx communities in Pittsburgh face concern those who are undocumented or do not speak English. In a 2017 interview, Sister Janice Vanderneck from **Casa San Jose**, a Latinx immigrant resource center, stated that people who struggle with the English language need help to navigate through everyday life in Pittsburgh.⁶⁵ In contrast, those who do speak English can better access job and employment services.⁶⁶ We agree with our stakeholders when they say that **comprehensive immigration reform** is necessary in order to bring undocumented Latinx people out of the shadows. Pittsburgh also needs to create centers that connect non-English speakers with the professional and social services they need. From there, all Latinx people should receive protections that allow them to be paid livable wages.⁶⁷

BIPOC people are faced with countless challenges when living in Pittsburgh, often to a higher extent than in other U.S. cities like Baltimore or Indianapolis. During the steel crisis, Black and Brown people were the first to be pushed out of the Pittsburgh economy and have been struggling to establish themselves in the city ever since, which becomes even clearer when examining population statistics. Since 2010, the city's overall population has remained steady,⁶⁸ but within ten years (2008 to 2018), Pittsburgh's Black population has declined by nearly 10% or 7,000 Black residents, whereas the city's White population has only fallen by 0.1% or 137 White residents.⁶⁹

⁶⁴ Pielemeier (2007). "Rift seen in growing local Latino population." Pittsburgh Post-Gazette. <https://www.post-gazette.com/business/businessnews/2007/02/23/Rift-seen-in-growing-local-Latino-population/stories/20070223025>

⁶⁵ Knox (2017). "Sister Janice Vanderneck is making sure Pittsburgh is welcoming to its Latino community." Next Pittsburgh. <https://nextpittsburgh.com/next-wave/sister-janice-vanderneck-csj-dedicated-activist-latino-community/>

⁶⁶ Hwang (2017). "Working with Latino Communities in Pittsburgh: Casa San Jose." Panoramas. <https://www.panoramas.pitt.edu/other/working-latino-communities-pittsburgh-casa-san-jose>

⁶⁷ Stakeholder interviews facilitated by 17AM.

⁶⁸ Poise Foundation (2016). "Neighborhood Attraction Factors Impacting the Young Professional African American Population in the City of Pittsburgh." (pg. 6-7). <https://static1.squarespace.com/static/56b860aa45bf2151de603f28/t/58cffbe7893fc02b62f53996/1490025459799/AANC+POISE+Report.pdf>

⁶⁹ University of Pittsburgh (2020). "Profile of Change in the City of Pittsburgh." https://www.ucsur.pitt.edu/files/census/ACS_Pgh_Profile_of_Change_2009-2013_v_2014-2018.pdf

The fact that Black people are leaving Pittsburgh is no surprise. Professor Jerry Dickinson from the University of Pittsburgh recently called Pittsburgh, “America’s apartheid city.”⁷⁰ The City of Pittsburgh recently published a report analyzing how different demographic groups in Pittsburgh fared within indices of livability, such as health, income, employment, and higher education. Pittsburgh is an average performer compared to other cities if one is White, but every other comparable city like Detroit or Columbus is more “livable” for Black people than Pittsburgh.⁷¹ Every aspect of life is worse when Black, such as poverty, mortality rates, birth defect rates, occupational segregation, and educational attainment. Black women have especially low qualities of life in Pittsburgh.^{72,73}



Photo Credits: Joe Dudeck on Unsplash

⁷⁰ Dickenson (Feb 2021). “Commentary: Pittsburgh is America’s apartheid city.” Public Source. <https://www.publicsource.org/commentary-jerry-dickinson-pittsburgh-is-americas-apartheid-city/>

⁷¹ Ibid - Howell et al. (2019)

⁷² Mock (2019). “Pittsburgh: A ‘Most Livable’ City, but Not for Black Women.” Bloomberg CityLab. <https://www.bloomberg.com/news/articles/2019-09-20/how-pittsburgh-fails-black-women-in-6-charts?sref=A1Z2GUXp>

⁷³ Ibid - Philyaw, 2021

The Crux of the Matter: Why Pittsburgh Has Not Achieved Sustainable Economic Growth

Pittsburgh was once a coveted place to live and work. While its former glory as a steel empire is far behind it, it's still home to valuable assets and institutions. Why haven't these assets translated into greater economic opportunity and prosperity, particularly for BIPOC communities? Our research revealed a few explanations: ⁷⁴

- 01 Pittsburgh has not translated its high R&D research dollars into new job creation and Gross Domestic Product (GDP) growth.
- 02 Pittsburgh has not created enough high-growth startups. Unlike Denver, Austin, Atlanta, and Copenhagen, few scalable startups remain in the city. The city has not churned out successful serial entrepreneurs that employ many people and usher wealth into the city.
- 03 Many people, particularly young Blacks, have moved out of Pittsburgh in recent years.
- 04 The average worker in Pittsburgh is older. About 250,000 Pittsburghers will retire by 2027. Moreover, workers are not being upskilled and low-skill jobs are not going to low-income workers in the **Hill District, Uptown, Hazelwood, and Homewood**. These workers would especially benefit from low- and middle-skill jobs.

In short, while Pittsburgh is a terrific place to start a business, **the city does not offer the right resources to sustain businesses**. Black entrepreneurs are especially at risk of failing due to the city's systemic racism.

⁷⁴ Ibid - Andes et al, 2017

Challenges for BIPOC Founders in Pittsburgh

About 25% of Pittsburgh's full-time Black workers have household incomes below 200% of the federal poverty line (\$46,100 for a family of four in 2012) compared to 9% of White workers. While the number of Black-owned businesses in Allegheny County increased by 40% between 2007 and 2016, **Black-owned businesses are still only a small percentage of the total in the county** (7% of nonemployer businesses and less than 1.5% of employer businesses).⁷⁵ **Non-employer firms** are businesses that have no paid employees other than the owners while **employer firms** have paid employees. Therefore, among the few Black-owned businesses, more have no paid employees other than the owner.

Some Black neighborhoods like the Hill District are considered “up-and-coming” due to their proximity to Downtown Pittsburgh and U Pitt. However, Black people have been slowly moving out of the Hill District. Prior to 2010, the district's population was 95% Black. In 2017, its population was 79% Black. Furthermore, homes located near Black neighborhoods are 23% undervalued than those near White neighborhoods.⁷⁶

The government of Pittsburgh recently declared racism to be a “public health crisis” and stood behind the phrase “Black Pittsburgh Matters.” Redevelopment of the Larimer community via Cornerstone Village and Larimer Pointe and the refurbishment of Hill District via Skyline Terrace have already demonstrated positive outcomes among residents, such as improved educational achievement, financial independence, and housing security. These housing development created mixed-income communities and brought amenities closer to home. It protected existing residents and uplifted the poorest. It has driven progress in the housing market; more homes are being purchased there without government subsidies because the quality of these neighborhoods improved. Schools are being built and universities and nonprofits are investing in these communities.^{77, 78}

⁷⁵ Treuhaft, 2016 (pg. 20).

⁷⁶ Perry et al, (2020). “The devaluation of businesses in Black communities.” (pg. 4-5). Brookings Institution. https://www.brookings.edu/wp-content/uploads/2020/02/2020.02_DevOfBizInBlackCommunities_Perry-Rothwell-Harshbarger-final.pdf

⁷⁷ Burgess & Lavelle (2020). “Black Pittsburgh Matters.” The New Pittsburgh Courier. <https://newpittsburghcourier.com/2020/08/02/black-pittsburgh-matters/>

⁷⁸ Oakland Business Improvement District (June 2020). “OBID is listening.” <https://onlyinoakland.org/uncategorized/obid-is-listening/>

In 2018, Pittsburgh ranked 65th out of 71 cities in Black-White income inequity. Racism is measurable in Pittsburgh and investors should familiarize themselves with relevant terms, such as **internalized racism, structural racism, and White culture** (See Glossary).⁷⁹

Beyond traditional employment, entrepreneurship is another way to increase BIPOC household income and enhance their economic autonomy. Blacks might be more likely than Whites to start businesses, but **their lack of business connections and inability to supersede investors' biases cause Blacks to struggle more as entrepreneurs than Whites.**^{80, 81}

Pittsburgh's entrepreneurial sphere is racist. BIPOC founders are denied access to finance, which stymies economic growth in their communities.⁸² In 2018, the Pittsburgh government issued more loans to small businesses in White- versus Black-majority census tracts (26 versus 23).⁸³

A 2020 Brookings study compared online Yelp reviews, an indicator of quality, with business' financial performance metrics like revenue and business growth. The national study found that better Yelp reviews correlated with higher profits. While White- and Black-owned businesses score equally well on Yelp, **businesses located in Black-majority neighborhoods receive fewer Yelp reviews and lower ratings overall,** controlling for whether the business was owned by a Black or Brown person. This association is particularly strong in cities like Philadelphia.⁸⁴

Top BIPOC Entrepreneurial Challenges

After conducting stakeholder interviews, 17AM uncovered the following challenges among BIPOC founders in Pittsburgh:

1. **Lack of business connectivity**, such as corporate business partners, mentors, anchor institutions, and a lack of networking opportunities;
2. **Lack of business support & training**, such as staff, offices, or business acumen; and
3. **Lack of capital** for growth and daily operations.

⁷⁹ Sherrill (2018). "Racial Equity Outcome Toolkit: A Six-Step Process for Your Organization." Heinz Endowments. https://www.heinz.org/UserFiles/Library/Racial_Equity_Outcome_Toolkit.pdf

⁸⁰ Ibid - Turner, 2018 (pg. 29, 30)

⁸¹ Ibid - Treuhaft, 2016

⁸² Ibid - Howell, 2019

⁸³ Ibid - May et al, 2018 (pg. 97).

⁸⁴ Ibid - Perry et al, 2020

Lack of Business Connectivity

Stakeholders revealed that BIPOC businesses tend to have a difficult time **gaining their first customers**. The lack of BIPOC entrepreneurial success can be traced back to the lack of connectivity between anchor institutions, multinationals, and small businesses.

A few recommendations emerged from our stakeholder interviews. First, networking can be facilitated by seating anchor institutions in the same room with entrepreneurs. Anchors should collaborate and strategize about their purposeful intent to hire BIPOC founders locally and directly. BIPOC founders should learn how to speak “corporate languages” and dispel racial stereotypes and misconceptions.⁸⁵

Further, multinational corporations must be incentivized to hire local companies and integrate them throughout their supply chains. This could be done using **diversity, equity, and inclusion (DEI) policies or racial equity audits**, corporate consortiums, and introductions to high-quality BIPOC companies.⁸⁶ In order to enable these introductions and conversations, stakeholders could conduct a **matchmaking analysis** that analyzes corporate or anchor needs and where BIPOC entrepreneurs could be value-add partners. RCI's current study with Rutgers finds that matchmaking analyses can convince anchors and corporations that cities like Pittsburgh are home to a goldmine of entrepreneurs that **improve corporate bottom lines, reduce costs, and increase ROI**.⁸⁷

Lack of Business Support & Training

Small BIPOC businesses often lack the proper infrastructure or “**soft tissue services**” to operate efficiently and sustain themselves. These can include staffing, legal services, administrative services, office space, inventory, market research, client acquisition services, financial literacy, and business training.^{88, 89}

⁸⁵ Stakeholder interviews facilitated by 17AM.

⁸⁶ Stakeholder interviews facilitated by 17AM.

⁸⁷ Stakeholder interviews facilitated by 17AM.

⁸⁸ Ibid - Dubb, 2018

⁸⁹ Pittsburgh Black Elected Officials Coalition (2017) pg. 38

The lack of entry- and executive-level talent in the city limits revenue growth. There is only so much founders can do to keep their businesses alive without proper staffing. Multiplier effects can be created by crowdsourcing labor and infrastructure support. This will likely involve engaging Pittsburgh's college students to provide assistance. For instance, at the **Newark Anchor Collaborative**, college students helped BIPOC businesses complete grant and request for proposal (RFP) applications in order to achieve contracts and funding from major companies as well as write business plans.

In order for BIPOC founders to be self-sufficient, they require rigorous business training, coaching, guidance, and mentorship. This will enable founders to operate their businesses efficiently and form long-term relationships with anchor institutions and corporations. It is also critical to provide BIPOC founders with necessary skills such as budgeting, client acquisition, marketing, and communication.

Unlike White-owned, middle-market companies, BIPOC companies struggle to earn enough revenue (\$1-10M) to qualify for private equity. Moreover, BIPOC founders tend to lack go-to-market (GTM) strategies and do not know how to demonstrate their financial progress to investors. Stakeholders could foster collaboration between small businesses in order to help them acquire larger, joint contracts. This collaborative spirit will be supported by the **Equitable Entrepreneurial Ecosystem (E3) Alliance of Greater Pittsburgh**. Stakeholders could also work with the city government to create business zones for low-income, BIPOC communities. This would allow developers to convert existing properties into viable^{90,91} business districts. Separately, stakeholders could enable BIPOC founders to become union signatories, which could allow founders to receive healthcare and pension⁹² benefits.

⁹⁰ Ibid - Dubb, 2018

⁹¹ Ibid - PBEOC, 2017 pg. 38

⁹² Stakeholder interviews facilitated by 17AM.

Lack of Capital

BIPOC founders typically do not have wealthy friends or family that can help them launch a business. Therefore, BIPOC founders tend to bootstrap or seek **grants, Kiva loans, microloans, and public funding** such as from the Minority Business Development Agency.^{93,94} These funding sources are highly competitive and short-term, meaning that once founders spend these small bursts of funding, they cannot expect to receive a second investment from the same source until current loans are paid in full. Starting a business and scaling are two different things. **Go-to-market capital is⁹⁵ almost non-existent for BIPOC people.**

Nationally, most entrepreneurial capital is deployed into later-stage companies. BIPOC founders are more likely than their White counterparts to experience funding difficulties at this stage as well, particularly when their business is non-technical. Investors are hungry for “sure wins” and high-growth opportunities. BIPOC founders report the need to “code-switch” in the face of White investors and work harder to prove that they have overcome commercial risks, understood product-market fit, and carved out a niche for themselves compared to White founders.⁹⁶

Middle- and late-stage companies that are non-technical and lifestyle-focused are particularly deprived of capital. Moreover, Pittsburgh-based companies must spend more time and money attracting executive-level talent than cities like Boston and San Francisco, which candidates perceive as holding more long-term career prospects.⁹⁶

⁹³ Ibid - University of San Diego, 2020

⁹⁴ Ibid - OECD, 2015

⁹⁵ Stakeholder interviews facilitated by 17AM.

⁹⁶ Stakeholder interviews facilitated by 17AM.

Philanthropic & Public Grants

Most grant dollars in Pittsburgh are funneled toward advanced technology startups. Foundations should consider doing more to support lifestyle BIPOC startups using capital grants. Foundations report that they deploy PRIs selectively and to support pilot phases. For example, in April 2021, Heinz Endowments awarded a \$30 million grant to CMU to create “The Center for Shared Prosperity.” The Center will launch interventions that address **housing, education, transportation, healthcare, technology fluency, and access to capital** in Pittsburgh. This six-year initiative aims to help close racial inequities in the region.⁹⁷

As part of a new slew of CDFIs in Pennsylvania and the federal CARES Act, The COVID-19 Relief Small Business Assistance program is a \$100M grant program designed to help underserved businesses, namely Black and Brown founders in Pennsylvania. Enhanced public funding is terrific, but Pittsburgh must change the culture through which they engage with Black founders throughout the entrepreneurial supply chain, from banking to access to contracts.⁹⁸

Debt Instruments

Another prominent source of small business funding is Community Development Financial Institutions (CDFIs). However, BIPOC founders often find themselves excluded from the services CDFIs offer because they are less likely to have relationships with large financial institutions than White founders.⁹⁹ While Pittsburgh offers five CDFIs geared toward BIPOC¹⁰⁰ founders, these CDFIs would benefit from additional funding. Another source of debt funding for BIPOC entrepreneurs in Pittsburgh is credit unions such as the Hill District Federal Credit Union, which is one of three Black-owned and operated financial institutions in Pennsylvania.^{101, 102}

⁹⁷ CMU (April 2021). “Carnegie Mellon, Heinz Endowments Launch Initiative to Promote Economic Empowerment, Address Inequities in Pittsburgh Region.” <https://www.cmu.edu/news/stories/archives/2021/april/center-for-shared-prosperity.html>

⁹⁸ DeJesus (2021). “For Black-owned businesses, access to capital is a starting point to leveling the field.” Penn Live. <https://www.pennlive.com/news/2020/07/for-black-owned-businesses-access-to-capital-is-starting-point-to-leveling-field.html>

⁹⁹ O’Driscoll (2020). “Very Small & Minority-Owned Pittsburgh Businesses Still Shut Out Of Big Loan Program.” <https://www.wesa.fm/economy-business/2020-04-27/very-small-and-minority-owned-pittsburgh-businesses-still-shut-out-of-big-loan-program>

¹⁰⁰ Stakeholder interviews facilitated by 17AM.

¹⁰¹ Taylor Jr (Dec 2020). “Hill District Federal Credit Union having banner year in 2020.” The New Pittsburgh Courier.

¹⁰² Blackout Coalition (2021). “U.S. Map of Black Banks & Credit Unions.” <https://blackoutcoalition.org/black-u-s-banks/>

Some interviewed entrepreneurs preferred low-interest, long-term debt to equity. They reported that this arrangement is helpful to companies that are starting out. This allows the founders to explicitly state what they need to pay for and when they can reasonably expect to pay it back, say in five years. This results in a loan that is more adapted to the founder's needs.¹⁰³

Equity

Venture capitalists have always underinvested in BIPOC founders due to racial bias.^{104,105} The amount of VC dollars allocated toward founders of color compared to White founders is deplorable. VCs invest in “what they know” and they do not understand BIPOC markets or struggles. Again, technical BIPOC founders are more likely than lifestyle founders to achieve angel investments and win venture competitions, but these founders typically leave Pittsburgh for San Francisco or Boston when their startup achieves a modicum of success.^{106,107}



Photo Credits: Jamar Cromwell on Unsplash

103 Stakeholder interviews facilitated by 17AM.

104 Ibid - Howell et al. (2019)

105 Norman (2020). “A VC’s Guide to Investing in Black Founders.” Harvard Business Review. <https://hbr.org/2020/06/a-vcs-guide-to-investing-in-black-founders>

106 The Black Business Alliance (2017). “Accelerators For Minority-Led Companies.” <https://www.bbbusinessalliance.org/our-blog/267-accelerators-for-minority-led-companies>

107 Crunchbase (2020). “Funding to Black & Latinx Founders.” http://about.crunchbase.com/wp-content/uploads/2020/10/2020_crunchbase_diversity_report.pdf

A New Perspective: Seeing Pittsburgh from a BIPOC Lens

Like every city in America, Pittsburgh was designed to exclude and oppress people of color. Poverty creates a “mental prison” that confines families across generations.¹⁰⁸ People of color are more likely than Whites to become entrepreneurs out of necessity rather than choice, as earning a living wage is difficult. Pittsburgh’s social and economic systems have created a large disconnect between people, where trust, reputation, and the “right connection” are the deciding factors for success, and where people must accept whichever job they can get rather than get hired for a job they are driven to do.

Job creation alone will not revitalize Pittsburgh or improve the lives of BIPOC communities. To truly achieve sustainable economic development and population growth, Pittsburgh must foster a socially inclusive environment and robust infrastructure that empowers all of its residents, regardless of race and profession. Addressing racial inequity requires economic interventions that alleviate poverty, social networks that improve trust and cohesion, and social services that enable families to thrive. **One tool to achieve this change is an investment in lifestyle businesses, specifically in Black and Brown entrepreneurs.**

How Pittsburgh Can Heal: Addressing its Racial Wealth Gap

The U.S. would earn \$8T in GDP by 2050 if it closed its racial wealth gap. One of the major drivers of racial inequality today is neighborhood gentrification. Generations of BIPOC communities have been forced into **high-poverty neighborhoods** that are starved for infrastructural funding. Research demonstrates that unhealthy housing and urban environments inhibit health and economic opportunities. For example, unhealthy housing can limit one’s access to educational and employment opportunities, increase exposure to crime, and cause adverse health outcomes.¹⁰⁹

¹⁰⁸ Stakeholder interviews facilitated by 17AM.

¹⁰⁹ Ibid - Turner, 2018 (pg. 29, 30).

Throughout Pittsburgh's history, Black people have been less likely than their White counterparts to own homes, stifling their ability to build **generational or legacy wealth**. This helps explain why most BIPOC families and Black women do not have family wealth. Moreover, these social and economic problems accumulate and are passed down to younger generations. The cumulative impact of poverty and racism on BIPOC communities deserves **reparations**. This involves conducting racial equity audits of corporations and bank institutions in order to reveal how much wealth they have not created from BIPOC communities since the era of slavery. ¹¹⁰

The City of Pittsburgh, Black Pittsburgh Matters, and PolicyLink ¹¹¹ recommend that Pittsburgh adopt a neighborhood approach to BIPOC poverty alleviation. They argue that high-poverty and BIPOC neighborhoods, such as the **Hill District, Uptown, Hazelwood, and Homewood** be converted to high-functioning areas of opportunity. This strategy will likely include efforts to: ^{112, 113, 114}

1. **Democratize affordable housing**, use public land for equitable development, and develop a community land trust strategy. This could be through the Housing Opportunity Fund and the Pittsburgh Land Bank to Repurpose Distressed Properties for Affordable Housing.
2. **Reduce community-based violence** with public safety programs. Stop criminalizing Black youth and over-policing schools. ¹¹⁵
3. **Provide Pre-K for All and improve K-12 learning outcomes**. Poor families of color are especially in need of universal Pre-K. These programs allow parents to work longer hours and children to relieve themselves of poverty-related stress. Moreover, Pre-K programs can set children on a path toward higher educational achievement. ¹¹⁶

¹¹⁰ Stakeholder interviews facilitated by 17AM.

¹¹¹ Stakeholder interviews facilitated by 17AM.

¹¹² Ibid - Burgess & Lavelle, 2020

¹¹³ Ibid - Treuhaft, 2016

¹¹⁴ The City of Pittsburgh (2021). "One PGH - Resilient Pittsburgh - Investment Prospectus." (pg. 8).

<http://onepgh.org/documents/ONEPGH-Investment-Prospectus-2021.pdf>

¹¹⁵ Stakeholder interviews facilitated by 17AM.

¹¹⁶ The City of Pittsburgh (2017). "Pre-K in Pittsburgh: A Call for Action." https://apps.pittsburghpa.gov/mayor/City_Report_FINAL.pdf

In contrast, Pennsylvania ranks 5th nationally in total public school funding. Pittsburgh schools spend \$27,000 per student compared to private schools in Pennsylvania charging \$11,500 per student. Higher educational budgets alone do not improve academic performance. Pittsburgh schools should reevaluate budgetary allocations, **diversify student populations, and design curricula using evidence-based teaching and anti-racism.**¹¹⁷

4. Create dense, vertical neighborhoods with **sustainable food systems** and reduce food deserts and swamps.
5. **Create a Black downtown**, develop makerspaces, and improve public transportation to connect neighborhoods.
6. Invest in diverse art and culture.
7. Direct residents toward community and faith-based groups that improve quality of life.

In short, the City of Pittsburgh and its stakeholders should take a neighborhood approach to lifting BIPOC communities out of poverty.

Creating a BIPOC Middle Class: Education, Employment & Entrepreneurship

An important facet of BIPOC poverty alleviation is employment and entrepreneurship. In order to enable BIPOC Pittsburghers to earn livable, comparative salaries to their White counterparts, stakeholders must strengthen their **educational, employment, and entrepreneurial prospects:**¹¹⁸

¹¹⁷ Hroncich (June 2021). "School Funding Myth Busters." Commonwealth Foundation.
<https://www.commonwealthfoundation.org/policyblog/detail/school-funding-myth-busters>

¹¹⁸ Ibid - Turner, 2018 (pg. 29, 30).

1. **Education:** Increase college retention rates and local job placements that pay livable wages.^{119, 120}
2. **Employment:** Offer pathways for students and professionals to enter corporate jobs via corporate visits in schools and networking events. Also, work with corporations to improve the diversity of their supply chains via DEI or racial equity audits.
3. **Entrepreneurship:** Provide BIPOC people with the resources to start and sustain businesses that enrich Pittsburgh with their goods, services, and culture.

Education

Historically, universities in Pittsburgh have not actively recruited BIPOC students, which deprives them of livable incomes later in life.¹²¹ Furthermore, BIPOC youth do not typically have older students to look up to as they plan for their future. BIPOC students should be actively recruited and trained in high school and college to enter high-wage jobs. Academic institutions should create programming that allows young people to picture themselves earning high salaries and making a positive difference in their local communities. They should also be given priority during career fairs and networking events so they can more easily access career opportunities after completing their high school and college educations.

Employment

Employers should actively recruit BIPOC people for entry- and mid-level career positions in Pittsburgh. On a national scale, Blacks earn less and are more likely to be unemployed compared to Whites. Employers' systemic racial biases can lead them to choose White over Black candidates.

¹¹⁹ Pittsburgh Public Schools. "Cohort Graduation Rates." PA Department of Education. <https://www.pghschools.org/Page/5072>

¹²⁰ Open Data Network. "Graduation Rates." https://www.opendatanetwork.com/entity/1600000US4261000/Pittsburgh_PA/education.graduation_rates.percent_high_school_graduate_or_higher?year=2018

¹²¹ Stakeholder interviews facilitated by 17AM.

The biggest difference between **Black and White** job candidates is access to **contacts** that can connect them to leads and recommend them to employers. In addition, 15% of BIPOC households are more likely to be “unbanked” with no access to a checking or savings account compared with 3% of White households.¹²²

Local stakeholders can support several measures that improve BIPOC communities’ access to high-quality jobs in Pittsburgh. These include **social safety nets, reskilling opportunities, DEI initiatives, and networking services.**^{123, 124} Expanding BIPOC employment requires that Pittsburgh completely revamp its institutions, businesses, and government. At a government level, certain safety nets are essential, such as Low-Barrier Homeless Shelters and a pilot Guaranteed Income program. The City of Pittsburgh has also started an interest in creating Apprenticeships, expanding Financial Empowerment Centers, and investing in Avenues¹²⁵ of Hope.

Stakeholders must include more BIPOC individuals within every organizational process, from recruitment to supply chains. Research demonstrates that DEI initiatives enhance company competitiveness and bottom lines. Also, corporates can implement a **step-wise DEI strategy to create equitable work environments:**



¹²² Ibid - Turner, 2018 (pg. 29, 30).

¹²³ Ibid - Burgess & Lavelle, 2020

¹²⁴ Ibid - Treuhaft, 2016

¹²⁵ Ibid - City of Pittsburgh, 2021 (pg. 8)

¹²⁶ Ibid - Turner, 2018

Entrepreneurship

The **Entrepreneurs of Color Fund** is a collaboration between the Kellogg Foundation, JPMorgan Chase, Detroit Development Fund, and the Local Initiatives Support Corporation (LISC); it aims to help people of color start businesses, employ people from their community, and sustain those businesses during difficult periods.¹²⁷ The fund pools financial and educational resources from banks, CDFIs, and philanthropic investors to provide loans, coaching, and operational guidance to BIPOC businesses.

In addition, the Goldman Sachs Foundation spearheaded the **10,000 Small Businesses program** in 2009. Nationally, over 10,000 small business owners have graduated from the free training program. Business owners must apply to participate, but once accepted, participants learn core business skills such as financial statement analysis and negotiation, marketing, employee management, and growth strategy development. About 66% and 47% of graduates experience higher revenues and hire more employees within 6 months after the program respectively.¹²⁸ Also, 86% of graduates conduct business together.¹²⁹ Corporates like **PayPal, Gap Inc., and Symantec** are conducting racial equity audits to assist with post-slavery reparations. Their goal is to return wealth that was drained from BIPOC communities from the era of slavery to today.

Similarly, stakeholders should facilitate BIPOC entrepreneurial success in Pittsburgh. According to the U.S. Census Bureau, only one million of over 5.5 million **employer firms** (companies with paid employees) in the U.S. in 2018 were BIPOC-owned businesses or 18.3%.¹³⁰ Almost 58% of BIPOC-owned businesses are owned by Asians, about 33% by Latinx, and around 12% by African-Americans. There are also 25 million **non-employer firms** (companies without paid employees) across the country. About 96% and 91% of Black- and Latinx-owned firms respectively are nonemployer firms compared to 78% and 75% of White- and Asian-owned firms.^{131,132,133}

¹²⁷ Entrepreneurs of Color Fund. "Ownership, Community Transformation, and Equality." <https://www.lisc.org/eocf/>

¹²⁸ Ibid - Turner, 2018

¹²⁹ Goldman Sachs. "10,000 Small Businesses." <https://www.10ksbapply.com/>

¹³⁰ U.S. Census Bureau (Jan 2021). "Annual Business Survey Release Provides Data on Minority-Owned, Veteran-Owned and Women-Owned Businesses." <https://www.census.gov/newsroom/press-releases/2021/annual-business-survey.html>

¹³¹ Battisto et al (2021). "2021 Report on Firms Owned by People of Color." (pg. 34) Federal Reserve Bank. <https://www.fedsmallbusiness.org/survey/2021/2021-report-on-firms-owned-by-people-of-color>

¹³² Small Business Trends (Jan 2021). "Small Business Statistics." <https://smallbiztrends.com/small-business-statistics>

¹³³ U.S. Small Business Administration (2020). "2020 Small Business Profile." <https://cdn.advocacy.sba.gov/wp-content/uploads/2020/06/04144224/2020-Small-Business-Economic-Profile-US.pdf>

BIPOC founders struggle to secure funding from all types of investors. This can be seen by investigating city-based investment trends. Cities with large BIPOC populations like Chicago and New Orleans are home to innumerable Black and Brown founders that cannot get their businesses off the ground. In a country with a venture capital industry that invests billions of dollars each year, a disproportionate number of entrepreneurs are unable to tap into this capital source. Only 8% of VC-funded startup founders are women, 1% are Black, and 0.4% are Latinx, leading many BIPOC founders to not even consider venture capital as a financing option.^{134, 135, 136}

A Pitchbook report revealed that of the funds raised by VC firms, less than 3% is allocated to BIPOC-owned startups.¹³⁸ **This percentage decreases even further when founders belong to more than one minority group.** For instance, a Black male may have less than a 1% chance to receive VC financing, but a Black woman has only 0.27%.^{139, 140} Investors' unwillingness to invest in BIPOC founders reflects historical trends of racial bias. Pittsburgh investors must recognize and work to overcome this bias.

Black founders are 3 times more likely to report that they did not apply for credit when they needed it because they believed their loan application would be denied. Black-owned startups are about 3 times less likely than White-owned startups to have their loan requests approved. The average amount of initial capital among black entrepreneurs is \$35,205 versus \$106,720 for white entrepreneurs. The average Black-owned startup has about \$500 of outside equity funding compared with \$18,500 for White-owned startups. Black- and Latinx-owned firms were less likely than White-owned firms to apply for a Paycheck Protection Program (PPP) loan because, for instance, they missed the deadline or weren't aware of the program. In 2020, about 52% of Black-owned small businesses operated on

¹³⁴ Johnson (2020). "The Equity Capital Gap for Entrepreneurs of Color in Chicago." Next Street. https://nextstreet.com/wp-content/uploads/2020/06/The-Equity-Capital-Gap_NXST-June-2020_vFINAL.pdf

¹³⁵ McCline et al, (2015). "Expanding Opportunity for Minority-Owned Businesses in Metro New Orleans." https://s3.amazonaws.com/gnocdc/reports/The+Data+Center_Expanding+Opportunity+for+Minority-Owned+Businesses+in+New+Orleans.pdf

¹³⁶ Hwang et al (2019). "Access to Capital for Entrepreneurs, Removing Barriers." Kauffman Foundation. https://www.kauffman.org/wp-content/uploads/2020/06/Access-To-Capital_2019.pdf

¹³⁷ Mission Investors Exchange (March 2021). "Open the Door for Underrepresented Founders." <https://missioninvestors.org/events/open-door-underrepresented-founders>

¹³⁸ Ibid - Crunchbase, 2020 (pg. 4).

¹³⁹ Hinchliffe (Dec 2020). "The number of Black female founders who have raised more than \$1 million has nearly tripled since 2018." Fortune. <https://fortune.com/2020/12/02/black-women-female-founders-venture-capital-funding-vc-2020-project-diane/>

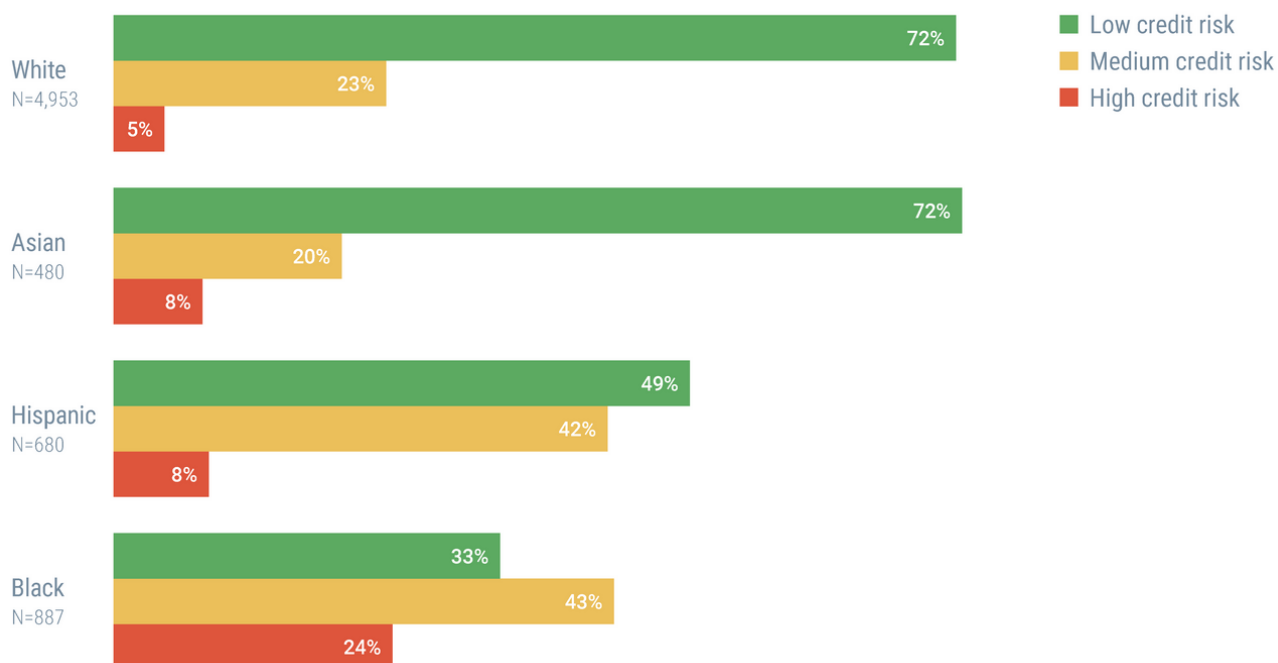
¹⁴⁰ Transparent Collective. "What is the Transparent Collective?" <https://www.transparentcollective.com/who-we-are.html#/>

¹⁴¹ Fairlie, Robert W., Alicia Robb, and David T. Robinson. Black and white: Access to capital among minority-owned startups. No. w28154. National Bureau of Economic Research, 2020.

\$100,000 or less in revenue, followed by Hispanic- and Asian-owned firms (30% and 18%, respectively).¹⁴²

Overall, researchers find that Black founders start businesses with significantly less money and at lower scales than White founders. This gap persists as businesses mature, but particularly in the first few years of business. Black founders are less likely to receive outside debt in their early years of business compared to White founders. **Researchers believe that this is the most significant reason why these groups exhibit such a strong disparity in financial capital.** Alternative sources of capital like family loans, personal contributions, and credit cards do not shrink these gaps. In short, Black-owned startups have more limited access to all types of funding than White-owned startups.¹⁴³

CREDIT RISK OF FIRM^{2,3} (% of employer firms)



Source: Battisto et al, 2021 (pg. 2).

¹⁴² Ibid - Battisto et al, 2021 (pg.1,12)

¹⁴³ Ibid - Fairlie et al, 2020

Our Vision for Pittsburgh 2030: An Intelligent City

RCI seeks to help make Pittsburgh a globally recognized innovation city. Pittsburgh could be a pioneer hub for BIPOC entrepreneurs and prosperity. Indeed, the City has partially transitioned from being a point on the Rust Belt to becoming a “**Brain Belt City**,” a tight array of research universities, community colleges, local government, and established companies with robust R&D arms, startups, and venture capitalists, lawyers, and design firms. The activities of all of these actors are mutually beneficial as they all aim to achieve success within their respective organizations and for the city.¹⁴⁴

However, in order to achieve prosperity for all, Pittsburgh must become racially equitable. The concept of “**smart cities**” is also insufficient. While cities like New York or San Francisco have robust integrated technology (IoT), transportation, and climate resilience, they have yet to eradicate poverty.¹⁴⁵ We aim to challenge assumptions behind “smart” or “brainy” cities by proposing a new term. An “**intelligent city**” is a more human-centered, racially equitable, diverse, and prosperous version of a smart city. Pittsburgh is in a prime position to become an intelligent city using evidence-based research and forward-thinking investors.

17AM and RCI aim to improve the following outcomes by 2030:

- BIPOC job expansion, business creation, and contract acquisition.
- A greater percentage of BIPOC households with livable, equitable incomes.
- Enhanced local economic growth and productivity compared to the U.S. nationally.
- BIPOC economic multiplier effects on the Pittsburgh economy via GDP growth.

¹⁴⁴ Ibid - Katz & Nowak, 2018

¹⁴⁵ Rogan (2019). “The 3 Pictures That Explain Everything About Smart Cities.” Bloomberg.
<https://www.bloomberg.com/news/articles/2019-06-27/what-s-a-smart-city-supposed-to-look-like>

We will analyze these outcomes with a focus on high-poverty and BIPOC neighborhoods, such as The Hill District, Uptown, Hazelwood, and Homewood.¹⁴⁶

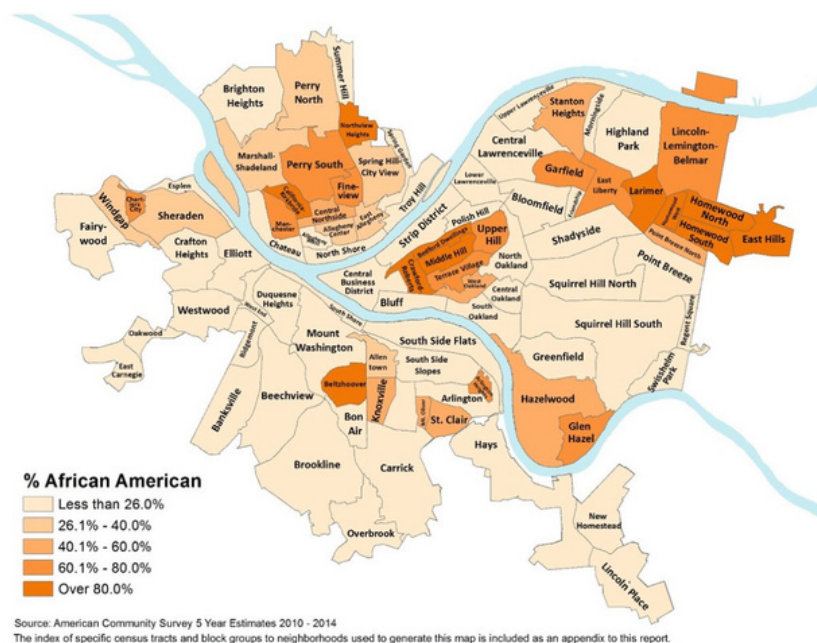


Figure B.2: Percent African American, Pittsburgh Neighborhoods 2010 - 2014

Source: Poise Foundation, 2016 pg. 7

One infrastructural program worth mentioning is The Pittsburgh 2030 District, a globally recognized initiative of Green Building Alliance (GBA) that helps building owners and managers create “high-performing buildings.” The program, implemented within Downtown, Northside, Oakland, and Uptown, helps building owners/managers achieve 50% reductions in energy use, water consumption, and transportation emissions by 2030, and improve indoor air quality. Building managers report their environmental and health impact each month, receive personalized training from community partners, learn from fellow building managers, and benchmark their environmental and health performance against their peers. This program exists at 22 international sites. Since 2012, the global program has saved \$206M in energy and water costs. The Pittsburgh 2030 District is the first site to analyze indoor air quality data. We are optimistic that Pittsburgh can implement this program within all of its buildings (i.e. offices, schools, homes) and similarly rigorous programs to improve upon environmental, health, and economic outcomes.

146 Ibid - Andes et al, 2017

147 Pittsburgh 2030 District (2021). “2020 Progress Report.”

Case Study: RCI's Equitable Entrepreneurs' Capital Facility (REEF)

In a recent report, the Pittsburgh Black Elected Officials Coalition (PBEOC) expressed an urgent need for a growth fund that would holistically support BIPOC businesses. RCI's Equitable Entrepreneurs' Facility (REEF) looks to accomplish this. REEF seeks to nurture Black and Brown entrepreneurs in Pittsburgh that can improve the sustainability and racial equity of the City. While other investment firms continue to nurture and invest in Black entrepreneurs creating advanced technology, RCI seeks to complete the story.

RCI's Equitable Entrepreneurs' Facility will provide financing and business development support to tech-adjacent and lifestyle businesses that create high-quality jobs in real estate, infrastructure, transportation, healthy food, and workforce development. This model and investment approach is exactly what Pittsburgh needs in order to lift Black and Brown Pittsburghers out of poverty and create a city that all residents, particularly young BIPOC residents, can be proud to call home. RCI envisions that this business development and capital facility will address all of founders' logistical and financial challenges.^{148, 149}

RCI and 17AM classify businesses in Pittsburgh into three categories: **Advanced technology, Tech-adjacent, and Lifestyle businesses.** Tech-adjacent businesses sit between the two categories: while their main product or service is not software or dependent on software, their activities are improved by the presence of technology, such as a kiosk, online store, or app.

Leading Pittsburgh investors, such as Black Tech Nation and Innovation Works, have largely allocated capital toward advanced tech startups, such as those in AI, robotics, and autonomous vehicles. To avoid oversaturating

¹⁴⁸ Ibid - PBEOC, 2017 (pg. 29).

¹⁴⁹ Benner et al (2008). "Inclusion in the Workforce - Positioning the Pittsburgh Region to Prosper and Compete." (pg. 13). Sustainable Pittsburgh. https://www.sustainablepittsburgh.org/Pub/Final_Inclusion_7-28-09.pdf

the advanced tech startups space, REEF will focus on tech-adjacent and lifestyle businesses.

There are a few reasons why REEF will do this beyond differentiating themselves in the market. RCI is focused on closing the BIPOC wealth gap, creating a BIPOC middle class, and enabling BIPOC people to earn living wages with **entrepreneurship as their modus operandus**. Their activities will fall within a collection of other interventions involving the City of Pittsburgh. RCI's programming will nurture and scale BIPOC companies with great potential to advance the City of Pittsburgh.

17AM and RCI have identified **16 industry supply chains** that support BIPOC people and a BIPOC middle class in Pittsburgh:¹⁵⁰

Tech-Adjacent

1. Real estate: Residential & Commercial venues
2. Infrastructure / Smart buildings / Climate resilience
3. Renewable energy / Utilities
4. Public Transportation
5. Logistics / Supply chain / Trucking
6. Healthcare / Community Health / Fitness / Personal Training
7. Marketing / Graphic Design / Media
8. B2B: Product & Project Management, Sales, Market Research

Lifestyle

9. Healthy Food & Beverage
10. Legal / Social work
11. Financial Services / Investment / Insurance / Mezzanine Capital & Credit
12. Accounting / Administrative Services
13. Arts / Culture
14. Retail / BIPOC Beauty / Fashion / Textiles
15. Cleaning / Property Maintenance / Lawn care
16. Specialty Trade / Competitive Bidding Services

¹⁵⁰ Stakeholder interviews facilitated by 17AM.

RCI and 17AM believe that if RCI and its support institutions invest in high-priority businesses within tech-adjacent and lifestyle sectors, the City of Pittsburgh will flourish and encourage advanced tech companies to situate themselves in the city. This will allow the city to reap the economic benefits of coveted, high-growth companies that have the greatest likelihood of becoming unicorns. In order for this future to exist, RCI is committed to making Pittsburgh a more diverse, livable, and attractive city for everyone, particularly BIPOC.

RCI recognizes that the future of work from a BIPOC lens is unique. BIPOC people and women struggle with issues around safety, racism, and misogyny in Pittsburgh, particularly when they are forced to work as contractors or in low-income neighborhoods with high crime rates.¹⁵¹ Moreover, BIPOC people often suffer from a lack of choice when it comes to their income. **Latinx immigrants might abandon their advanced degrees in medicine or dentistry** when they move to Pittsburgh because these degrees do not transfer from their native countries or because they fear deportation. As a result, BIPOC people are relegated to low-paying jobs in Pittsburgh. Nationally, Latinx-owned businesses are concentrated among tech-adjacent and lifestyle categories such as **small farms, construction, wholesale, and transportation services.**¹⁵² RCI seeks to offer BIPOC people a choice to provide for their families and support their communities by doing fulfilling work.

REEF will take a funnel-based approach to select companies for sector-based cohorts. Companies will be admitted based on a few criteria: **the founder must belong to a BIPOC community and the company should have achieved a certain degree of market traction.** From there, RCI will educate parallel cohorts on business fundamentals, open networking doors, and provide companies with funding. **We believe that this semi-customized, cohort approach is highly scalable given other incubator and accelerator models focused on BIPOC companies and/or sustainability.** As REEF grows and scales, the process will become more automated without sacrificing the quality of programming or support.

¹⁵¹ Stakeholder interviews facilitated by 17AM.

¹⁵² Ibid - Fed Small Business, 2021 (pg. 4)

REEF will support its growth-stage companies in three ways: **providing access to business contacts, business training, and capital**. Our stakeholder interviews and literature review revealed that these resources are the most critical to BIPOC founders in Pittsburgh. REEF will work with its partners to provide these resources to their cohort companies.

Impact Measurement

17AM took a problem mapping approach to Pittsburgh in order to isolate the most appropriate metrics by which REEF can measure its effectiveness and performance. The problem that REEF squarely aims to tackle is **BIPOC poverty**. In order to fully grasp the gravity of this problem, it is essential to note that BIPOC poverty is a historical issue, stretching back to slavery and continuing into modern day.

What does it mean to be economically free? We believe that economic freedom means that BIPOC people earn livable wages at least equal to what their White counterparts earn. RCI and 17AM have compiled a list of key performance indicators (KPIs) that will help enable REEF to hold themselves accountable to their cohort companies.^{153,154}

RCI's Equitable Entrepreneurs' Capital Facility: Metrics

Our research revealed that the following key performance indicators (KPIs) would be the most relevant to REEF as they engage with BIPOC companies:¹⁵⁵

1. **Job creation:** How many jobs did the company create per neighborhood and across demographic groups (e.g. Black women, Latinx youth)? What are the retention and turnover rates for those jobs?
2. **Contract Acquisition:** How many new contracts did RCI's businesses achieve after completing the program? How many business introductions from RCI translated into for-profit contracts or investments in cohort companies?

¹⁵³ Stakeholder interviews facilitated by 17AM.

¹⁵⁴ Ibid - Treuhaft (2016).

¹⁵⁵ Ibid - Andes et al, 2017 (pg. 44, 58)

3. **Living Wages:** How many of the jobs created offer livable wages for employees? How much did household income levels change for employees? How many household incomes reached “livable levels?” To what degree did the ratio of Black-White income or wages change?
4. **Funding Longevity & Effectiveness:** To what degree does RCI’s funding translate into revenue runway? Are companies that receive RCI funding more financially successful than companies who do not? RCI should compare these metrics across companies that receive different funding levels and terms (e.g. interest rates, loan amount).
5. **Exit Results:** How many of RCI’s companies reach their highest potential upon completion of the program or post-RCI’s exit?
6. **Non-financial support (networking, mentoring):** How many hours of training did companies receive and how many new skills are founders proficient in (e.g. financial literacy, budgeting, pitching)? How many new contracts and investments from partner institutions did companies receive post-networking?
7. **Sector-based metrics:** How many companies did RCI nourish across various sectors (e.g. food, infrastructure)? What are their cascading effects on neighborhood prosperity?
8. **Procurement index:** In one of the stakeholder interviews facilitated by 17AM, the creation of a ‘Procurement Index’ was suggested, which could measure corporate DEI expenditures, benchmark them against higher standards, and give them scores. This index could pair corporate scores with the amount of estimated investments needed to solve the major sustainability challenges in Pittsburgh. Additionally, this tool could hold corporations accountable and drive them to participate in RCI’s work.¹⁵⁶ RCI could potentially measure the amount of money committed to DEI and racial equity work following the launch of a procurement index. This tool could complement existing procurement efforts already underway by some of RCI’s strategic partners.

The City of Pittsburgh and RCI’s partners will be instrumental in measuring more upstream metrics related to neighborhood and human development. The goal would be to produce a set of standardized metrics that could be used by all of Pittsburgh’s stakeholders.^{157, 158}

¹⁵⁶ Stakeholder interviews facilitated by 17AM.

¹⁵⁷ Allegheny Conference (2021). “2021 and Beyond Work Plan: Regional Vitality Post-Pandemic.” https://www.alleghenyconference.org/wp-content/uploads/2021/02/2021_WorkPlan_012921.pdf

¹⁵⁸ Ibid - May et al, 2018 (pg. 6,16).

1. **Neighborhood Impact:** How much did median household income (per zip code) change after funding and nurturing RCI's cohort companies? What is the distribution of companies per zip code and does neighborhood-level impact correspond with company locations?
2. **DEI Talent:** What is the % increase in new Pittsburgh jobs filled by BIPOC people, particularly in executive or corporate roles?
3. **Access to Benefits:** How many BIPOC families can afford childcare and eldercare, and how many of those families can return to work?¹⁵⁹
4. **Social Determinants of Health:** To what degree did violent crime, cardio/respiratory disease, childhood asthma, and diabetes change following RCI's program and additional neighborhood investments from the city?^{160, 161}
5. **Foreign Direct Investment:** How many outside investments did the city receive after RCI's companies scaled? How many BIPOC-focused equity funds were created in Pittsburgh after RCI's REEF launched?

RCI is in a prime position to address entrepreneurial gaps in Pittsburgh starting with a **baseline analysis** of Pittsburgh neighborhoods. RCI and 17AM are identifying Pittsburgh's needs from a problem mapping perspective. Certain types of businesses can be considered "high-priority" when REEF is launched. We believe that this approach will achieve several outcomes:

1. Allow BIPOC communities to earn livable incomes,
2. Heal Pittsburgh's sustainability challenges,
3. Produce high-growth startups that will elevate Pittsburgh to the next level of innovation, thereby attracting more residents, outside funding, and prosperity.¹⁶²

RCI will bridge a gap between Pittsburgh's "innovation" and "non-innovation" economies. Advanced technologies like robotics and AI will continue to draw attention to Pittsburgh, but lifestyle businesses will be the lifeblood of the city, drawing residents and outside capital into its communities.

¹⁵⁹ Community Pulse Report (Oct 2020). "Pulse Report for Children & Families." (Slide 7,13,19);

https://static1.squarespace.com/static/56b860aa45bf2151de603f28/t/5fd7ad8b38e6e773f62626db/1607970192483/%5BFull+Version%5D+Community+Pulse+Report_October.pdf

¹⁶⁰ Ibid - Irving, 2019

¹⁶¹ Ibid - May et al, 2018

¹⁶² Stakeholder interviews facilitated by 17AM.

CONCLUSION

Pittsburgh is a highly investable city with the potential to uplift its entire BIPOC population. 17AM and RCI seek to create a new Pittsburgh in which BIPOC communities feel welcome and thrive economically. This will involve forging new alliances between Pittsburgh stakeholders and facilitating investments in BIPOC communities at community, workforce, and entrepreneurship levels. RCI envisions that investing in BIPOC entrepreneurship is an underappreciated way to revitalize Pittsburgh, diversify corporate supply chains, and put economic autonomy in the hands of BIPOC people.

RCI's accelerator program is designed to pave the way for all BIPOC Pittsburghers to achieve livable wages and settle in an "intelligent city." BIPOC communities have long compromised with their fate in Pittsburgh and it's time that we serve their needs. Pittsburgh can evolve from its legacy as a "racist relic." It's time to bring Pittsburgh to the future by investing in its most vulnerable populations. It will bring forth economic prosperity for all. We encourage our experts and investors to consider getting involved with RCI in order to directly participate in this transformative effort.

We hope that investors and stakeholders now understand all that BIPOC Pittsburghers contend with and the power that capital has to address systemic issues in BIPOC entrepreneurship and economic development.

Please reach out to us at research@17assetmanagement.com if you are interested in working with us in our ongoing research and capital mobilization efforts.

Appendices

Data collection and Methodology

This report follows 17 Asset Management's design thinking methodology, a deliberate and organized framework that welcomes all voices and ensures full participation among stakeholders at every stage, from ideation to implementation. Using our design thinking methodology, 17 Asset Management engaged **15 local investors, anchor institutions, academics, entrepreneurs, and other key stakeholders** to assess investment opportunities and development needs across Pittsburgh. These insights revealed a compelling rationale for the mobilization and creation of an accelerator fund directed towards BIPOC businesses to advance their interests and those of the city overall.

Glossary

Advanced technology / technical businesses: companies whose primary source of income are digital, data science, algorithmic, or software-based services or products. Examples can be found in hardware and robotics, cybersecurity, telecommunications, AI, autonomous vehicles, or modern pharmaceuticals (drug development).

Anchor institutions: organizations with an important presence or stake within a specific place. They usually hold substantial economic power given their revenue-garnering and spending patterns, the employment they create, and their key role in promoting local private sector development. Functions can include real estate development, business incubation, public and private investments, the development of human capital, or serving as low-interest lending institutions. Examples of anchor institutions are universities, hospitals, large local businesses, cultural institutions, community foundations, trade unions, housing associations, or faith-based institutions. ^{163, 164, 165}

Brain belt cities: classic rust belt cities such as Akron or Albany that have reinvented themselves as centers for manufacturing and technology. Such cities are characterized, among others, by a skilled manufacturing workforce, high-tech facilities, well-developed educational institutions, low opportunity costs, attractive living conditions, and a culture of free-thinking and innovation. Clustering leading research institutions and companies in both the public and private sector, “brain belt cities” create intertwined multidisciplinary networks also referred to as “brain-sharing ecosystems,” with a collaborative open-source environment that fuels mutual development. ^{166, 167}

163 CLES. “What is an anchor institution?” <https://cles.org.uk/>

164 Community Wealth. “Anchor Institutions.” <https://community-wealth.org/strategies/panel/anchors/index.html>

165 Penn Institute for Urban Research (Penn IUR) (2010). “Anchor Institutions & Their Role in Metropolitan Change.” <https://penniur.upenn.edu/uploads/media/anchor-institutions-and-their-role-in-metropolitan-change-1.pdf>

166 Carducci (2016). “From Rust Belt to Brain Belt: The Smartest Places on Earth.” Pop Matters. <https://www.popmatters.com/the-smartest-places-on-earth-by-antoine-van-agtmael-and-fred-bakker-2495414426.html>

167 Putre (2016). “From Rust Belt to Brain Belt: How Older Manufacturing Cities Are Remaking Themselves.” <https://www.industryweek.com/innovation/article/21973635/from-rust-belt-to-brain-belt-how-older-manufacturing-cities-are-remaking-themselves>

Brick and mortar is a retailer or business that operates at least one physical location for customers to visit. Examples of brick-and-mortar stores are coffee shops, banks, grocery stores, and clothing stores. ^{168, 169}

Community development financial institutions (CDFIs): private financial institutions focused on fostering community development in hard-to-access markets across the U.S., offering financial services, loans and investments, as well as training and technical assistance services to individuals and communities in need. Rather than targeting profit-maximization, CDFIs measure their success based on a double bottom line that combines economic gains and the contributions made to local communities. There are six basic types of CDFIs: community development banks, community development loan funds, community development credit unions, microenterprise funds, community development corporation-based lenders and investors, and community development venture funds. ^{170, 171}

Diversity, Equity, and Inclusion (DEI): the combination of three distinct yet interconnected values at the core of both today's business and society. Diversity stands for the presence of differences within a given setting across a palette of race and ethnicity, gender and gender identity, sexual orientation, socioeconomic status, language, culture, nationality, religion, age, (dis)ability status, and political perspective. Equity means ensuring that everyone, regardless of their differences, is offered access to the same treatment, opportunities, and advancement. Inclusion refers to how each person feels valued, welcomed, and connected within a certain group. ^{172, 173, 174}

It is important to focus on each component of DEI as "a focus on diversity alone is insufficient because an employee's sense of belonging (inclusion) and experience of fairness (equity) is critically important." ¹⁷⁵

"Eds and Meds:" institutions in higher education and health care, can be considered powerful economic forces for cities and communities. They differ from classic corporations in that they do not engage directly in profit-making activities, do not pay local property taxes, and frequently offer

¹⁶⁸ Corporate Finance Institute (CFI) (2021). "What Does Brick and Mortar Mean?"

<https://corporatefinanceinstitute.com/resources/knowledge/strategy/brick-and-mortar/>

¹⁶⁹ Ward (2020). "What Is a Brick-and-Mortar?" The Balance Small Business. <https://www.thebalancesmb.com/a-definition-of-bricks-and-mortar-2947959>

¹⁷⁰ CDFI Coalition (2021). "About CDFIs." <https://cdfi.org/about-cdfis/>

¹⁷¹ Opportunity Finance Network (2021). "What is a CDFI?" <https://ofn.org/what-cdfi>

¹⁷² Ideal (2021). "What Diversity, Equity and Inclusion Really Mean." <https://ideal.com/diversity-equity-inclusion/>

¹⁷³ Ricee (April 2021). "What is DEI & EDI? – The Complete Guide." Diversity for Social Impact. <https://diversity.social/what-is-diversity-and-inclusion/>

¹⁷⁴ University of Michigan (2021). "Defining diversity, equity and inclusion." <https://diversity.umich.edu/about/defining-dei/>

¹⁷⁵ Ly (2021). "The True Value of Bringing Diversity, Equity, and Inclusion Into Your Workplace." 15Five. <https://www.15five.com/blog/diversity-equity-and-inclusion/>

municipal services and "in-kind" contributions or technical assistance. Eds and meds maintain close ties to their physical locations, own valuable real estate, and usually depend on a locally available workforce. As a result, they count among the largest private employers in big U.S. cities and are highly correlated with the economic and social well-being of local communities. ^{176, 177}

Employer firms: businesses with paid staff other than the owner.

Innovation districts: geographic areas where anchor institutions and companies convene and connect with start-ups, business incubators, and accelerators. Typically, they dispose of well-connected infrastructure and transit systems, providing a mix of housing, retail, and office spaces that feature proximity, vibrancy, and quality of life. By combining economic, physical, and networking assets, they create an innovation ecosystem that drives the generation of ideas, technological transformation, and the creation of jobs and income. Examples in the U.S. include Atlanta, Baltimore, Buffalo, Cleveland, Detroit, Houston, Philadelphia, Pittsburgh, and San Diego. International examples include Barcelona, Berlin, London, Seoul, Stockholm, and Toronto. ^{178, 179}

Intelligent city: a human-centered, racially equitable, diverse, and prosperous city. This type of city leverages its robust integrated technology (IoT), transportation, and climate resilience efforts to protect its most vulnerable populations first. It also measures the economic benefits of investing in BIPOC communities. This city is technologically savvy, healthy, inclusive, and culturally rich.

Internalized racism: private racial beliefs. For people of color, internalized oppression can involve believing in negative ideas about oneself or one's racial group. For white people, internalized privilege can involve feeling superior and entitled or harboring negative beliefs about people of color. **Structural racism**, on the other hand, refers to the interaction of history, culture, public policy, institutional practices, and personal beliefs that sustain racial hierarchies. ¹⁸⁰

¹⁷⁶ Silverman, Robert Mark. "Rethinking shrinking cities: Peripheral dual cities have arrived." *Journal of Urban Affairs* 42.3 (2020): 294-311.

¹⁷⁷ Ibid - Penn IUR, 2014 (pg. 2-3).

¹⁷⁸ Wagner et al (2019). "The Evolution of Innovation Districts, The New Geography of Global Innovation." The Global Institute on Innovation Districts. <https://www.giid.org/the-evolution-of-innovation-districts/>

¹⁷⁹ Katz & Wagner (2014). "The Rise of the Innovation District." Brookings Institution. <https://c24215cec6c97b637db6-9c0895f07c3474f6636f95b6bf3db172.ssl.cf1.rackcdn.com/content/metro-innovation-districts/-/media/programs/metro/images/innovation/innovationdistricts1.pdf>

¹⁸⁰ Ibid - Sherrill, 2018

Lifestyle business: a business that is created to enable the founder to sustain a particular level of income, maintain a particular lifestyle, or attract just enough revenue to meet the founder's personal needs. Lifestyle businesses can be found in a wide range of sectors, including leisure and tourism, food, fashion/beauty, retail, professional services, and the arts. In contrast, **growth businesses** work to achieve greater year-over-year profit and economic growth.^{182, 183, 184}

Makerspace: a communal public workshop where inventors or entrepreneurs can work on small personal projects.

Non-employer firms: businesses that have no paid employees other than the owners.

Non-technical businesses: businesses whose primary source of income are not digital, data science, algorithmic, or software-based services or products. Their goods and services might draw from unique aspects of the founding neighborhood and city. Examples include restaurants, cleaning services, event managers, law firms, grocery stores, and clothing stores.

Racial equity audit: accounting evaluation quantifying the racial repercussions of financial and commercial institutions.¹⁸⁵

Reparations: compensation or payments to the descendants of slavery and systemic injustice.

Smart city: a place that makes use of digital and telecommunication technologies to develop and apply sustainable practices to address growing urbanization challenges and benefit both local inhabitants and businesses. Beyond information and communication technologies, a smart city deploys upgraded transportation networks, advanced light and heating technologies, as well as efficient water supply and waste disposal facilities that permit the city to optimize the use of its resources and improve its carbon footprint. This also includes an efficient and responsive city administration, increased public safety, and health systems that align with the population's respective needs.^{186, 187}

¹⁸² Ibid - Peters et al, 2009

¹⁸³ Ibid - OECD, 2004

¹⁸⁴ Ibid - Truex, 2020

¹⁸⁵ Ctw Investment Group. "Racial Equity Audit." <https://ctwinvestmentgroup.com/racial-equity-audit>

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Tech-adjacent businesses: businesses whose primary source of income are not digital, data science, algorithmic, or software-based services or products. However, their goods, services, and daily operations are guided and improved upon by the usage of technological tools. Examples of such businesses are healthcare facilities, energy providers, online retailers, media outlets, and graphic designers.

White culture: The unquestioned standards of behavior as practiced by the vast majority of institutions in the United States. ¹⁸⁸

Vertical neighborhoods: an attempt to incorporate traditional neighborhood values such as social connectedness, safety, and proximity into high-rise structures. Occupants of classic high-rise buildings are often distant and fail to create a sense of community, which is where vertical neighborhoods come in. Multifunctional, self-sufficient, and environment-friendly buildings supported by amenities such as parks, restaurants, community centers, and residential and office spaces, that allow occupants to live, work, eat and shop in a single building. Social and spatial dimensions are translated vertically, and local communities are permitted to form a natural bond. ^{189, 190, 191}

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List of Acronyms

17AM 17 Asset Management

AI Artificial Intelligence

B2B Business-to-business

BIPOC Black, Indigenous, and People of Color

BRT Bus Rapid Transit System

CDFI Community development financial institution

CMU Carnegie Mellon University

DEI Diversity, Equity, and Inclusion

EBITDA Earnings before interest, taxes, depreciation, and amortization

GDP Gross Domestic Product

GTM Go-to-market

KPI Key performance indicator

LISC Local Initiatives Support Corporation

NETS National Establishment Time-Series

OECD Organization for Economic Co-operation and Development

PBEOC Pittsburgh Black Elected Officials Coalition

PPP Paycheck Program Program

PRI Program-related investment

R&D Research and Development

RCI Riverside Center for Innovation

RFP Request for proposal

ROI Return on investment

STEM Science, technology, engineering, mathematics

U Pitt University of Pittsburgh

UPMC University of Pittsburgh Medical Center

VC Venture capital

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