

INNOVATION, TALENT, CULTURE:

Downtown Brooklyn's
Economic Growth

INTRODUCTION

As NYC's largest business district outside of Manhattan, Downtown Brooklyn has been the center of commerce in Brooklyn for over a century. Downtown Brooklyn's competitive advantage stems from its thriving business culture, exceptional access to talent, competitive real estate market, and unique amenities that make it a great place to live, work, play, shop, and visit. These assets have helped spur growth that has outpaced both the borough and the City in employment and firms, driven largely by the innovation sectors of tech + information and arts + entertainment.

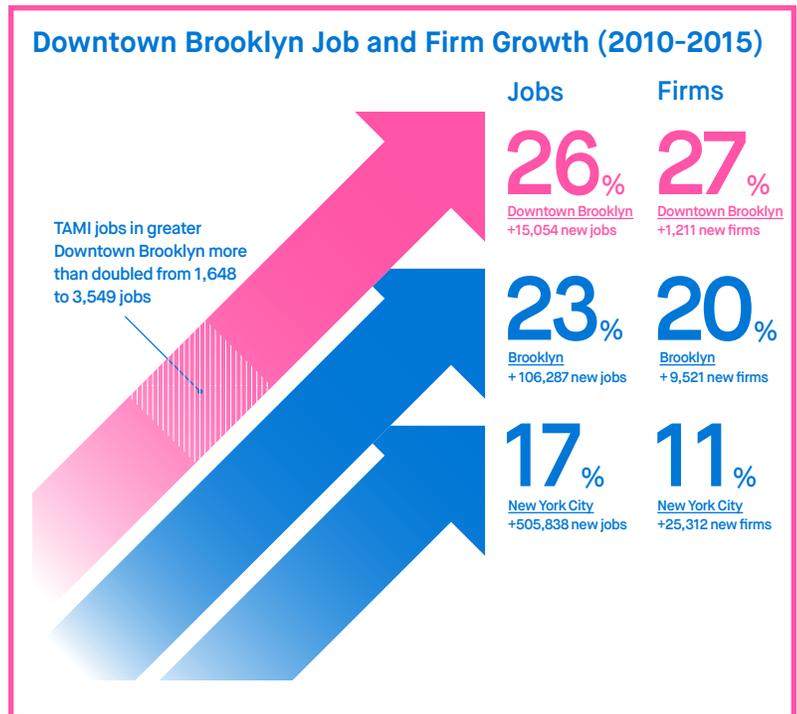
DOWNTOWN BROOKLYN'S THRIVING BUSINESS CULTURE

Job and Firm Growth

As NYC's third largest central business district, Downtown Brooklyn serves as the commercial and cultural center of the borough. Brooklyn has seen record employment and industry growth in recent years, and Downtown Brooklyn's economic growth is a major part of that story.

Greater Downtown Brooklyn has experienced significant growth in total jobs and businesses from 2010-2015, outpacing Brooklyn and NYC. Across all industries, Downtown Brooklyn added 15,054 jobs, a growth rate of 26%, and 1,211 firms, a growth rate of 27%.

These growth trends are also seen in Office, Retail, Entertainment, Accommodation, Food Services, and Industrial jobs. Job growth in Downtown Brooklyn exceeded that of Brooklyn and NYC in all macrosectors except for Education, Healthcare, and Social Assistance.



KEY FINDINGS

Job Growth: 15,054 new jobs were created in Downtown Brooklyn with a 26% increase in private sector employment from 2010-2015 – outpacing job growth in both Brooklyn and NYC.

Firm Growth: 1,211 new businesses were created in Downtown Brooklyn with a 27% increase in private sector firms from 2010-2015 – outpacing firm growth in both Brooklyn and NYC.

Robust Innovation Economy: Tech + information and arts + entertainment are the fastest-growing sectors in Downtown Brooklyn with NYU, City Tech, and other institutions investing in major capital and programmatic initiatives in the area.

Fueled by TAMI: TAMI firms and coworking tenants lead demand for commercial office space in Downtown Brooklyn. Brooklyn's growth in the number of residents with TAMI degrees outpaced that of Manhattan and NYC from 2012-2016.

Exceptional Access to Talent: Eleven higher education institutions with more than 45,000 undergrad and graduate students form a hub of entrepreneurship and innovation. More than 1.2M people aged 25 and over live within a 30-minute commute from Downtown Brooklyn, giving area employers access to a dynamic and diverse talent pool.

Space to Grow: With more than 3M SF of Class A office space in development, Downtown Brooklyn is poised to accommodate additional new jobs and business growth.

Job Growth by Macrosector in Downtown Brooklyn, Brooklyn, and NYC (2010-2015)

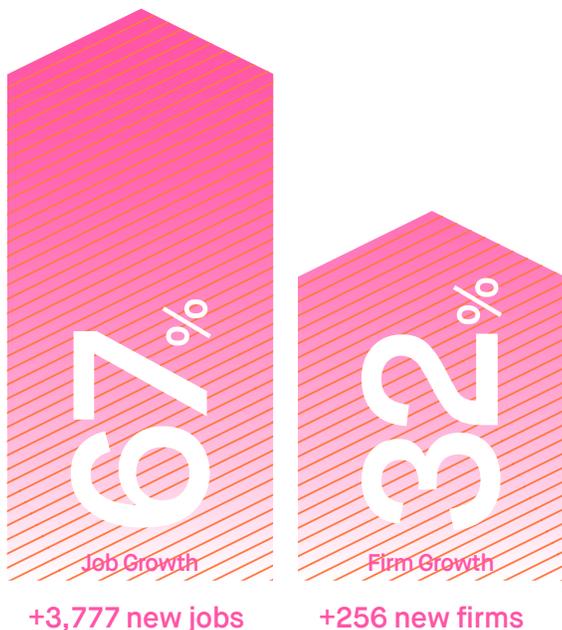


TAMI and the Innovation Sector

Technology, advertising, media, and information (TAMI) jobs more than doubled in Downtown Brooklyn between 2010 and 2015, growing from 1,648 private sector jobs to 3,549 jobs (+115%). TAMI firms grew 47% (+94 firms) over the same period. Downtown Brooklyn's job growth in the TAMI sectors exceeded both Brooklyn (33% growth, +4,676 jobs) and NYC (20% growth, +56,189 jobs).

This significant expansion in Downtown Brooklyn's economy is fueled by its unique combination of tech + information and arts + entertainment, two of the fastest-growing sectors in the district.

Tech + Information (2010-2015)



Job Growth by Subsector

- 1460% job growth (292 jobs created) in Management, Scientific + Technical Consulting
- 215% job growth (88 jobs created) in Sound Recording Industries
- 194% job growth (348 jobs created) in Advertising + Public Relations
- 54% job growth (540 jobs created) in Computer Systems Design

Firm Growth by Subsector

- 415% firm growth (83 firms created) in Management, Scientific + Technical Consulting
- 81% firm growth (46 firms created) in Motion Picture + Video Industries
- 68% firm growth (40 firms created) in Architecture + Engineering
- 41% firm growth (40 firms created) in Computer Systems Design

Arts + Entertainment (2010-2015)



Job Growth by Subsector

- 4722% job growth (425 jobs created) in Performing Arts + Sports Promoters
- 312% job growth (53 jobs created) in Independent Artists, Writers + Performers
- 56% job growth (321 jobs created) in Performing Arts Companies

Firm Growth by Subsector

- 300% firm growth (15 firms created) in Performing Arts + Sports Promoters
- 167% firm growth (10 firms created) in Agents + Managers for Artists, Athletes + Entertainers
- 100% firm growth (12 firms created) in Other Amusement + Recreation Industries

Downtown Brooklyn's arts business revenues grew an estimated 266% between 2010 and 2015, from \$94.8M to \$346.8M. This growth can be seen in the vitality of the Brooklyn Cultural District, now home to more than fifty arts and cultural organizations.

Sources: Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW), 2010 and 2015; U.S. Census Bureau; Office of the New York State Comptroller Thomas P. DiNapoli

GROWING INNOVATION HUB

Eleven higher education institutions foster strong industry partnerships that benefit local businesses and produce a talented, prepared, and tech-savvy workforce.

Downtown Brooklyn Higher Education Institutions

- Berkeley College
- Brooklyn College Feirstein School of Cinema
- Brooklyn Law School
- Long Island University (LIU) Brooklyn
- New York City College of Technology (City Tech)
- NYU Center for Urban Science and Progress
- NYU Tandon School of Engineering
- Pratt Institute
- St. Francis College
- St. Joseph's College
- SUNY Empire State College at Brooklyn

45,000+

undergrad + grad students

7,000+

degrees awarded annually
(2016-2017)

1,750+

faculty
members

27+

industry +
research labs

Numerous industry research labs and incubators with specializations that cut across emerging innovation sectors allow students and faculty to collaborate with corporate partners doing business throughout the City.

Prominent examples include:

- NYU Media and Games Network (MAGNET)'s Brooklyn Experimental Media Center and Game Innovation Lab
- NYU Tandon's MakerSpace, Design Lab, and Future Labs programs and the forthcoming AR/VR lab at the Brooklyn Navy Yard
- Brooklyn Law School's Center for Urban Business Entrepreneurship
- City Tech's Open Lab
- LIU Brooklyn's Center for Entrepreneurship and Innovation
- Pratt's Brooklyn Fashion and Design Accelerator, Consortium for Research and Robotics, and Spatial Analysis and Visualization Initiative

Venture Capital Investment

Venture capital investment in Brooklyn businesses experienced tremendous growth between 2012 and 2016. During this time the total value of all deals grew 1271%, from \$90M to \$1.23B. Nearly 180 companies received venture capital funding in 2016, with internet and mobile companies comprising more than half (55%) of all funding recipients.

Sources: CB Insights; Institutional websites and surveys

EXCEPTIONAL ACCESS TO TALENT

Downtown Brooklyn companies benefit from access to a strong, growing labor force both in the immediate area and throughout the city and beyond.

Highly-Educated Local Workforce

The residential population of Downtown Brooklyn grew 31% between 2010 and 2016, from 34,873 residents to 45,639 residents. In 2016, the average age of residents was 34.2 years and average household income was \$140,678.

The population of Downtown Brooklyn residents aged 25 years and over with higher education credentials also increased in recent years. In 2016, nearly two-thirds of this population (61% or 20,767 people) held a Bachelor's Degree or higher, a 29% increase since 2012. Approximately one-third of the population aged 25 years and over (30% or 10,037 people) held a graduate or advanced degree, a 33% increase since 2012.

In 2016, the share of the population aged 25 years and over with a Bachelor's Degree or higher in Downtown Brooklyn exceeded that of Manhattan (60%) and Brooklyn (34%) as well as NYC (36%). The growth rate of residents with a Bachelor's Degree or higher in Downtown Brooklyn from 2012 to 2016 was also greater than the growth seen in Brooklyn, Manhattan, and NYC during the same time period.

Downtown Brooklyn's innovation firms are employing borough residents. Today, 77% of Brooklyn Tech Triangle firms state that more than half of their employees live in Brooklyn, and 31% of firms state that all employees reside in the borough.

Transit Hub with Access to NYC's Best Talent

Downtown Brooklyn is served by 13 MTA subway lines, numerous bus routes, and the Long Island Railroad, which provide local firms with access to NYC's dynamic and diverse labor force.

Population Within 30-Minute Commute Shed (2016)



Boroughwide, Brooklyn has experienced greater increases in the number of residents with TAMI degrees than Manhattan and NYC as a whole. Between 2012 and 2016, the number of residents with Arts and Humanities degrees increased by 31% (+54,423 people) in Brooklyn, compared to an 8% increase in Manhattan and a 16% increase in NYC. During the same period, the number of residents with Science and Engineering degrees increased by 24% (+51,449 people) in Brooklyn, greater than that of both Manhattan (7%) and NYC (13%).

Sources: U.S. Census Bureau American Community Survey (ACS); Newmark Knight Frank

COMPETITIVE COMMERCIAL REAL ESTATE MARKET

Commercial Office Market Conditions

With record job and business growth, Downtown Brooklyn's office vacancy rate fell over the last decade and has remained low, with new businesses absorbing much of the 17M SF of existing office space. Vacancy dropped from 17% in 2008 to a very low 2-4% during 2014-2016. With new Class A office developments opening over the past year, Downtown Brooklyn's office vacancy sits at a competitive 6.7% as of early 2018.

In addition to Class A office and industrial loft space available for direct occupancy, Downtown Brooklyn is home to more than 152,000 SF of coworking space run by operators including WeWork, GreenDesk, and Spaces.

Job and firm growth continues despite relatively little development of new commercial office space. Approximately 550,000 SF of commercial office space came online between 2007 and 2017, with half delivered in 2016 and 2017 alone. JEMB Realty's One Willoughby Square and Tishman Speyer's The Wheeler will yield more than 1M SF of new class A office over the next three years, and an additional 2M SF of new space is planned across projects in the pipeline.

New and Existing Tenants

Over the past few years, greater Downtown Brooklyn has welcomed a wide range of tech and creative tenants that join longer-term leaseholders such as NYU Tandon, JPMorgan Chase, MakerBot, Etsy, ImpreMedia LLC, UniWorld Group Inc., Con Edison, and National Grid. TAMI and coworking tenants are driving current demand for commercial office space and comprised 24% of all leasing activity between 2015 and 2017.

In 2017, three of the borough's largest leases were located in the core of Downtown Brooklyn: NYC Dept. of Education (64,340 SF renewal at 335 Adams St.), Helen Keller Services (46,240 SF relocation to 180 Livingston St.), and FDNY (41,104 SF new lease at One Pierpoint Pl.).

However, many companies driving growth in Downtown have significantly smaller footprints and the average new lease size is approximately 8,250 SF.

RECENT NEW LEASES AND EXPANSIONS

Media: Slate / Panoply (15 MetroTech Center), Gimlet (41 Flatbush Ave.)

Architecture: BIG (45 Main St.), FXCollaborative (One Willoughby Square)

Fashion Design + Production: Nanette Lepore (Brooklyn Navy Yard), Lafayette 148 (Brooklyn Navy Yard)

EdTech: Flocabulary (55 Washington St.), 2U Inc. (55 Prospect St.)

Advanced Manufacturing: UTC's Digital Accelerator (55 Water St.), Newell Brands (55 Water St.), GoTenna (81 Willoughby St.)

Advertising, Branding, + Design: Big Spaceship (45 Main St.), 72andSunny (55 Water St.), Frog (55 Prospect St.), Designit (77 Sands St.)

Sources: BJH Advisors, LLC; CoStar; Cushman and Wakefield; Downtown Brooklyn Partnership Development Matrix

CONCLUSION

With record employment growth and sustained demand for commercial space, Downtown Brooklyn is poised to become a world-class business center.

The Downtown Brooklyn Partnership (DBP) is working to prime the area for additional business growth through public space activation, vibrant programming, and the development and implementation of a cohesive urban design and vision plan. Working with public agencies, elected officials, civic organizations, and the business and real estate community, DBP aims to take Downtown Brooklyn to the next level – transforming its public realm to support the enormous public and private investment in the area and the unprecedented increase in new residents, businesses, and workers.

Data on jobs and firms is derived from the Quarterly Census of Employment and Wages (QCEW), 2010-2015, prepared by the NYC Department of City Planning. Data derived for the Downtown Brooklyn business district encompasses zip codes 11201 and 11217 and includes private sector jobs only.