

Jersey City's Tech Transformation

The NYUSPS Urban Lab at the Schack Institute of Real Estate develops new understanding of the economic and real estate trends that are shaping our cities.

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Introduction

It was a trying time in New York history. The city was in the process of rebuilding from a major terrorist attack, only to be hit by the worst financial crisis since the Great Depression. In addition to widespread layoffs and unemployment, Wall Street's downfall resulted in lower tax revenues for both state and local governments in New York and New Jersey.[1] Even as the market began to heal, many predicted it would take years for the city to recover. But to their surprise, New York bounced back at warp speed, thanks to burgeoning industries like education and health services, leisure and hospitality, and retail trade. By 2009, New York's diverse economy had repositioned the city for long-term growth.

It was the beginning of a new era—one that valued creativity and innovation as well as capital. During this time, the city's technology sector rose to the forefront, with high-tech companies attracting the lion's share of venture capital investment. In the last ten years, New York's tech sector has grown by 30 percent—three times the rate of the national tech ecosystem. From 2013 to 2016, the New York metro added nearly 40,000 tech workers, bringing the total to more than 325,000. By 2016, the metro attracted 5 percent of global venture capital (\$2.1 billion), the fourth largest share in the world. The majority of this investment was located in Manhattan, New York's central economic hub.

Today, companies like Google and IBM are pillars of the New York City economy—and the envy of smaller tech cities looking to secure funding. But in recent years, companies like Etsy, Livestream, and Vice Media have migrated to nearby Brooklyn, lured by cheaper office space and more affordable housing. Even Queens, the city's most populous borough, has attracted major developments like the \$2 billion Cornell Tech Campus.[2]

This outward expansion is not limited to the five boroughs. In recent years, Jersey City has captured the attention of New York residents thanks to its access, affordability, and budding startup atmosphere. Located just under a mile from Manhattan, Jersey City has seen a rise in development, job creation, and small business creation over the last few years. This growth has made way for new cultural amenities such as galleries, bookstores, restaurants, and farmers markets. But the city's transformation is just beginning.

Jersey City's Transformation

For most of the 20th century, Jersey City was highly dependent on manufacturing, transportation, and distribution. By the 1970s, the city had declined economically and socially. Many residents relocated to the suburbs: Between 1950 and 1980, Jersey City lost an estimated 75,000 residents. From 1975 to 1982 alone, the city lost 5,000 jobs, or around 9 percent of its workforce. [3] This economic downturn—coupled with rampant crime, poverty, and political corruption—left the city nearly destitute.

By the turn of the millennium, Jersey City experienced the kind of massive renaissance seen across many urban areas, fueled by a rise in knowledge-based professions including finance, insurance, and real estate. Over the next few decades, the city's redeveloped waterfront evolved into a center for major businesses. Where residents once saw old factories and railyards, they soon discovered high-rise buildings and a new transportation system that included a trolley and ferry service directly to Manhattan. The area, traditionally known as Exchange Place, garnered the nickname "Wall Street West."

As more firms relocated from Brooklyn and Manhattan, Jersey City cultivated a reputation as New York City's sixth borough. With that, Jersey City is now positioned to become a key player in the markets of New York City and global tech hubs, bringing in more workers and becoming a strong business alternative to New York City. More recently, it has developed a distinct identity as a hub for families and young professionals. Mayor Steven Fulop, who was elected to his first term in 2013, sits at the helm of this transformation. Since 2013, the Fulop administration has set its sights on expanding development and encouraging the growth of small businesses in Jersey City. Between 2013 and 2017 the city witnessed the creation of 600 small businesses, including restaurants and retailers.[4] In 2016, the administration also raised the minimum wage of city employees to \$15 an hour, which improved the lives of more than 500 workers.[5]

For Fulop, one of Jersey City's greatest strengths has always been its size. "We're big enough that we're relevant ... but also small enough that we're still very manageable," he says. Where larger cities like New York and San Francisco suffer from barriers to economic opportunity and mobility, starting a business or finding a job in Jersey City is relatively easy. Much of this has to do with the city's small-town feel, which encourages collaboration among residents. "When you're in Jersey City, you feel a part of something more than just an office," says Chief Innovation Officer Brian Platt. "You feel part of a community."

This small-town atmosphere includes direct access to the mayor's office and other branches of local government. In Jersey City, it is not uncommon for the mayor to attend local ribbon-cutting ceremonies, or directly respond to residents on email or social media. According to Platt, this intimate relationship helps build confidence among small business owners in Jersey City.

Jersey City also has garnered broader attention in recent years. Between 2010 and 2015, the city's population increased by 4.8 percent, exceeding the rates of all five New York boroughs and across New Jersey. Much of this talent is creative class—people in science and engineering, architecture and design, education, arts, music, and entertainment—whose economic function is to create new ideas, technology, and creative content. Today, Jersey City boasts around 47,000 creative workers, or 40.8 percent of the total workforce—a share that exceeds each of the New York City's five boroughs. On average, creative workers in Jersey City earn more than \$86,000 a year—just \$7,300 less than their Manhattan counterparts.

Together, business and management occupations represent the largest share of Jersey City's creative workforce at 43 percent, or around 17,500 workers. Although management workers have the highest earnings of any creative occupation in Jersey City—\$160,000 on average annually—business and finance workers earn significantly less by comparison at around \$98,000 annually. Some of the city's highest earning creative professionals include those in the legal profession (\$122,000), while low-earning professionals often hail from the education (\$62,000), or arts, media, and design (\$66,000) sectors.

Figure 1. Jersey City Creative Clusters

	Location Quotient	Employment	Change in Employment 2010 -2015	Annual Salary
Computer and Mathematical	2.11	6,582	7%	\$106,555
Business and Financial Operations	1.99	10,839	0%	\$98,076
Management	1.24	6,681	3%	\$159,690
Education	1.23	7,907	7%	\$62,177
Arts, Media, and Design	0.79	1,183	11%	\$66,288
Community and Social Services	0.77	1,406	11%	\$51,230
Legal	0.66	530	4%	\$121,756
Healthcare Practitioners	0.65	3,972	7%	\$82,543
Science	0.57	505	-5%	\$77,334
Architecture and Engineering	0.35	656	0%	\$89,619

Source: QCEW Employees, Non-QCEW Employees - EMSI 2017.1 Class of Worker

Another 73,000 Jersey City creative workers reside in the city itself. Creative residents make up 55.7 percent of Jersey City's total population—a share that exceeds that of every borough but Manhattan. The city also has expanded its international presence with the number of Chinese investors, millennial upstarts, and immigrant talent rising. As of 2015, H-1B visa holders comprised 11.2 percent of the city's workforce, or more than 12,800 workers. This diversity is reflected in the city's \$1.2 billion "Make It Yours" campaign, which positions Jersey City as a hub for artists, families, and young professionals.[6]

Yet another element of Jersey City's appeal is its reputation for safety, walkability, and accessible transportation. Each day, the Grove Street PATH station provides easy access to Manhattan, bringing commuters to Manhattan's World Trade Center in less than 10 minutes, and to Midtown's Port Authority in around 20 minutes. Jersey City's Harborside neighborhood is just under 15 minutes from Lower Manhattan, and 31 minutes from Grand Central Station.

The city also is in the process of constructing a fourth ferry terminal that will offer connections from Harborside to Midtown Manhattan and Battery Park City. In 2016, Redfin ranked Jersey City as the second best mid-sized city for public transit, behind Cambridge, Massachusetts.[7] And in 2018, *Business Insider* ranked Jersey City fifth among major US cities with the best public transportation.[8] As a result of this access, the number of residents who commute out of Jersey City for work is slightly higher than the number of outsiders who commute into the city each day.

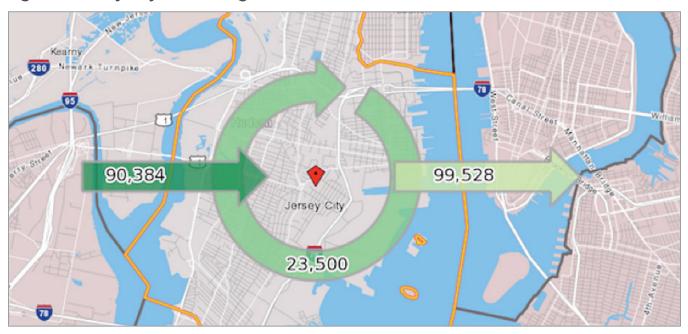


Figure 2. Jersey City Commuting Patterns

Source: US Census American Community Survey 2015

Note: Direction of arrow does not indicate directional inflow/outflow of workers.

The city's access and affordability also has contributed to its "youthification." As of 2017, nearly 28 percent of the population was between 22 and 34 years old.[9] Indeed, when it comes to defining the current Jersey City brand, Fulop uses words like energetic, young, vibrant, and culturally diverse. "Do I think that we can check every one of those boxes perfectly in every community? No," he says, "[But] I think we've done a good job over the last couple of years of moving the city from a bedroom community of very cold-looking high rises to a place that's more dynamic." A key part of this strategy is touting the city's affordability to younger residents.

The Affordability Challenge

One of Jersey City's strongest assets is its affordable real estate. Over the last few years, the city has become an appealing alternative to residents experiencing sticker shock in Brooklyn or Manhattan. While the average 500-square-foot studio costs around \$4,100 per month in Manhattan and \$2,700 per month in Brooklyn, the same studio costs just \$2,100 in Jersey City. This discount extends to larger apartments as well: On average, a 5,000-square-foot, three-bedroom apartment costs around \$13,800 per month in Manhattan, \$7,100 per month in Brooklyn, and \$5,500 per month in Jersey City. In addition to home renters, large companies have started to take advantage of the city's lower real estate prices. As of 2017, the average rent for Class-A office space was about a third less expensive in Jersey City than in Manhattan.

Inspired by the renewed interest in its real estate sector, Jersey City has developed a few innovative solutions to lure new tenants to the area. Most notably, the city has partnered with the state to offer tax incentives to tenants in Harborside and 101 Hudson Street (in the Exchange Place neighborhood). The decision is a welcome addition to the state's current incentive packages, which are mainly geared toward older, existing firms as opposed to startups and small businesses. In addition to being the largest net job creators in the US, startups and small firms generate demand for new businesses and venture capital investment. [10] Like many New Jersey developments, Exchange Place has benefitted from those kind of state incentives: According to estimates from the development firm Mack-Cali, the Exchange Place incentives could yield a gross annual benefit of between \$7,000 and \$9,750 per employee. [11]

In addition to these development incentives, Jersey City also is a member of Airbnb's "Friendly Buildings Program," in which building owners receive a share of the profits from renting their rooms to Airbnb customers. In 2017, Urby, a Jersey City neighborhood, became

the first neighborhood to participate in the Airbnb program from the northeastern US. The program gives Jersey City yet another advantage over New York, which recently approved fines up to \$7,500 for owners who advertise short-term Airbnb rentals in buildings with three or more residential units.[12]

While these incentives are likely to draw in creative talent, Jersey City still has one of the priciest housing markets in the country. In August 2017, Jersey City was dubbed the fifth most expensive city for one-bedroom apartment rentals in the US, according to the personal finance website GoBankingRates. [13] These pricing concerns are have landed firmly on Mayor Fulop's radar: "The affordability component is the biggest challenge we have," he says. According to the city's housing plan, nearly half of Jersey City's renting households are considered "cost burdened," meaning they spend 30 percent or more of their annual income on housing. [14]

Part of this has to do with the city's large shares of service and blue-collar workers. As of 2015, around 44 percent of Jersey City workers were employed in low-skill, service-based occupations, such as food preparation, retail trade, and personal care. Of these 50,500 workers, nearly half (49 percent) were employed in clerical and administrative support positions, which bolster the city's financial services sector. Another 15 percent of the city's employees hailed from the working class. While Jersey City only employs around 17,400 blue-collar workers, occupations in that sector are among the fastest-growing in the region. Notably, construction jobs in the city grew by 27 percent from 2010 to 2015.

Figure 3. Jersey City Employment and Residents

	Employment	Share of Employment	Residents	Share of Residents
Creative Class	46,738	40.8%	72,842	55.7%
Service Class	50,517	44.1%	47,390	36.2%
Working Class	17,362	15.1%	40,432	30.9%

Source: QCEW Employees, Non-QCEW Employees - EMSI 2017.1 Class of Worker, and U.S. Census American Community Survey 2015

But with workers in service and blue-collar fields earning significantly less than their creative counterparts, Jersey City has struggled to make neighborhoods affordable for the majority of its workforce (59.2 percent) and more than half (55 percent) of local residents.

Jersey City's Tech Advantage

The solution to many of these equity and affordability challenges lies in the city's technology sector. As of September 2017, Jersey City had the highest concentration of tech workers in the entire New York metropolitan region. In total, 16 percent of the city's creative residents are employed in computer and mathematical professions, compared to just 3 percent of creative residents in Manhattan. As the city's primary export, computer and mathematical occupations are expected to grow another 7 percent from 2015 to 2020. The city's concentration of software application developers and computer systems analysts also is more than double the US national average. Workers who pursue a career in these industries earn on average 27 percent more than their peers in Queens, for example, another New York City borough that is making efforts to grow its tech startup scene.

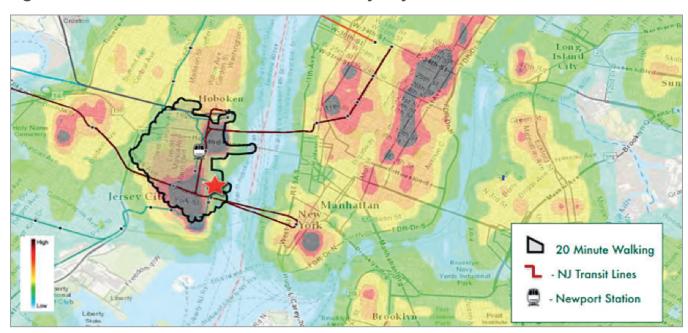


Figure 4. Concentration of Tech Workers in Jersey City

Source: CBRE Labor Analytics

For the most part, the rise of technology workers in Jersey City has been fueled by the arrival of major companies like Forbes, Ernst & Young, Omnicom, and Newell Rubbermaid. According to Platt, many large, New York-based corporations move to Jersey City as a way to consolidate their offices. As a result, the city has developed a synergy between local companies and the regional banking industry, with institutions like the Bank of New York Mellon forming their own in-house research and development teams. "There's a lot of energy and excitement around Jersey City as a growing scene for tech startups and tech-related businesses," says Platt.

Of all the tech-focused industries in Jersey City, biotechnology is among the strongest assets. "Historically, Jersey City has been dominated by healthcare and finance industries," says Platt. "What we're seeing is a shift [within] those types of industries to rely more on technology." As its healthcare industry continues to grow, Jersey City has attracted a number of biotech companies from nearby suburbs like Westchester and Northern New Jersey. At the same time, it has engendered many emerging biotech startups, such as Synexis, a company whose innovative therapies help treat life-threatening infections. The ability to attract both new and existing companies has created much-needed diversity within Jersey City's startup community. "We're seeing anything from your two-person startup that's working out of someone's apartment on nights and weekends to 100-plus-person companies," says Platt.

Still, most of Jersey City's largest, and most profitable, firms are headquartered across the Hudson. Rather than attempt to attract a major anchor institution, like the Prudential Center in Newark, the city has focused on encouraging small businesses growth. "The more attractive businesses in the area are some of the smaller, rising ones," says Fulop. He predicts that these companies "will be more important to the long-term growth of the city than engaging in ... large corporation rat races." Indeed, the mayor has centered his administration on local investment as opposed to talent attraction. "I don't really subscribe to that, 'If you build it, they will come' [mentality]," he says. At the same time, Fulop says Jersey City is on the lookout for a "home run" that can catapult its tech sector to new heights.

One of the strongest pathways to growth lies in the city's research universities. Located just a few miles away from the city, the Stevens Institute of Technology provides a major source of talent and innovation. As the nation's first college dedicated solely to mechanical engineering, the institute has a global reputation for research and entrepreneurship. Since its founding in 1870, Stevens has developed three Centers of Excellence, which focus on maritime commerce, engineering, and small ship design. According to *Forbes Asia*, the institute is now "remaking itself as the preeminent training ground for Wall Street's financial engineers," with graduates going on to work for companies such as Google and Goldman Sachs.[15]

Despite its location in Newark, the New Jersey Institute of Technology also has had a "spillover" effect into Jersey City. In the last ten years, that university has doubled the size of its campus, increasing the number of technology professionals in the region. According to the US Department of Education, NJIT graduates have the highest earnings out of any public university graduates in the state. [16]

Jersey City also is home to the largest interactive science center in the New York metro area. Opened in 1993, Liberty Science Center contains a 300,000-square-foot learning complex, complete with museum exhibitions, K-12 classrooms and labs, teacher-development programs, and a planetarium. Each year, the complex attracts more than 650,000 visitors, including students, teachers, and parents. The center's Genius Gala also is a major fundraiser for the city that has brought in as much as \$3.5 million in a single night. Since joining the center in 2011, Liberty Science President and CEO Paul Hoffman has changed the trajectory of the city by livening up the museum's exhibits and catering to a younger demographic.

With Hoffman as a "point person," Mayor Fulop hopes to use the center as a mechanism for attracting larger corporations. In January 2018, the two groups teamed up to develop a "curated community" of tech entrepreneurs, scientists, students, and thought leaders known as SciTech Scity. The \$280 million project focuses on redeveloping the vacant land surrounding the center. To accomplish this goal, the Jersey City Redevelopment Agency deeded the property to SciTech Scity for a mere \$10. Once the project produces a surplus of more than \$78 million, Jersey City will earn 50 percent of the revenue until the land is paid off, at which point the city will receive 20 percent.[17]

In addition to philanthropic donations, much of the development is financed by private sponsors, including Verizon and Ernst & Young. Their funding will go toward constructing a new public K-12 school, research facility, hotel, and residential community, which will house a small number of the city's graduate students. [18] The project's initial construction is expected to generate \$200 million in economic impact, followed by an additional \$30 million annually. By supporting the center, Jersey City also anticipates the arrival of 3,500 new jobs. The project's long-term vision is to attract startup activity and spur local innovation in STEM fields. "When it works, it's going to change not just the face of Jersey City, but New Jersey," Hoffman told the local media site ROI-NJ. "Maybe we [can] incubate a company that comes up with something great and we can actually change the world." [19]

As it stands, Jersey City already hosts a number of promising startups. One of the most auspicious is a tech company called Wapanda, which produces an app that allows residents to select their preferred method of ride-sharing (taxi, black car, Uber, etc.) while negotiating with drivers over the price. The company began when co-founders Mihir Dange and Zahid Biviji saw the need to empower local drivers who had been "passed over" by services such as Uber and Lyft. As longtime Jersey City residents, both Dange and Biviji saw economic opportunity in the city's racial and class diversity, along with the constant flow of people traveling to and from Manhattan, to build out a new transportation-focused app.

In particular, the founders were drawn to Jersey City's minimal barriers to entry. "We could see very palpably in Jersey City that [we could] legitimately change behaviors in a meaningful way," Biviji says. "What defines Jersey City ... is that people are more receptive to your ideas and helping you foster them, especially in the startup community. We come from the finance community, which tends to hoard ideas, thoughts, and contacts. In the startup community, especially in Jersey City, people have been pretty forthright and want to help."

Although Wapanda is focused on perfecting its local model, its founders are keenly aware of opportunities in Manhattan. Their long-term strategy, Dange says, is to expand into cities that strategically wrap around New York before arriving in full force. While their company grows, both Dange and Biviji have chosen to rent a co-working unit in Manhattan to maintain easy access to meetings in New York City. But as Jersey City's tech community continues to rise, the need to travel outside the city could soon diminish. As of now, the city is only beginning to tap into the strength of its local resources.

What Startups Want

As Jersey City expands its tech community, it must consider ways to continue to attract and incubate startups. According to research from the University of Toronto, investment in startups is strongly correlated with population density, meaning that denser areas tend to attract greater investment. As of 2013, more than half of venture capital investment (54 percent) and nearly six in ten startups (57 percent) in the US were located in urban ZIP codes. In New York City alone, more than 80 percent of venture capital investment went to dense, walkable neighborhoods in urban ZIP codes. This poses a significant obstacle for Jersey City, which has around 32 times fewer residents than New York City.

Still, research shows that smaller, less dense cities can rely on other characteristics such as diversity, cultural richness, and tolerance to attract new companies. On this score, Jersey City performs relatively well. The city is one of the most ethnically diverse in the world, with black residents making up more than a quarter of its population, Hispanic or Latino residents making up 27.6 percent, and Asian residents making up another 23 percent. Though white residents still represent the majority at 32 percent of the population, they outnumber other demographics by only a small margin.

Yet another area startups must look at is available office space. Commercial building has increased sizably in the past several years in Jersey City, leading to a potential surplus in office space as builders move faster than companies grow, or rent space. Many of today's startups are drawn to industrial or warehouse buildings that provide flexible, adaptable work spaces for their employees. Co-working spaces like WeWork serve as ideal locations, since

they are both affordable and provide access to a network of local talent. Indeed, research suggests that these communal environments may be even more critical to entrepreneurial success than one's technical training. While today's tech economy prioritizes the best and brightest, it also hinges on strong attachments between workers, their city, and local institutions. This "stickiness" allows for diverse interactions, which often spur innovation and economic growth.

Many of today's strongest networking opportunities occur in New York City, where two-thirds of tech startup founders hail from non-STEM fields. In fact, the average tech founder in New York City is more likely to have studied a non-technical subject in college than a technical one. While this may signify fewer barriers to entry in the tech economy, it also underscores the importance of forming connections over time. For Jersey City, universities like the Stevens Institute and co-working spaces like Andco, WorkSocial, and Mission 50 are fitting venues in which to begin these conversations. Still, they must work to establish themselves as loci of community interaction.

What More Does Jersey City Need?

Perhaps the greatest challenge for Jersey City is to carve out a unique identity separate from New York or New Jersey. "People from Jersey see it as a subset of the New York metro market and people from New York see it as a subset of the Newark market. We're neither one of them," says Marcos Vigil, the city's former Deputy Mayor. Instead, Vigil draws a parallel between Jersey City's relationship to New York and Oakland's relationship to San Francisco. While both Jersey City and Oakland attract talent from their superstar neighbors, they have each developed their own venerable tech ecosystems. What Jersey City currently lacks is an agenda for growing its tech economy and positioning itself for long-term economic prosperity. The following actions can help streamline the city's vision for becoming a national—or even global—hub for tech talent.

1. Develop an intentional strategy.

Jersey City has successfully identified its strengths and weaknesses when it comes to local economic development. Now, the city requires a strategy for leveraging its unique assets, which Fulop admits are "underutilized." In addition to developing a broad vision for the future of its technology industry, Jersey City must identify individual partners and stakeholders to oversee the tech industry's growth. The city also must adjust the workload of its staff to align with its priorities for improving the size, strength, and diversity of its tech sector.

Most importantly, Jersey City must become an active participant in its tech ecosystem. According to Platt, tech companies frequently approach the Office of Innovation with ideas of how they can contribute to the city's future. "Oftentimes it's something we've never even thought about or maybe we didn't realize it was an issue that we needed to address," he says. Moving forward, the city must actively seek out new opportunities in the tech sector, bearing in mind its current industry strengths. While organizations such as the Jersey City Tech Meetup allow businesses to connect with one another, the city should be proactive, not reactive, in its search for new collaborations and partnerships.

2. Designate a point person.

To ensure that its goals are met on time and on budget, Jersey City must designate a highly engaged project manager to oversee its strategy. This manager should be responsible for coordinating with stakeholders, identifying necessary resources, and interpreting data to determine whether the city has achieved its target outcomes. At the moment, Mayor Fulop has been highly engaged in supporting local businesses and forging partnerships with universities, developers, and other key anchors. But the city cannot afford to rest on the dynamism of the mayor alone. In order to ensure that technology remains at the forefront of its economy, Jersey City must identify a leader whose sole focus is growing its technology sector.

3. Establish clear metrics.

Clear, well-defined metrics are a key element of any successful tech strategy. As Jersey City develops a vision for its technology sector, the city must establish specific timeframes for its goals, including start and end dates down to the quarter. The city also must collect extensive data to measure its progress and ensure that desired outcomes are being met.

4. Incorporate a plan for inclusivity.

As Jersey City attracts a growing share of companies and talent, the city must take extra precautions not to alienate low-income or minority residents. One way to ensure that the city remains inclusive is to partner with developers and other anchor institutions to build more affordable housing. In Baltimore, for instance, the East Baltimore Development Initiative partnered with Johns Hopkins University to construct homes for lower-income families and seniors, as well as graduate students, in Eager Park. Jersey City's growing partnership with the Stevens Institute of Technology presents a similar opportunity to encourage the spread of affordable housing. At the same time, the city must partner with local anchors to provide disadvantaged residents—and particularly young, low-income students—with technical skills, job training programs, and employment pipelines.

As the city continues to develop, it also must reconsider the design of its public spaces. By creating spaces that are open to the entire Jersey City community—and encourage interactions between people of all socioeconomic, racial, ethnic, and age categories—the city will be investing in its long-term sustainability. At the same time, Jersey City must leverage its tech talent by creating opportunities for innovation within the service sector. This means encouraging local tech companies to nurture relationships between their customers, creative workers, and service staff.

5. Strengthen university partnerships.

In addition to engaging local universities in inclusive prosperity, Jersey City must integrate university campuses into its downtown community. This strategy has proven successful in places like Downtown Phoenix, where the arrival of signature Arizona State University programs transformed the area into a thriving metropolis featuring new restaurants, shops, hotels, and housing developments. In the nearly eight years following ASU's arrival in the central business district, Phoenix more than doubled its downtown sales-tax revenue, from \$4.2 million to \$8.7 million annually.[20]

At the moment, Jersey City benefits from university spillover effects from Hoboken (Stevens Institute of Technology), Newark (New Jersey Institute of Technology), Princeton (Princeton University), New Brunswick (Rutgers University), and even some New York-based institutions (New York University, Columbia University, The New School, Pace University). But in order to attract and retain its tech talent, the city will need to designate its own university anchor.

6. Cultivate a central hub of innovation.

The Jersey City community has already helped to incubate a number of small technology businesses. As these businesses continue to grow, they may soon become interested in expanding into Manhattan or other New York City boroughs. To ensure that Jersey City remains a home base for local tech companies, the city must cultivate its own central hub of innovation, thereby eliminating the need to set up office spaces in Manhattan or make frequent trips to and from New York City.

As it stands, SciTech Scity is poised to become the axis of Jersey City's innovation economy. In addition to its resources and amenities, the center is strategically located in Liberty State Park, near the Hudson River and Statue of Liberty. This location provides easy access to Manhattan, with the Lower East Side located only five miles away. The center also is nine miles from Newark Liberty International Airport, giving it close proximity to the international market. In today's increasingly global economy, this kind of access is critical.

In fact, research has shown that airports are key drivers of economic development and competitiveness in cities.[21]

7. Position Jersey City as a test bed for emerging startups.

Countless studies have demonstrated the importance of place branding to a city's overall economic development strategy. [22] Rather, than market itself as a premier destination for the world's leading tech firms, Jersey City can start by positioning itself as a test bed for emerging startups, where budding entrepreneurs can experiment with and evaluate the success of new ideas. With its small size and local innovation office, the city delivers the kind of personalized attention that is lacking in major tech hubs like New York and San Francisco.

Developing a startup ecosystem also can situate Jersey City as a unique regional asset. While the state of New Jersey hosts a considerable number of startups, very few of them scale into large businesses with more than 500 employees.[23] "It's difficult to take that step from an incubated product that's developed in an office and get it on the streets of the city," says Platt. "We're trying to make that step easier for smaller companies." In a state that struggles with small business growth, Jersey City can emerge as the dominant regional incubator.

8. Identify target clusters and opportunities for innovation.

Jersey City is at a crossroads when it comes to new development. To cater to the city's millennials and young professionals, developers have taken to renovating former manufacturing sites into trendy lofts or Class-A office space. At the same time, the city is cautious about undermining its industrial roots. "It wouldn't make sense to tip the scales and become overly residential and not allow industrial businesses to have a place here," says Annisia Cialone, the city's Director of City Planning. "One way that we can support innovative sectors is to have strong places to live, flexible commercial space, and a way to still manufacture all in the same city." Perhaps the best example of this mixed-used development is Industry City, a six million-square-foot retail and commercial complex in Brooklyn. In addition to offering creative office space, Industry City provides advanced and traditional manufacturing facilities, as well as event space for maker expos or industry trade shows. The space allows Brooklyn to accommodate these sectors, while finding opportunities to innovate within them.

Before designing these spaces, Jersey City must first identify its top industry clusters, or groups of related businesses in a defined geographic area. The function of these clusters is threefold: First, industry clusters provide opportunities for collaboration, since many

businesses share the same resources and operate within the same markets. Second, they help distinguish a community from its peers and define its role in the regional or national landscape. Finally, industry clusters encourage competition among local businesses, which often leads to innovation.

Once its top industry clusters have been identified, Jersey City can develop new partnerships between these clusters and its startup community. Upgrading jobs for clerical and administrative employees, for example, would strengthen its financial sector. The city also can become more deliberate with its development plans, helping make room for industrial companies that prioritize innovation.

Looking Ahead

Jersey City has reached a turning point in its history. For a community that once struggled to distinguish itself from neighboring areas in New York and New Jersey, the city has had remarkable success at attracting worldwide talent. With its access, affordability, and growing startup ecosystem, Jersey City is poised to become a leading center for technology and a global hub for young, creative professionals. In the past few years, Jersey City has been dubbed the most livable city in America, the best neighborhood in the New York City region, one of the best cities for young families and millennials, and the most artistic and green-friendly city in the US. [24] Given the city's previous history of decline, this is no small feat.

Though Jersey City's renaissance was the product of a much larger urban revival that swept across the nation, the city's economic upturn is one of the sharpest in the US. The time has come for Jersey City to capitalize on this momentum by investing more deliberately in its startup community. Already, tech companies and developers have established a presence along the waterfront and in the city's downtown core. Now, the city must channel these resources to catapult its tech sector to new heights.

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