



OAKLAND

ECONOMIC DEVELOPMENT
AND URBAN DESIGN STUDIES

OCTOBER 2020

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ECONOMIC DEVELOPMENT
AND URBAN DESIGN STUDIES

SOUTH
SHORE

SOUTH
OAKLAND

AUGUST 2020

SOUTH SIDE FLATS

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Over two-thirds of Oakland's residents – 13,000 – are between 15-24 years old. They live in all neighborhoods of Oakland. 8

There are as many early career aged residents in Oakland as there are in Lawrenceville and the Southside Flats. 8

There are school-aged children in every neighborhood of Oakland. 8

Oakland has comparatively fewer residents age 55-74 than the city overall, but comparatively more residents over the age of 75. 8

Oakland residents are highly-educated. 11

Oakland is a center of learning for over 44,000 undergraduate, graduate, and medical students. 12

Oakland also hosts approximately 2,000 pre-K-12 and lifelong learning students over the course of the year. 12

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Most of Oakland's jobs are in West and North Oakland where the hospitals and universities are located. 34

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Oakland's tree canopy covers only 19% of its land area, primarily on hillsides surrounding the neighborhood. 159

Only 23% of Oakland's tree canopy is in the core and neighborhood areas. 159

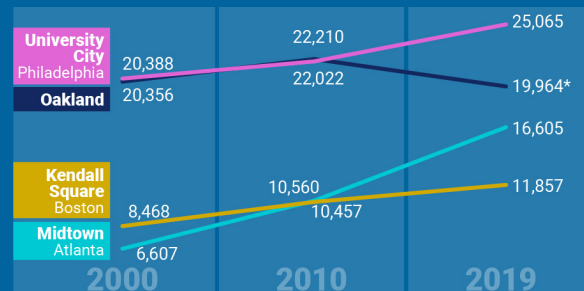
Due to low tree canopy and high impervious surface, Oakland is an urban heat island. 160

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KEY TAKEAWAYS

Population Trends

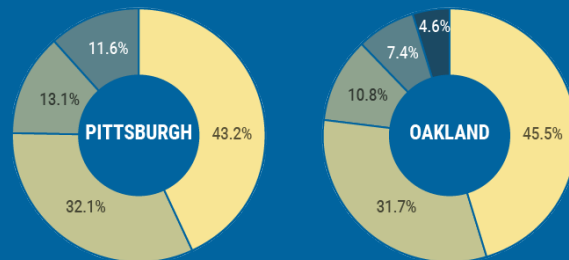
Oakland and National Innovation Neighborhoods, 2000–2019



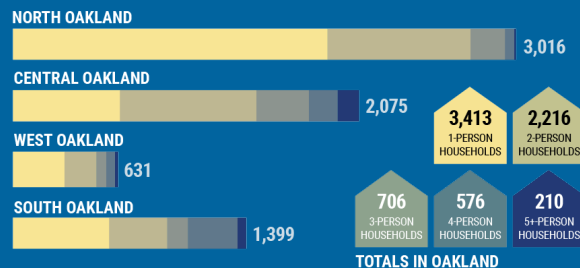
Households by Household Size

Pittsburgh and Oakland, 2018

1-person households 2-person households 3-person households
4-person households 5-person (or more) households



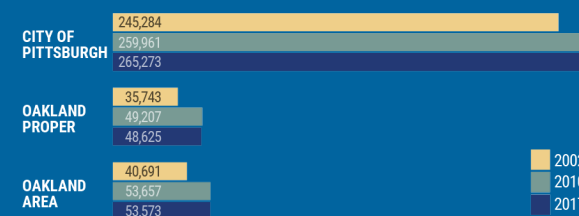
Oakland Areas, 2018



Source: U.S. Census 2000 and 2010; American Community Survey 2018 5-Year Estimates

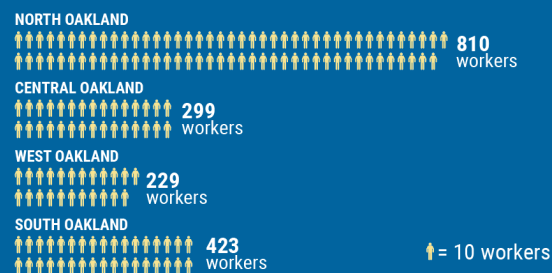
Job Trends

The City, Oakland Proper and the Oakland Area | 2002–2017



Source: LEHD Origin-Destination Employment Statistics

Education and Healthcare Workers in Oakland



Source: LEHD Origin-Destination Employment Statistics

Oakland is 20% of Pittsburgh's overall job base, but 46% of its healthcare and education jobs.

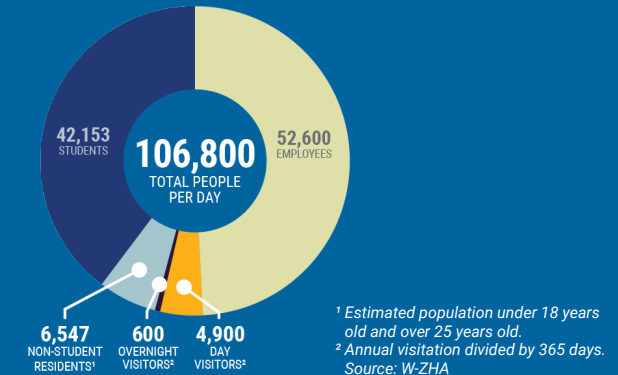
41,495 healthcare/education jobs

66% of all education jobs in Pittsburgh

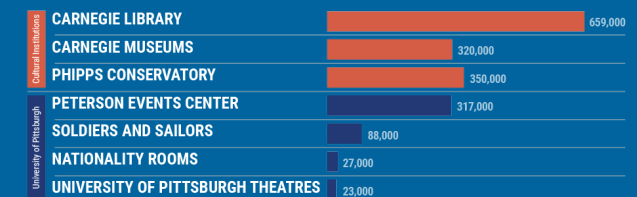
36% of all healthcare jobs in Pittsburgh

Daily Activity (During School Year)

Oakland, 2017



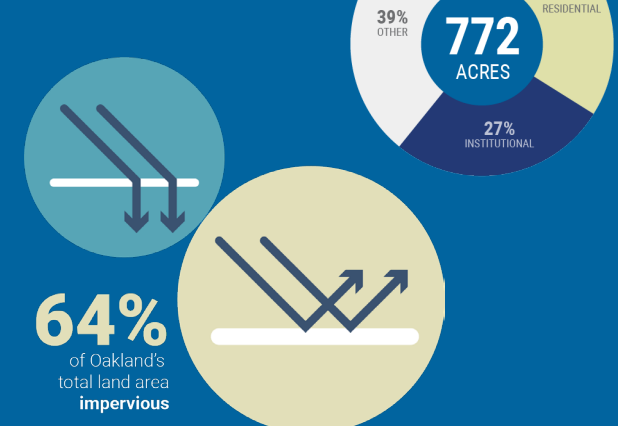
Annual Admissions to Oakland Attractions



Source: Oakland Business Improvement District, Retail Market Study (2015); University of Pittsburgh, Community and Governmental Relations; Visitorship confirmed in 2019 with organization representatives.

Top Land Uses in Oakland

Source: Land Use (2018), City of Pittsburgh



Acronyms and Abbreviations

AADT	Annual Average Daily Traffic
ACS	American Community Survey
ADA	Americans with Disabilities Act
AMI	Area Median Income
BRT	Bus Rapid Transit
CBD	Central Business District
CBRE	Coldwell Banker Richard Ellis
CMU	Carnegie Mellon University
CSO	Combined Sewer Overflow
DCP	Department of City Planning
DOMI	Department of Mobility and Infrastructure
FTE	Full-Time Equivalent
GAP	Great Allegheny Passage
HH	Household
HUD	Department of Housing and Urban Development
IMP	Institutional Master Plan
LED	Light-emitting diode
LEHD	Longitudinal Employer–Household Dynamics
LERTA	Local Economic Revitalization Tax Assistance
MARTA	Metropolitan Atlanta Rapid Transit Authority
MBTA	Massachusetts Bay Transportation Authority
MIT	Massachusetts Institute of Technology
MUH	Montefiore University Hospital
NCAA	National Collegiate Athletic Association
NICU	Neonatal Intensive Care Unit
NIH	National Institutes of Health
OBID	Oakland Business Improvement District
OPDC	Oakland Planning and Development Corporation
PADEP	Pennsylvania Department of Environmental Protection
Pitt	University of Pittsburgh
PNC	PNC Financial Group Services
PTC	Pittsburgh Technology Center
PUH	Presbyterian University Hospital
PWSA	Pittsburgh Water & Sewer Authority
R&D	Research & Development
TBD	To be determined
TDM	Transportation Demand Management
UC	Under-Construction
URA	Urban Redevelopment Authority of Pittsburgh
UPMC	University of Pittsburgh Medical Center
VA	Veteran Affairs
WPIC	Western Psychiatric Institute and Clinic

INTRODUCTION

Purpose

This Existing Conditions Report for the Oakland Plan provides a common set of tools, baselines, and data for discussion during the neighborhood plan process, based on a variety of sources including the Census, market transactions, City and County data sources, site surveys, and analysis. Community members and participants will bring their own experiences, needs, history, and deeper understanding to many topics that data cannot fully address.

The City of Pittsburgh, led by the Department of City Planning (DCP) is working with the Oakland community to create a 10-year plan with a shared vision for Oakland's future and the projects and programs necessary to make that vision a reality.

Once adopted by the Planning Commission, the Oakland Plan will become City policy and guide public and private investments in the area. New land use regulations, transportation and infrastructure improvements, and public programs may also be recommended by the plan. The plan area generally includes the areas of North Oakland, Central Oakland, South Oakland, and West Oakland.



PHOTO COURTESY OF THE UNIVERSITY OF PITTSBURGH

The City of Pittsburgh conducts planning efforts based on the Neighborhood Plan Guide, which establishes standards for plans that will be adopted by the City Planning Commission. The Oakland Plan will establish vision statements that provide a shared description of what the neighborhood will be in 10 years if the plan is successful and determine goals that the plan will achieve by implementing programs, policies, and projects.

More information about this guide can be found at: <https://pittsburghpa.gov/dcp/neighborhood-planning-guide>.

The Oakland Plan will address a core set of topics, including: Community, Development, Mobility, and Infrastructure. The Community topic focuses on meeting the needs of residents, employees, students, and stakeholders. The Development section focuses on maximizing the benefits of new development for the community. The Mobility section focuses on making it easier, safer, and healthier for people to get around. The Infrastructure section focuses on nourishing neighborhoods through new energy, stormwater, and open space systems.

The Department of Mobility and Infrastructure (DOMI) will be leading additional planning work for the Mobility Chapter to address transportation, in its various forms, and parking. As part of that effort, DOMI and its consultants will be collecting and analyzing new data on commute and travel patterns, parking, and transit use in the Oakland area to support a well-connected, safe, accessible, and multi-modal Oakland. Independent of this

planning effort, DOMI and DCP will be conducting long-term, citywide planning efforts, including the 2070 Mobility Plan and Citywide Comprehensive Plan, that may offer additional context for the Oakland Plan and spur new ideas and evaluation during the community planning process.

The open data tools and analysis provided through the Western Pennsylvania Regional Data Center were an essential data source for this report and ongoing tool for community evaluation and analysis. Additional resources provided by the data center can be found: <http://www.wprdc.org/>.

Previous Planning Studies

This Existing Conditions Report builds upon the findings of recommendations of several community planning efforts and research, including, among others:

- The Oakland Plan 2025 (Oakland Planning and Development Corporation, 2010)
- Innovation Oakland (2010)
- Oakland Retail Market Study (Oakland Business Improvement District, 2015)
- Green First Plan (Pittsburgh Water & Sewer Authority, 2016)
- Capturing the next economy: Pittsburgh's rise as a global innovation City (Brookings Institute Report, 2017)

In addition to several citywide planning and community development initiatives, including, among others:

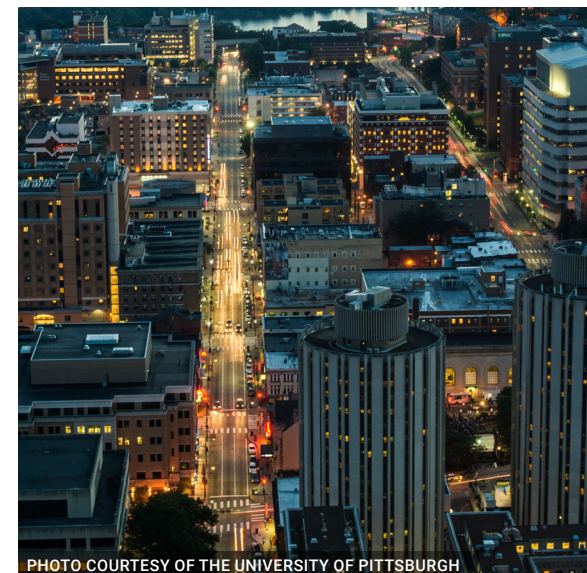


PHOTO COURTESY OF THE UNIVERSITY OF PITTSBURGH

- The Affordable Housing Task Force Report (2016)
- City Steps Master Plan (2017)
- Open Space PGH (2013)
- Preserve PGH (2012)

Many community members, stakeholders, and leaders who participated in the neighborhood planning process and offered their expertise as part of interviews to inform this report.

CHAPTER TWO:

OAKLAND THE WORKPLACE

Key Takeways

- According to the Brookings Institution, Oakland produces more than a third of all of Pennsylvania's university research output. And while nearly 32% of Oakland's workers are in the education sector, nearly 45% are in the health care and social assistance sector. Oakland plus the adjacent VA Medical Center and Carnegie Mellon University account for more than 20% of Pittsburgh's jobs. These nearly 53,000 jobs are comparable to Kendall Square in Cambridge MA, but about 30,000 fewer than the job count in Philadelphia's University City.
- Oakland's total employment grew a robust 38% between 2000 and 2010 – representing most of Pittsburgh's job growth for that period. It has leveled off since then, however, with continued educational services, accommodations, and food services growth countered by relocation of some health care jobs to Lawrenceville. Professional, scientific, and technical services jobs, a mainstay of most innovation neighborhoods, have not grown markedly in Oakland since 2002. These have instead grown in neighborhoods like Lawrenceville, the Strip, and South Side Flats.
- Oakland's workforce is 60% female. It is more racially diverse than in other Pittsburgh neighborhoods with tech industries, but less diverse than the city's overall workforce. It is relatively older, with fewer employees in the 25-34 age range than Lawrenceville and South Side Flats.
- About 28% of Oakland's workforce live in Pittsburgh, a decline from 30% in 2010. About 64% of the workforce lives within ten miles. The share of Oakland's workforce commuting over 50 miles doubled to 7.5% between 2010 and 2017, led by its lowest-paid workers.
- Due to site constraints, development of new office and private research space has remained well short of demand.

Note:

North Oakland's boundaries do not include a significant portion of Carnegie Mellon University's campus. Therefore, the number of jobs in North Oakland excludes most of Carnegie Mellon's jobs.

Job statistics that refer to Oakland's specific boundaries as defined by the City will be referred to as "Oakland Proper". When job statistics include an additional tract near Carnegie Mellon, it will be referred to as "Oakland Area".

The U.S. Census provides data on where people work and where people live through the LEHD Origin-Destination Employment Statistics. This data is available by census tract from 2002 to 2017. The data tracks jobs as the primary unit instead of people. The number of "primary jobs" should equal the number of workers in a location. "All jobs" include non-primary jobs.

The LEHD data provides data over time and jobs by industry. It also includes information on the sex, race, ethnicity and education of the job holder. Unless otherwise noted, this is the source of data for analysis in the following chapter.

There are an estimated 48,625 jobs in Oakland proper.

If the Census Block Group with most of Carnegie Mellon's campus is included, there are 53,573 jobs in the Oakland area. There are almost 2.5 times as many workers as residents in Oakland proper. Expanding Oakland further to include more of Squirrel Hill North and the VA Hospital increases the worker count to just over 57,700. The Oakland area is home to 6 of the 50 largest employers in Pittsburgh.

Most of Oakland's jobs are in West and North Oakland where the hospitals and universities are located.

Together, the institutions employ approximately 30,000 people, or 56% of all jobs in Oakland.

While the majority of these jobs are in educational services and health care and social assistance, as coded by LEHD, other support services may be coded differently.

The educational institutions in Oakland employed approximately 19,500 people in 2017.

This includes approximately 4,650 employees at the University of Pittsburgh School of Medicine and represents 36% of the total jobs in Oakland. While the total employment remained essentially the same in the Oakland area from 2010 to 2017, the educational institutions increased employment. Employment at Carnegie Mellon grew from 3,782 to 6,077 over the last two

decades, or 60.7%. Employment at Carlow and Pitt also grew by over 30% in the same time period.

The hospitals are also a significant employment base. According to data included in OBID's Retail Market Study (2015), the 2014 employment was as follows:

- UPMC Presbyterian (which includes UPMC Montefiore) – 6,150 employees
- UPMC Magee-Womens Hospital – 2,478 employees
- Western Psychiatric Institute and Clinic – 2,270 employees
- VA Pittsburgh Hospital – 3,792 employees
- The larger UPMC system employees 53,000 locally and is the largest non-government employer in Pennsylvania.

The Pittsburgh Technology Center also hosts a number of major employers in a district along the riverfront. The Pittsburgh Technology Center has more than 1,000 workers, including major

employers at Steel Dynamics, National Cyber-Forensics and Training Alliance, Braskem, the University of Pittsburgh Center for Biotechnology and Bioengineering, and Century Link.

The School District of Pittsburgh is among the largest employers in the city; while it is headquartered in Oakland, its 39,000 employees work throughout the city.

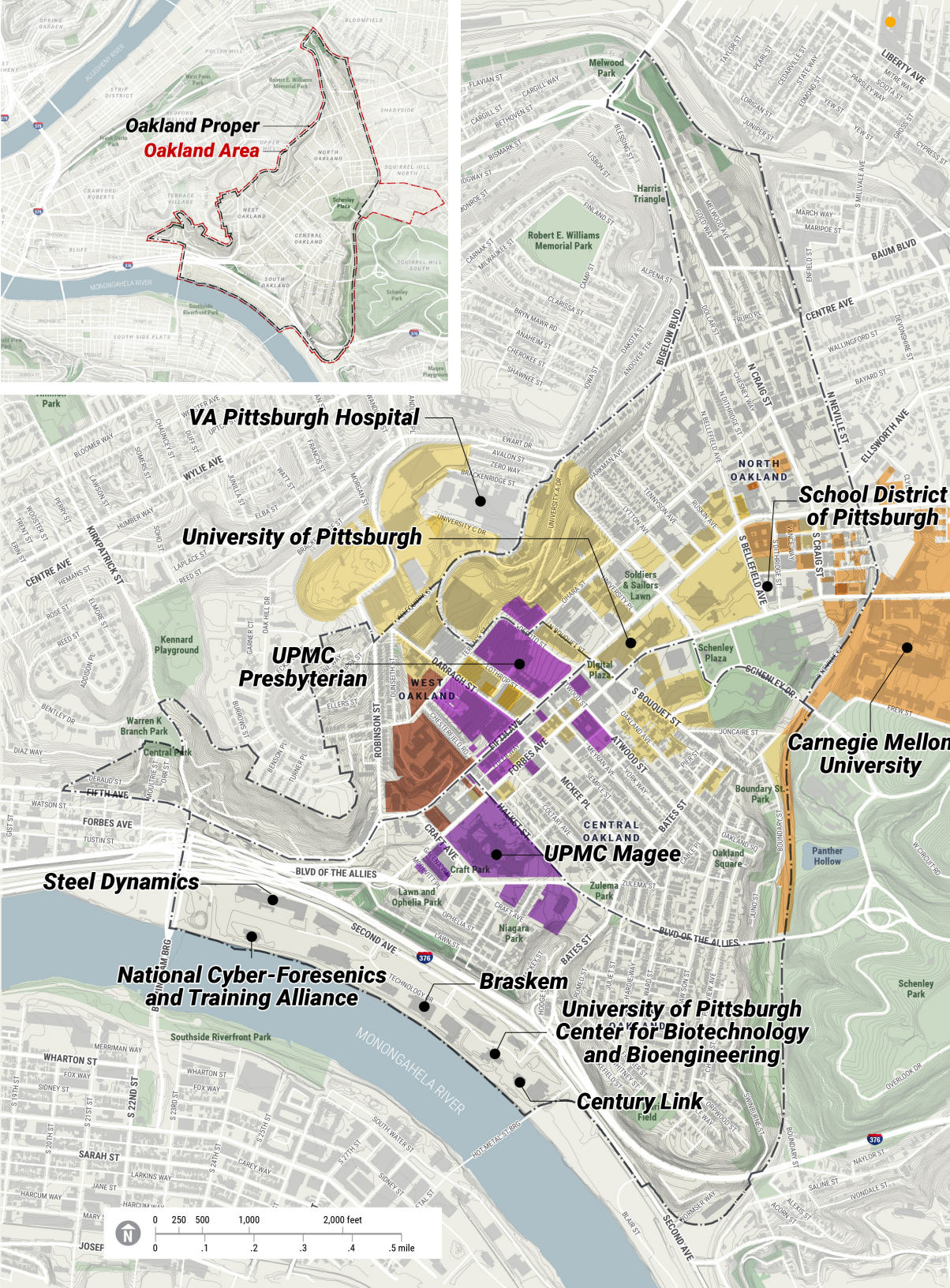
Overall Employment Number

- In 2012 SnapPGH indicated that there were approximately 72,000 jobs in Oakland. The Ecolnnovation District Plan in 2017 indicated 79,000 jobs in Oakland.
- Because the LEHD data is a U.S. Census product, provides data over time by industry, and tracks the characteristics of job holders, this data has been used in this analysis. It provides a consistent baseline for comparison, even as it may undercount compared to other estimates.

Full-Time and Part-Time Job Trends at Educational Institutions | Oakland Area | 2010 and 2017

	2000	2010	2017	2000-2010		2010-2017		2000-2017	
				#	%	#	%	#	%
University of Pittsburgh	9,615	12,667	12,942	3,052	31.7%	275	2.2%	3,327	34.6%
Carnegie Mellon University	3,782	5,089	6,077	1,307	34.6%	988	19.4%	2,295	60.7%
Carlow University	378	547	494	169	44.7%	(53)	-9.7%	116	30.7%
TOTAL	13,775	18,303	19,513	4,528	32.9%	1,210	6.6%	5,738	41.7%

Source: University of Pittsburgh, Office of Institutional Research, "2011 and 2018 Fact Book"; Carnegie Mellon University, "University Factbook 2010-2011 and 2017-2018"; Carlow University institutional research department.



Major Employers

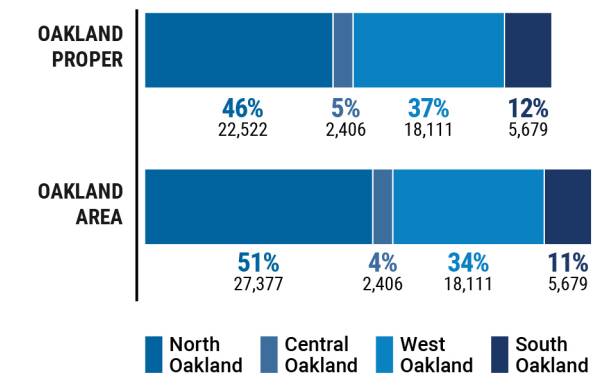
Major Employers

INSTITUTIONAL OWNERSHIP

- University of Pittsburgh
- Carnegie Mellon University
- Carlow University
- UPMC Magee
- UPMC Oakland

Sources: Major Employers (2019), PA Department of Labor and Industry

Jobs in Oakland by Neighborhood



70% of the Oakland area's jobs are in health care or educational services. The Oakland area contains 66% of all education jobs 40% of health care and social assistance jobs in Pittsburgh.

The industry with the greatest number of jobs in the Oakland Area is health care and social assistance with 21,650 jobs. Educational services provides 19,849 jobs in the Area. Together this industries account for 70% of the jobs in the Oakland Area. As a point of reference, these two industries account for 78% of University City's jobs. There was rapid growth in jobs in these sectors from 2002-2010, but since then growth has slowed and, in the case of healthcare, the jobs in Oakland declined 2010-2017.

Oakland has also has over 3,000 jobs in management of companies and enterprises, a category that includes business headquarters and can be an important part of innovation.

The fastest growing sector in Oakland is information services which is comprised of software, digital media, publishing, and media. This sector grew by 55% from 2010 to 2017.

Oakland is 20% of Pittsburgh's overall job base, but 46% of its healthcare and education jobs.

41,495 healthcare/
education jobs

66% of all education jobs
in Pittsburgh

36% of all healthcare
jobs in Pittsburgh

People Who Work in Oakland Area and Oakland Proper by Industry | 2017

Industry	Oakland Area			Oakland Proper		
	Employees	% of Total	Oakland's % of City Jobs	Employees	% of Total	Oakland's % of City Jobs
Health Care and Social Assistance	21,653	41.1%	36.1%	21,649	44.5%	36.1%
Educational Services	19,842	29.1%	65.5%	15,347	31.6%	50.6%
Management of Companies and Enterprises	3,174	6.0%	26.0%	3,174	6.5%	26.0%
Accommodation and Food Services	2,785	4.7%	14.2%	2,490	5.1%	12.7%
Public Administration	1,683	10.9%	16.0%	1,683	3.5%	16.0%
Professional, Scientific, and Technical Services	953	1.6%	3.7%	838	1.7%	3.3%
Information	580	1.1%	8.8%	578	1.2%	8.8%
Arts, Entertainment, and Recreation	566	1.1%	8.4%	566	1.2%	8.4%
Other Services	535	1.0%	7.0%	535	1.1%	7.0%
Manufacturing	463	0.9%	7.3%	463	1.0%	7.3%
Retail Trade	405	0.8%	4.0%	405	0.8%	4.0%
Real Estate and Rental and Leasing	268	0.5%	7.3%	268	0.6%	7.3%
Administration & Support, Waste Management and Remediation	226	0.4%	2.4%	190	0.4%	2.0%
Wholesale Trade	221	0.4%	4.0%	221	0.5%	4.0%
Finance and Insurance	169	0.3%	0.5%	168	0.3%	0.5%
Construction	27	0.1%	0.4%	27	0.1%	0.4%
Utilities	14	0.0%	0.6%	14	0.0%	0.6%
Transportation and Warehousing	9	0.0%	0.2%	9	0.0%	0.2%
TOTAL	53,573	100.0%	20.2%	48,625	100.0%	18.4%

Source: LEHD Origin-Destination Employment Statistics as modified by W-ZHA, LLC

Jobs in Oakland by Industry | Oakland Proper | 2002, 2010, 2017

Industry	2002		2010		2017		2002 - 2010		Change 2010-2017		2002-2017	
	Jobs	% of Total	Jobs	% of Total	Jobs	% of Total	Jobs	% Change	Jobs	% Change	Jobs	% Change
These industries grew form 2002–2017.												
Health Care and Social Assistance	13,326	37.3%	22,783	46.3%	21,649	44.5%	9,457	71.0%	(1,134)	-5.0%	8,323	62.5%
Management of Companies and Enterprises	2,129	6.0%	2,995	6.1%	3,174	6.5%	866	40.7%	179	6.0%	1,045	49.1%
Educational Services	10,433	29.2%	14,870	30.2%	15,347	31.6%	4,437	42.5%	477	3.2%	4,914	47.1%
Accommodation and Food Services	1,766	4.9%	2,080	4.2%	2,490	5.1%	314	17.8%	410	19.7%	724	41.0%
Professional, Scientific, and Technical Services	861	2.4%	954	1.9%	838	1.7%	93	10.8%	(116)	-12.2%	(23)	-2.7%
Public Administration	1,760	4.9%	1,748	3.6%	1,683	3.5%	(12)	-0.7%	(65)	-3.7%	(77)	-4.4%
Information	615	1.7%	372	0.8%	578	1.2%	(243)	-39.5%	206	55.4%	(37)	-6.0%
Real Estate and Rental and Leasing	291	0.8%	224	0.5%	268	0.6%	(67)	-23.0%	44	19.6%	(23)	-7.9%
Manufacturing	648	1.8%	565	1.1%	463	1.0%	(83)	-12.8%	(102)	-18.1%	(185)	-28.5%
Other Services (excluding Public Administration)	829	2.3%	519	1.1%	535	1.1%	(310)	-37.4%	16	3.1%	(294)	-35.5%
Utilities	23	0.1%	16	0.0%	14	0.0%	(7)	-30.4%	(2)	-12.5%	(9)	-39.1%
Finance and Insurance	281	0.8%	352	0.7%	168	0.3%	71	25.3%	(184)	-52.3%	(113)	-40.2%
Retail Trade	714	2.0%	392	0.8%	405	0.8%	(322)	-45.1%	13	3.3%	(309)	-43.3%
Transportation and Warehousing	16	0.0%	13	0.0%	9	0.0%	(3)	-18.8%	(4)	-30.8%	(7)	-43.8%
Arts, Entertainment, and Recreation	1,035	2.9%	552	1.1%	566	1.2%	(483)	-46.7%	14	2.5%	(469)	-45.3%
Wholesale Trade	460	1.3%	215	0.4%	221	0.5%	(245)	-53.3%	6	2.8%	(239)	-52.0%
Administration & Support, Waste Management and Remediation	433	1.2%	496	1.0%	190	0.4%	63	14.5%	(306)	-61.7%	(243)	-56.1%
Construction	122	0.3%	57	0.1%	27	0.1%	(65)	-53.3%	(30)	-52.6%	(95)	-77.9%
TOTAL	35,743	100.0%	49,207	100.0%	48,625	100.0%	13,464	37.7%	(582)	-1.2%	12,882	36.0%

Health Care and Social Assistance and Educational Services dwarf others.

No net growth overall.

Information grew the most 2010–2017.

Job losses 2002-2010 outweigh recent stability.

Source: LEHD Origin-Destination Employment Statistics as modified by W-ZHA, LLC

Almost all the city's job growth between 2002 and 2010 occurred in Oakland proper.

Between 2002 and 2010, almost 13,500 jobs were added in Oakland proper. Jobs grew by 38% in this eight-year period.

Since 2010, the number of jobs in Oakland proper has declined slightly.

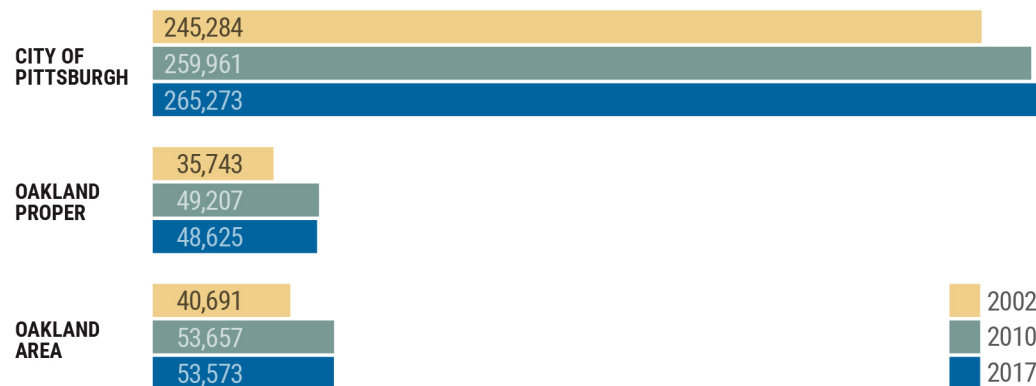
Across the Oakland area, jobs have remained essentially the same. According to the US Census LEHD Origin Destination Employment Statistics, Oakland lost over 1,000 health care and social service jobs between 2010 and 2017. The job loss is likely attributable to UPMC expanding Children's Hospital in Lawrenceville.

Between 2010 and 2017, meaningful job growth occurred in the education services, accommodations and food service, and management industries in Oakland. Professional, scientific, and technical services, typically a mainstay of innovation neighborhoods, has not grown markedly since 2002.

Unlike Oakland, jobs in Lawrenceville and South Side Flats grew between 2010 and 2017. The CBD lost over 2,780 jobs between 2010 and 2017.

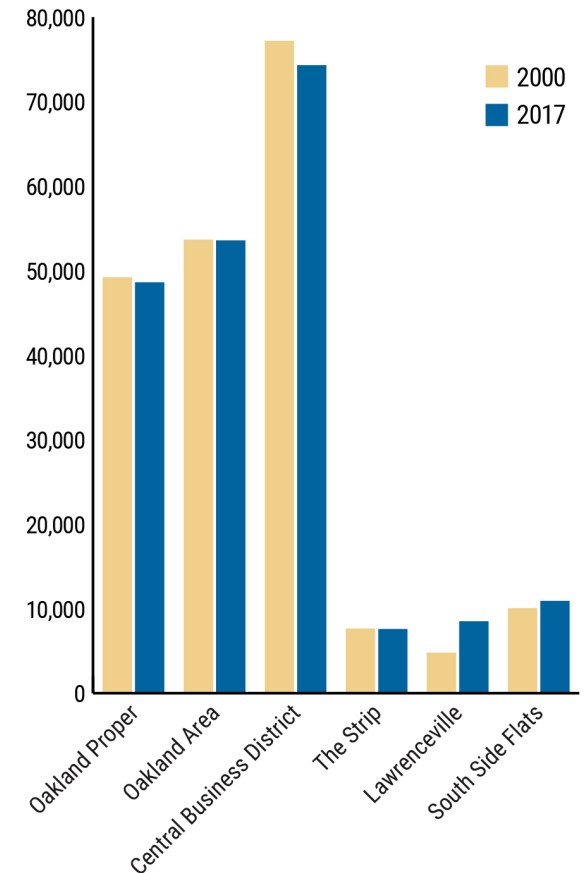
The Strip has the most diversified employment among the Pittsburgh innovation neighborhoods.

Job Trends | The City, Oakland Proper and the Oakland Area | 2002 - 2017



Source: LEHD Origin-Destination Employment Statistics

Number of Jobs | Oakland Proper & Area and Pittsburgh Innovation Neighborhoods | 2010 and 2017



Source: LEHD Origin-Destination Employment Statistics as modified; W-ZHA. These jobs occur within the geography of the Census tracts indicated; jobs conducted in a different location, even for a business located within the given area, are not counted because it is not the place of work.

Jobs by Industry | Oakland Area and Pittsburgh Innovation Neighborhoods | 2017

	CBD	The Strip	Lawrenceville	South Side Flats	Oakland Area
Retail Trade	760	526	439	1,062	405
Transportation, Warehousing, Utilities	1,260	36	142	328	23
Information	2,252	181	25	418	578
Financial Activities	28,753	1,512	137	476	436
Professional & Business Services	24,010	1,865	859	2,244	4,202
Education Services	1,270	271	171	469	15,347
Health Care & Social Assistance	2,342	231	3,458	1,836	21,649
Leisure & Hospitality	5,456	1,034	760	2,282	3,056
Other Services	2,341	271	431	314	535
Public Admin	4,353	0	5	0	1,683
Other Industries	1,518	1,670	2,072	1,490	711

Source: LEHD Origin-Destination Employment Statistics as modified; W-ZHA

While Oakland's job density is high compared to other Pittsburgh innovation neighborhoods, it is low compared to the national innovation neighborhoods analyzed.

Oakland proper has 18.4% of the city's jobs, more than any other district than the CBD.

With its tall buildings and compact form, Pittsburgh's CBD has a very high concentration of jobs. Compared to other Pittsburgh innovation neighborhoods – the Strip, Lawrenceville, and South Side Flats – Oakland has a higher concentration of employees and more jobs overall.

The number of jobs in the Oakland area is comparable to Kendall Square in Cambridge.

University City in Philadelphia has over 30,000 more jobs than the Oakland area.

Number of Employees and Employees per Square Mile | Oakland Proper & Area and Pittsburgh Innovation Neighborhoods | 2017

Neighborhood	Employees	Employees per Square Mile
Central Business District	74,315	136,741
The Strip	7,597	12,351
Lawrenceville	8,499	6,700
South Side Flats	10,919	11,458
Oakland Proper	48,625	
Oakland Area	53,573	34,505

Source: LEHD Origin-Destination Employment Statistics as modified; W-ZHA

Number of Employees and Employees per Square Mile | National Innovation Neighborhoods

	Employees	Employees per Square Mile
University City–Philadelphia ¹	85,000	85,000
Kendall Square–Cambridge ²	50,000	72,464
Midtown–Atlanta ¹	65,000	72,222
Research Triangle Park ¹ –Raleigh-Durham	39,000	
Oakland Area ²	53,573	32,855

¹ 2019 data | ² 2017 data.

Source: University City, 2019 Annual Report; Midtown Atlanta, "Only In Midtown"; Discover Durham, "Research Triangle Park (April 2019)"; The Boston Globe 12/14/2017, "Booming Kendall Square will get a long-sought supermarket as MIT projects advance"; LEHD data.

POINT OF DISCUSSION

Philadelphia's University City has 30,000 more jobs in an area similar to Oakland. How can Oakland pack more employees into its commercial areas in ways that improve the livability of the neighborhood and without bringing more cars?

The Oakland workforce is predominantly female.

60% of the workers in the Oakland area are female. In West Oakland, where the healthcare industry predominates, almost 70% of workers are female! As a point of reference, women comprised 49% of the city's workforce in 2017.

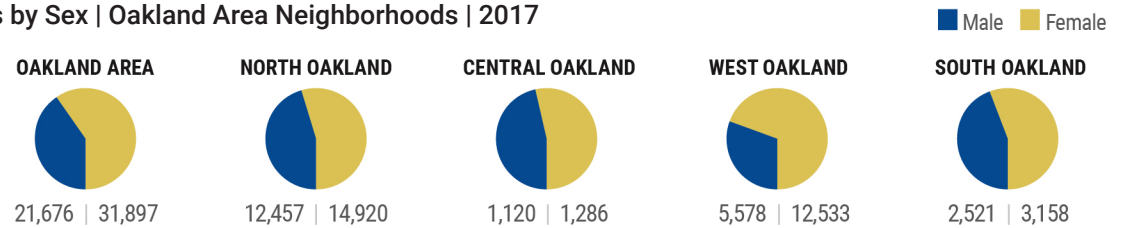
Oakland's workforce is the most diverse in terms of race of the neighborhoods analyzed.

There are more Asian workers in Oakland than there are in any of the Pittsburgh innovation neighborhoods. Over 6% of workers in Oakland are Asian. Oakland also has a higher percentage of Black or African-American employees than the CBD, but less than Lawrenceville and Southside Flats.

Oakland's workforce is less Black or African-American than the city's workforce overall, and less than the city's population.

11.4% of Oakland's residents are Black or African-American, and 11.2% of workers in Oakland are Black or African-American. The city's overall population is 23.6% Black, while its workforce is 12.8% Black.

Jobs by Sex | Oakland Area Neighborhoods | 2017



Source: LEHD Origin-Destination Employment Statistics; W-ZHA

Oakland Employees by Race | Oakland Area | 2010–2017

	2010		2017		2010-2017	
	#	%	#	%	#	%
White Alone	44,270	83%	43,470	81%	(800)	-1.8%
Black or African American Alone	5,897	11%	5,987	11%	90	1.5%
Asian Alone	2,887	5%	3,357	6%	470	16.3%
Other Race Alone	124	0%	88	0%	(36)	-29.1%
Two or More Race Groups	479	1%	672	1%	193	40.2%
TOTAL	53,657	100%	53,573	100%	(84)	-0.2%

Source: LEHD Origin-Destination Employment Statistics

Jobs by Worker Race | Oakland and Pittsburgh Innovation Neighborhoods | 2017

Worker Race	CBD		The Strip		Lawrenceville		South Side Flats		Oakland		City	
White Alone	63,074	84.9%	6,506	85.6%	7,125	83.8%	9,138	83.7%	43,470	89.4%	203,265	66.6%
Black or African American Alone	7,733	10.4%	734	9.7%	1,076	12.7%	1,303	11.9%	5,987	12.3%	72,073	23.6%
Asian Alone	2,586	3.5%	243	3.2%	181	2.1%	325	3.0%	3,357	6.9%	17,153	5.6%
Other Race Alone	88	0.1%	17	0.2%	22	0.3%	13	0.1%	88	0.2%	2,077	0.7%
Two or More Race Groups	834	1.1%	97	1.3%	95	1.1%	140	1.3%	672	1.4%	10,444	3.4%
TOTAL	74,315		7,597		8,499		10,919		53,573		305,012	

Source: LEHD Origin-Destination Employment Statistics; W-ZHA

Over one-quarter of Oakland's employees are over the age of 55. As compared to other Pittsburgh innovation neighborhoods, Oakland has the greatest share of its employees 55+ years old or older.

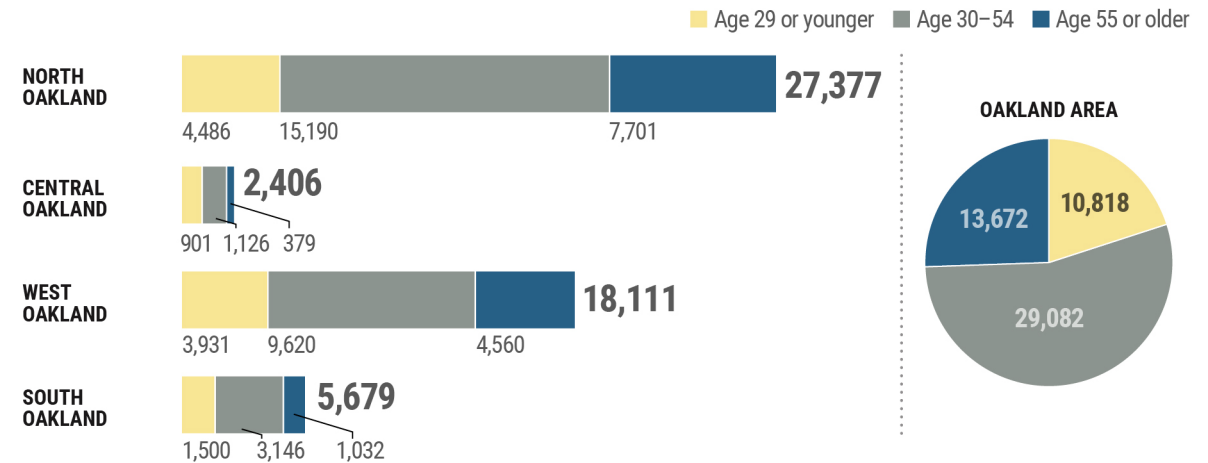
Oakland is comparable to the CBD in terms of the share of young workers – 19% to Oakland's 20%. Lawrenceville and South Side Flats have a much higher percentage of their workforce under the age of 29.

Central Oakland has the highest proportion of its workers 29 years old or less. Central Oakland has a concentration of its jobs in accommodation and food service and healthcare.

South Oakland also has a relatively high proportion of its workforce age 29 or younger. Half of South Oakland's jobs are in healthcare. Approximately 13% of South Oakland's jobs are in manufacturing and professional services. These industries may require young talented workers.

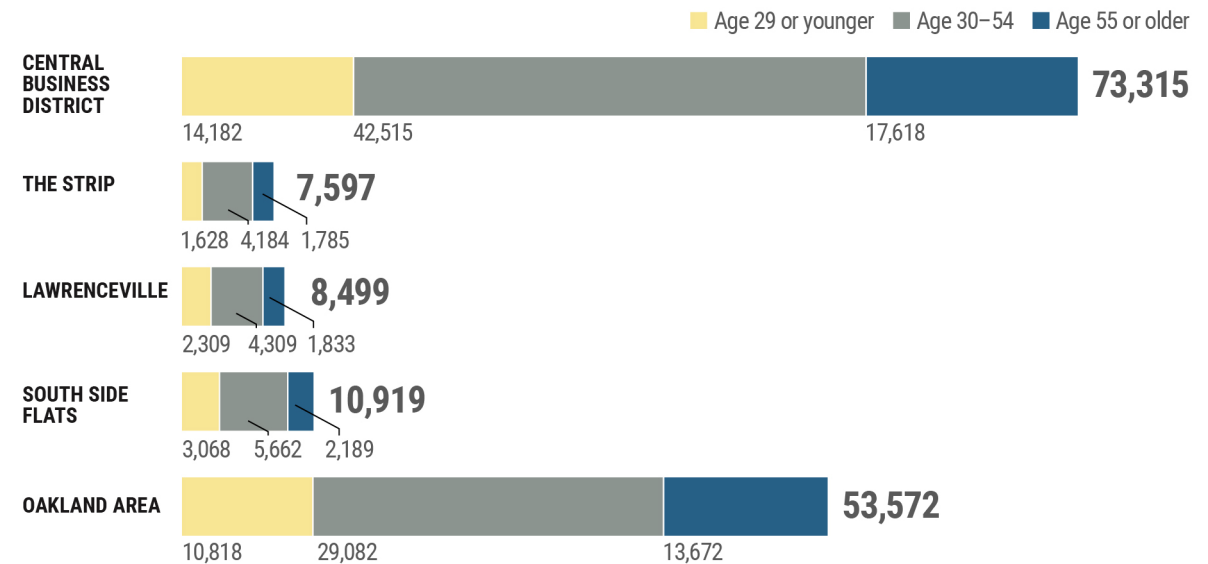
With education the dominant industry in North Oakland, it has the highest concentration of workers over 55 years old. North Oakland captures 56% of the Oakland area's workforce over 55.

Employees by Age | Oakland Area and Neighborhoods



Source: LEHD Origin-Destination Employment Statistics; W-ZHA

Distribution of Employees by Age | Oakland and Pittsburgh Innovation Neighborhoods | 2017



Source: LEHD Origin-Destination Employment Statistics; W-ZHA

Almost two-thirds of employees who work in Oakland earn over \$40,000 a year.

Most of the Oakland area's workers who earn over \$40,000 per year work in the North Oakland area. Approximately two-thirds of the employees in West and North Oakland earn more than \$40,000 per year.

One-third of Central Oakland's 2,400 employees earn less than \$15,000 per year.

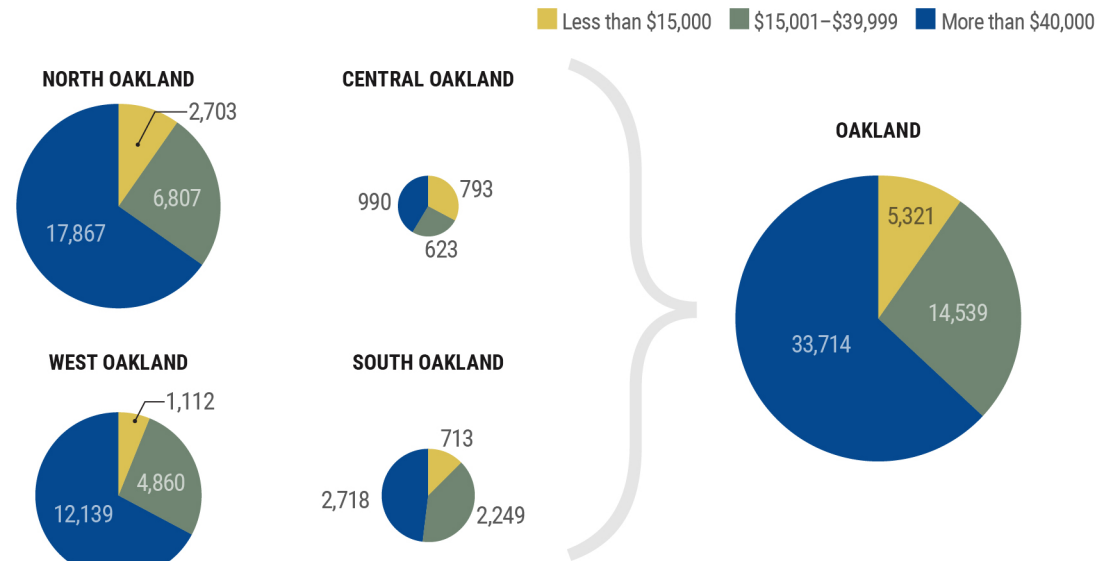
The Pittsburgh Metropolitan Area's 2017 Area Median Income (AMI) was \$58,521. The lowest earning bracket includes those workers who earn up to \$15,000 per year or 26% of AMI. 10% of Oakland's workers fall into this bracket.

The middle earning bracket includes those workers who earn between \$15,000 and \$40,000 per year. Over a quarter of Oakland's workers are in this bracket. The high-end of this bracket is 68% of AMI.

Oakland's employees most closely resemble the Central Business District in terms of earnings distribution. Both the CBD and Oakland have a high percentage of employees with earnings above \$40,000 per year.

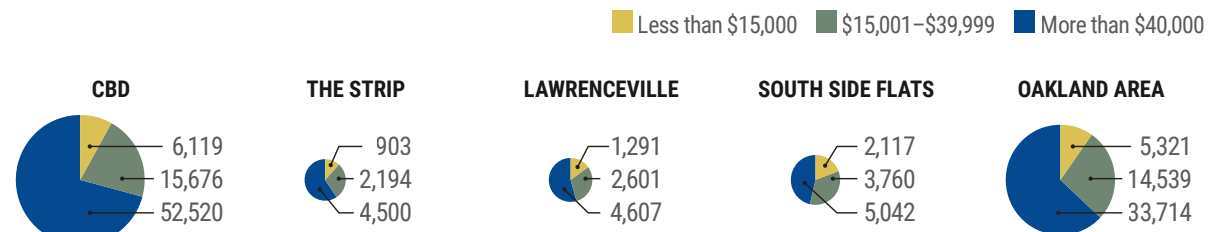
Note that earnings by worker in an area comes from the Census LEHD program, and is provided only for these income brackets. The Census provides greater detail about the income of households that live in Oakland, as covered previously, but less about the incomes of employees who work in Oakland.

Distribution of Employees by Earnings | Oakland Neighborhoods | 2017



Source: LEHD Origin-Destination Employment Statistics; W-ZHA

Distribution of Employees by Earnings | Oakland Area and Pittsburgh Innovation Neighborhoods | 2017



Source: LEHD Origin-Destination Employment Statistics; W-ZHA

Oakland workers have a high level of educational attainment.

43% of Oakland area workers that reported on their education has a Bachelor's degree or higher. Oakland area workers are very similar to CBD workers in terms of educational attainment. Oakland area workers represent 23% of all city workers with a Bachelor's degree or higher.

As would be expected with its concentration of employment in higher education, approximately half of all North Oakland employees reporting educational attainment had a Bachelor's degree or higher. A high concentration of employees with Bachelor's degrees and above is an asset and can also pose challenges. Employees are needed to support the retail, service, and entertainment industries as well as large employers. Many of these jobs do not require a Bachelor's degree. To maintain a robust and balanced economy, a variety of industries and workers need to be present in Oakland.

As compared to other national innovation neighborhoods, Oakland's employees have very high educational attainment. Increasing the number of jobs in Oakland accessible to residents with lower educational attainment will involve trade-offs. For example, having more corporate offices or distribution facilities would create a wider range of job opportunities. However, to accommodate that in Oakland would mean substantially more height and larger footprints to accommodate a broader range of employment uses. Additionally both uses would create additional burdens on Oakland's transportation infrastructure.

Educational Attainment of Those Workers Reporting on Educational Attainment | Oakland Neighborhoods | 2017

Education Attainment	North Oakland		Central Oakland		West Oakland		South Oakland	
< High School	1,460	6.4%	138	9.2%	915	6.5%	346	8.3%
High School, No College	4,138	18.1%	365	24.3%	3,113	22.0%	1,083	25.9%
Some College or Associates	5,909	25.8%	454	30.2%	4,848	34.2%	1,426	34.1%
Bachelor's-Plus	11,384	49.7%	548	36.4%	5,304	37.4%	1,323	31.7%
Not Reported	4,486	16.4%	901	37.4%	3,931	21.7%	1,500	26.4%
Total Workers	27,377	100.0%	2,406	100.0%	18,111	100.0%	5,679	100.0%

Source: LEHD Origin-Destination Employment Statistics; W-ZHA

Educational Attainment of Those Workers Reporting on Educational Attainment | Oakland Area and Pittsburgh Innovation Neighborhoods | 2017

Education Attainment	CBD		The Strip		Lawrenceville		South Side Flats		Oakland Area	
< High School	3,961	6.6%	496	8.3%	614	10.0%	235	9.5%	2,859	6.7%
High School, No College	13,069	21.7%	1,628	27.3%	1,790	29.1%	755	30.5%	8,699	20.3%
Some College or Associates	17,788	29.6%	1,772	29.7%	2,094	34.1%	707	28.5%	12,637	29.6%
Bachelor's-Plus	25,315	42.1%	2,073	34.7%	1,644	26.8%	781	31.5%	18,559	43.4%
Not Reported	14,182	19.1%	1,628	21.4%	2,357	27.7%	730	6.7%	10,818	22.2%
Total Workers	60,133	100.0%	5,969	100.0%	6,142	100.0%	2,478	100.0%	42,755	100.0%

Source: LEHD Origin-Destination Employment Statistics; W-ZHA

Percent of Employees with a Bachelor's Degree or Higher in National Innovation Neighborhoods

Oakland Area	43.4%
Raleigh-Durham (Research Triangle Park)	42.6%
Cambridge (Kendall Square)	40.4%
Boston (Innovation Neighborhood)	37.3%
Philadelphia (University City)	35.9%
Seattle (South Lake Union)	34.3%
Atlanta (Midtown)	34.1%
San Francisco (Mission Bay)	33.8%
Austin (Downtown)	28.8%

Source: For other districts University City Annual Report 2019; Oakland data ACS 2018 5-Year Estimates

POINT OF DISCUSSION

How can we shape the mix of employers in Oakland so that there are more jobs for those with lower educational attainment? How can we grow Oakland's workforce in ways that overcome longstanding wage and opportunity disparities? What trade-offs are acceptable?

Approximately 28% of workers in Oakland live in the City of Pittsburgh.

The number of workers living in the City of Pittsburgh has fell in recent years. In 2010, approximately 30% of employees that work in Oakland lived in the city.

Top 10 Zip Codes for Where Oakland Workers Live | Primary Workers | 2017

Zip Code	Neighborhood/Place	% of Workers
15217	Squirrel Hill South	4.6%
15206	Larimer	3.9%
15221	Wilkinsburg Borough	3.0%
15237	McKnight (Ross Township)	2.7%
15235	Penn Hills	2.5%
15213	North Oakland	2.4%
15218	Swissvale Borough	1.9%
15232	Shadyside	1.9%
15227	Brentwood	1.8%
15236	West Mifflin Borough	1.7%

Source: LEHD Origin-Destination Employment Statistics

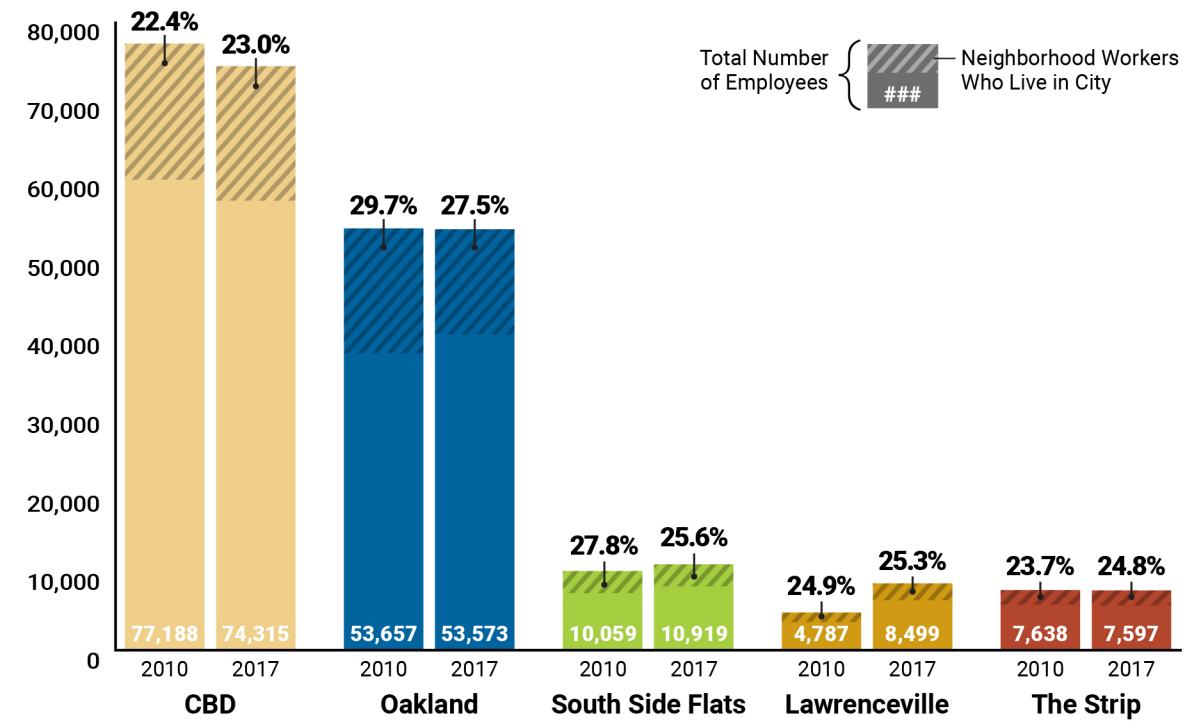
Of the Oakland employees that live in the city, more live in the adjacent neighborhoods to the east of Oakland. Squirrel Hill has the zip code where the highest percentage of Oakland employees live – nearly 5%.

A higher percentage of Oakland's workers live in the city as compared to the Pittsburgh innovation neighborhoods. The Central Business District, which has almost 21,000 more jobs than

Oakland, has 17,000 workers who live in the city, or 23%, compared to 13,000 in Oakland, or 28%.

Lawrenceville, which has dramatic growth in employment from 2010 to 2017, nearly doubling the number of jobs and growing employees by over 3,700, added an additional 952 employees who live in the city over the same time period. Lawrenceville is known for its high quality of life.

Workers Who Live in the City | Oakland and Pittsburgh Innovation Neighborhoods | 2010 and 2017



Source: LEHD Origin-Destination Employment Statistics as modified by W-ZHA, LLC.

63% of employees who work in Oakland live within 10 miles of Oakland.

This is a decrease from 2010, when 71% of employees lived within 10 miles of Oakland.

The number of Oakland employees residing over 50 miles away from Oakland has increased from 1,400, or 4.3%, in 2010 to over 4,000, or 7.5%, in 2017. People who work in Oakland live in areas widely dispersed throughout the region.

Central Oakland, where there is a higher proportion of employees with earnings below \$15,000 per year, has the highest proportion, 12.6%, of its workforce traveling over 50 miles to work.

The North Oakland area has the greatest share and number of workers earning over \$40,000 per month. 68% of employees in North Oakland live within 10 miles.

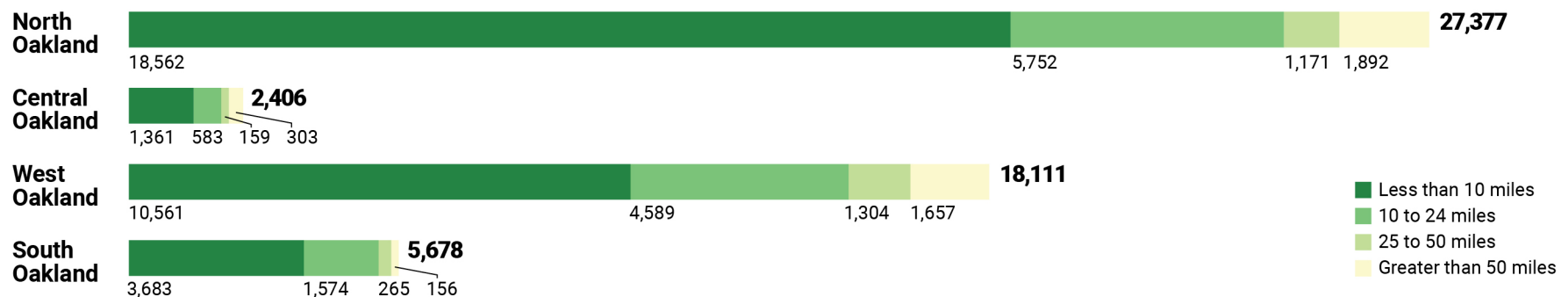
Top 10 Places for Where Oakland Employees Live | All Primary Workers | 2017

Place	2002		2010		2017	
	Employees	%	Employees	%	Employees	%
Pittsburgh City	10,984	30.7%	15,863	29.7%	14,985	28.2%
Monroeville Municipality	288	0.8%	817	1.5%	784	1.5%
Plum Borough	691	1.9%	678	1.3%	696	1.3%
West Mifflin Borough	482	1.3%	596	1.1%	596	1.1%
Bethel Park Municipality	461	1.3%	680	1.3%	667	1.3%
Wilkinsburg Borough	588	1.6%	874	1.6%	759	1.4%
Allison Park CDP ¹	483	1.4%	548	1.0%	582	1.1%
Baldwin Borough	382	1.1%	355	0.7%	400	0.8%
Franklin Park Borough	408	1.1%	357	0.7%	423	0.8%
Swissvale Borough	227	0.6%	276	0.5%	260	0.5%

¹ Census designated place.

Source: LEHD Origin-Destination Employment Statistics as modified by W-ZHA

Home's Distance from Employee's Work | Employees in Oakland Area Neighborhoods | 2017



Source: LEHD Origin-Destination Employment Statistics

Oakland employees with the lowest earnings are less likely to live within 10 miles of Oakland and more likely to live 50+ miles from Oakland.

The percentage of Oakland employees residing over 50 miles away from Oakland has increased from 4.3% in 2010 to 7.5% in 2017.

POINT OF DISCUSSION

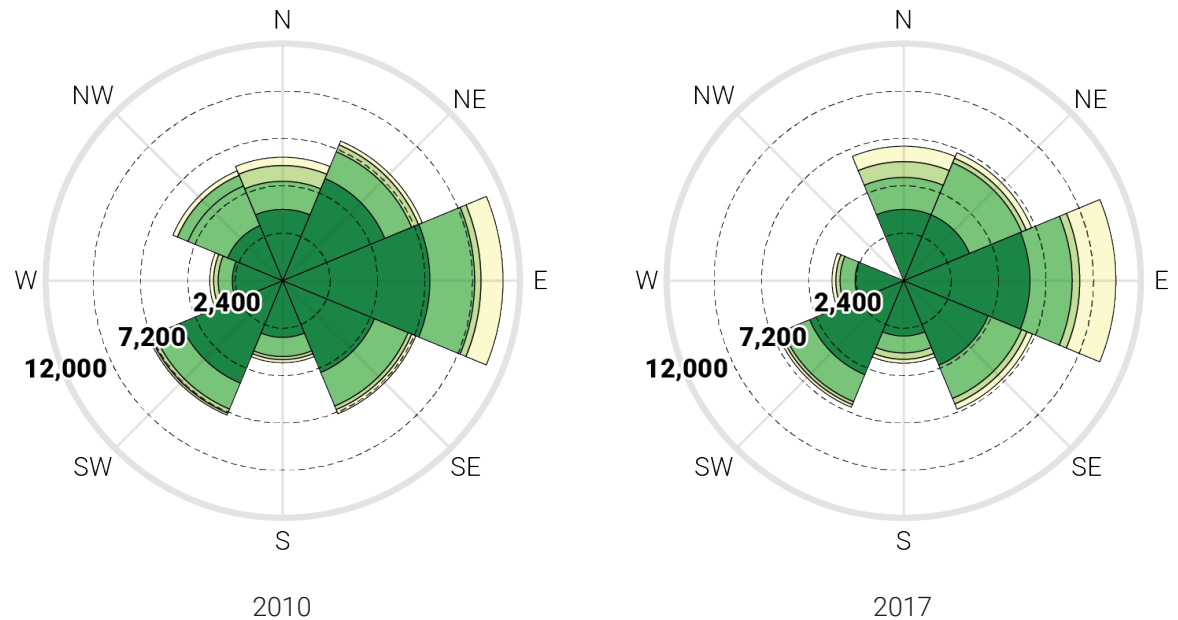
How can Oakland provide opportunities for those who make the least to live nearer to their jobs?

Home's Distance from Employee's Work | Employees in the Oakland Area | 2002, 2010, 2017

	2002		2010		2017	
SHARE OF TOTAL JOBS	39,573	100%	53,657	100%	53,573	100%
Less than 10 miles	27,929	70.6%	35,924	67.0%	34,167	62.9%
10 to 24 miles	8,134	20.6%	12,455	23.2%	12,498	24.1%
25 to 50 miles	2,108	5.3%	2,957	5.5%	2,899	5.5%
Greater than 50 miles	1,402	3.5%	2,321	4.3%	4,008	7.5%

Source: LEHD Origin-Destination Employment Statistics

Job Counts by Distance/Direction | All Workers



Home's Distance from Employee's Work | Oakland Employees by Earnings | 2017

	< \$1,250		\$1,251–\$3,333		\$3,333+	
SHARE OF TOTAL JOBS	5,127	9.1%	14,504	26.3%	37,977	64.6%
Less than 10 miles	3,031	58.2%	9,687	66.2%	24,192	62.2%
10 to 24 miles	1,121	22.4%	2,741	19.1%	9,687	26.4%
25 to 50 miles	284	5.8%	829	5.9%	1,950	5.3%
Greater than 50 miles	691	13.7%	1,247	8.7%	2,148	6.1%

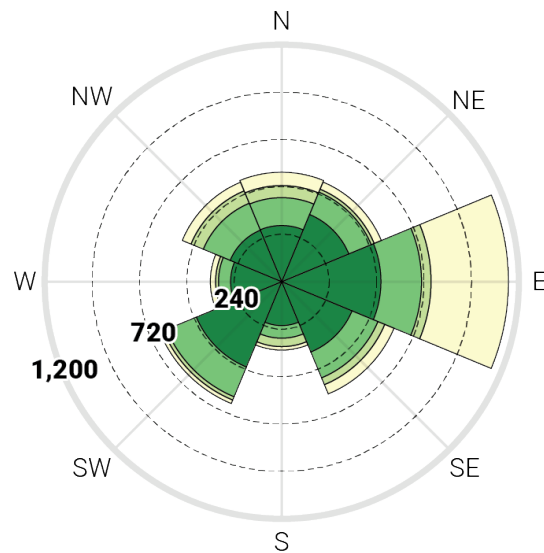
Source: LEHD Origin-Destination Employment Statistics

<\$15,000
part time worker

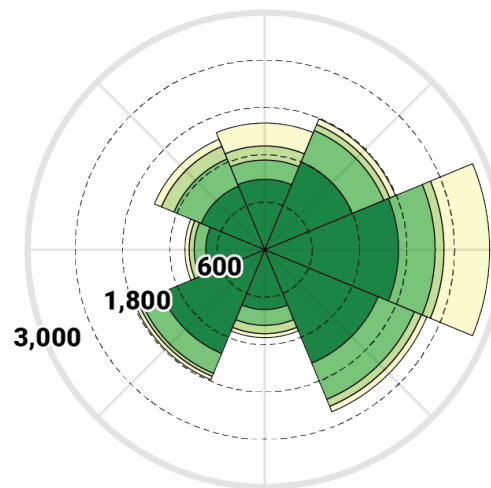
\$15,001-\$39,999
waiter (City mean wage \$25,670)

\$40,000+
lab tech, nurse

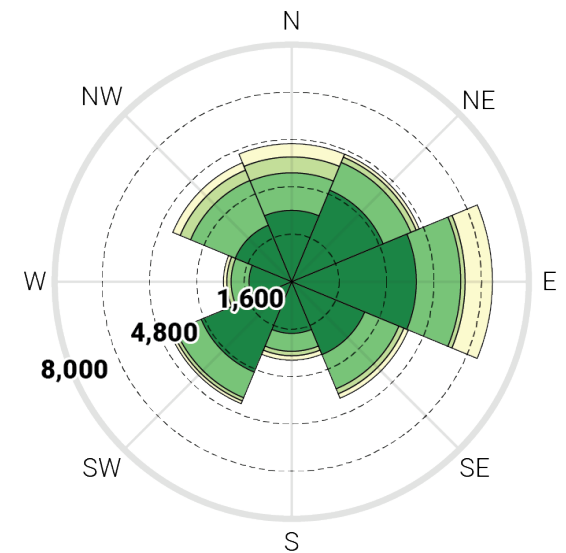
Job Counts by Distance/Direction in 2017



\$1,250 per month or less



\$1,251–\$3,333 per month

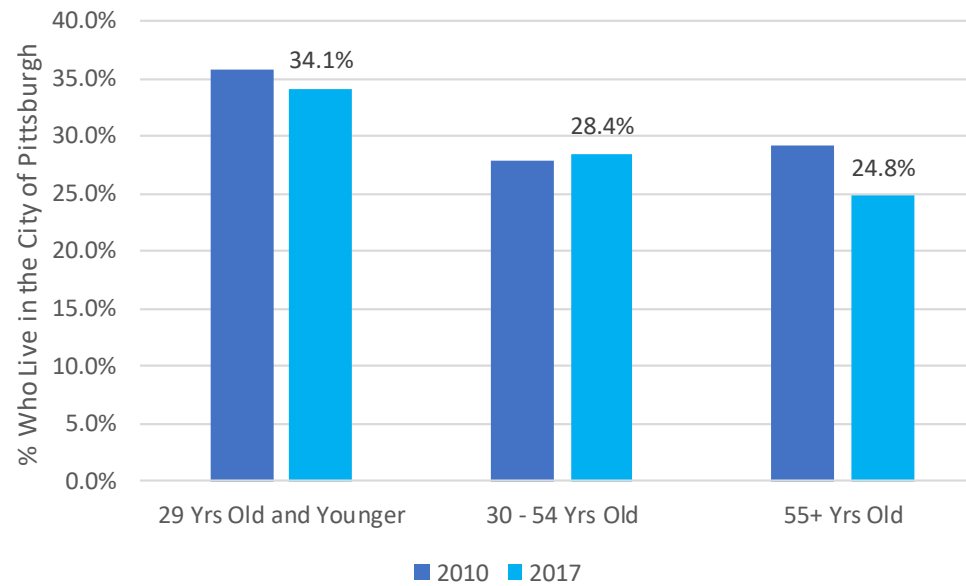


\$3,333 per month or more

Most employees reside within 10 miles of Oakland regardless of age. A higher percentage of younger employees live in the City.

- Oakland's younger employees are more likely to live in the city as compared to older Oakland employees. 32.4% of employees under 30 live in the city, as compared to 25.7% of those 30-54 years and 23.1% of those 55+.
- The percentage of employees living within the city declined across all age groups from 2010 to 2017, but most significantly by those 55+.
- Most employees reside within 10 miles of Oakland regardless of age.
- Young and older employees are more likely to live within 10 miles of Oakland as compared to their counterparts aged 30 to 54 years old.
- The 30 to 54 year old employee cohort, potentially full-nest households, are widely dispersed in terms of distance from home to work.

Employees Who Live in the City, 2010 and 2017



Home's Distance from Employee's Work By Employee Age, 2017

	29 Yrs & Under		30-54 Yrs		55+ Yrs	
Share of Total Jobs	10,818	20.2%	29,082	54.3%	13,672	25.5%
Less than 10 miles	7,018	64.9%	18,546	63.8%	8,766	64.1%
10 to 24 miles	2,070	19.1%	7,039	24.2%	3,447	25.2%
25 to 50 miles	577	5.3%	1,613	5.5%	663	4.8%
Greater than 50 miles	1,154	10.7%	1,884	6.5%	797	5.8%

Source: LEHD Origin-Destination Employment Statistics

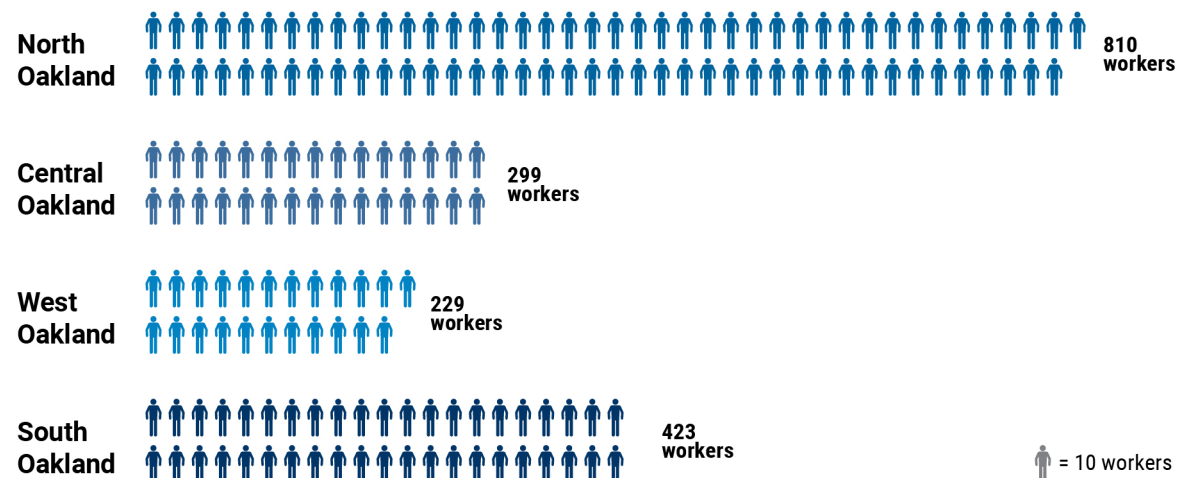
A total of 1,761 workers in the education and healthcare sectors reside in Oakland.

By far the greatest number of education and healthcare workers live in North Oakland, at 810 workers. South Oakland has the second-highest count at 423 workers.

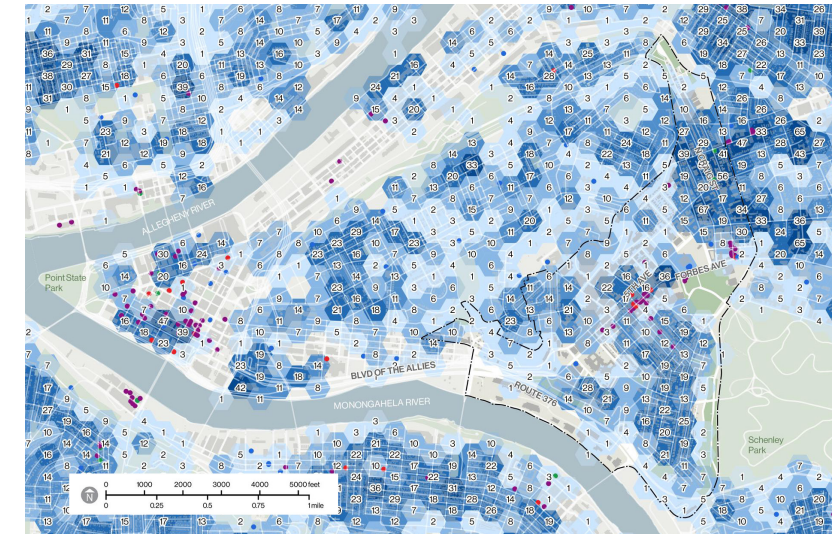
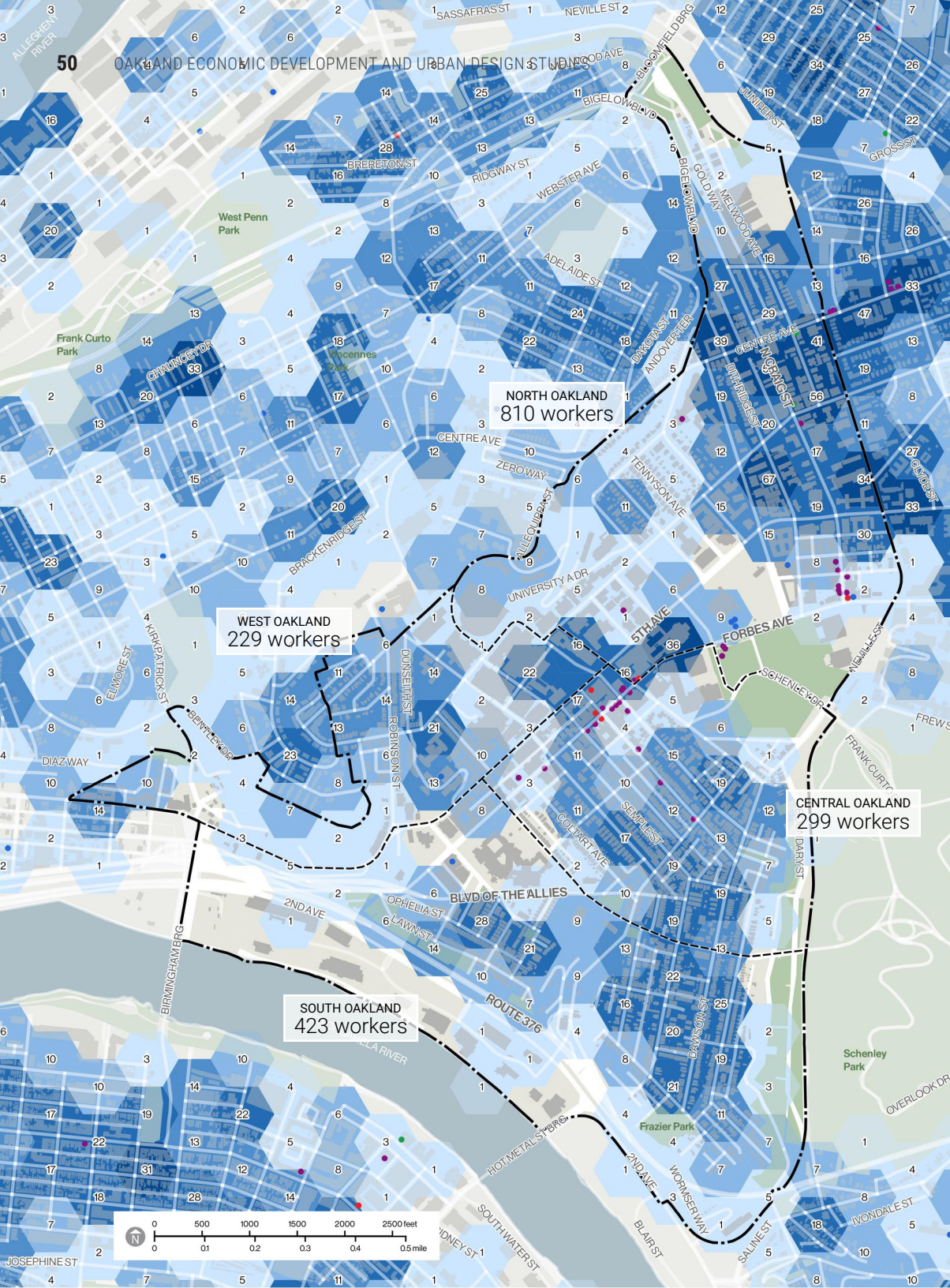
Health and education are the largest source of employment for Oakland residents. These workers may or may not work for the related industry employers in that neighborhood. LEHD resident area characteristics data was mapped to gain a sense of the number of potential workers by industry who may live in the neighborhood. Health and education sector workers include any staff who may work at a hospital, physician's office, nursing home, social services agency, school, university, or similar category.

While health and education is a key industry employer for Oakland residents, it appears likely that Oakland residents represent a low percentage of the total jobs in these employers based in Oakland. If all of the Oakland residents who worked in the health education sector in Pittsburgh worked close to home in Oakland, it would only represent 6% of the estimated 30,000 employees tied to those sectors. It is important to remember that health and education goes beyond university and hospital employment but includes a wide range such as doctors' offices, nursing homes, parochial schools, and pre-K education in different parts of the city.

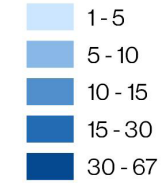
Education and Healthcare Workers in Oakland



Source: LEHD Origin-Destination Employment Statistics



Education and Healthcare Worker Residences



Local Amenities



Data Sources

LEHD Origin-Destination Employment Statistics
OpenStreetMap

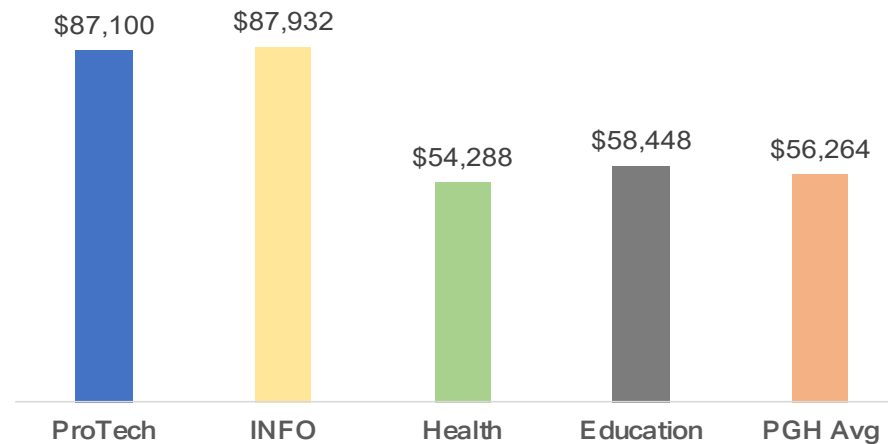
Oakland has 257 residents who work in the information and professional fields, significantly fewer than the number of residents who work in the healthcare and education fields.

The greatest number of workers in information and professional fields live in North Oakland; similar number of workers in these fields live in South and Central Oakland.

Information and professional / technical workers are used as proxies for an innovation economy type workforce. Information industries include digital media and software publishing. Professional technical industries include engineering, computer design, research and development (including biotech) as well as creative professionals in marketing, advertising, and related industries. It also includes more traditional professional services such as accountants and lawyers.

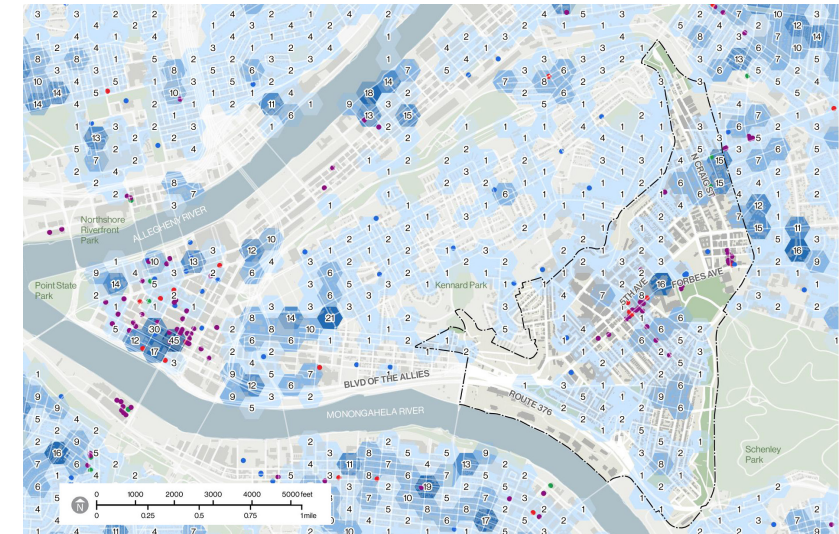
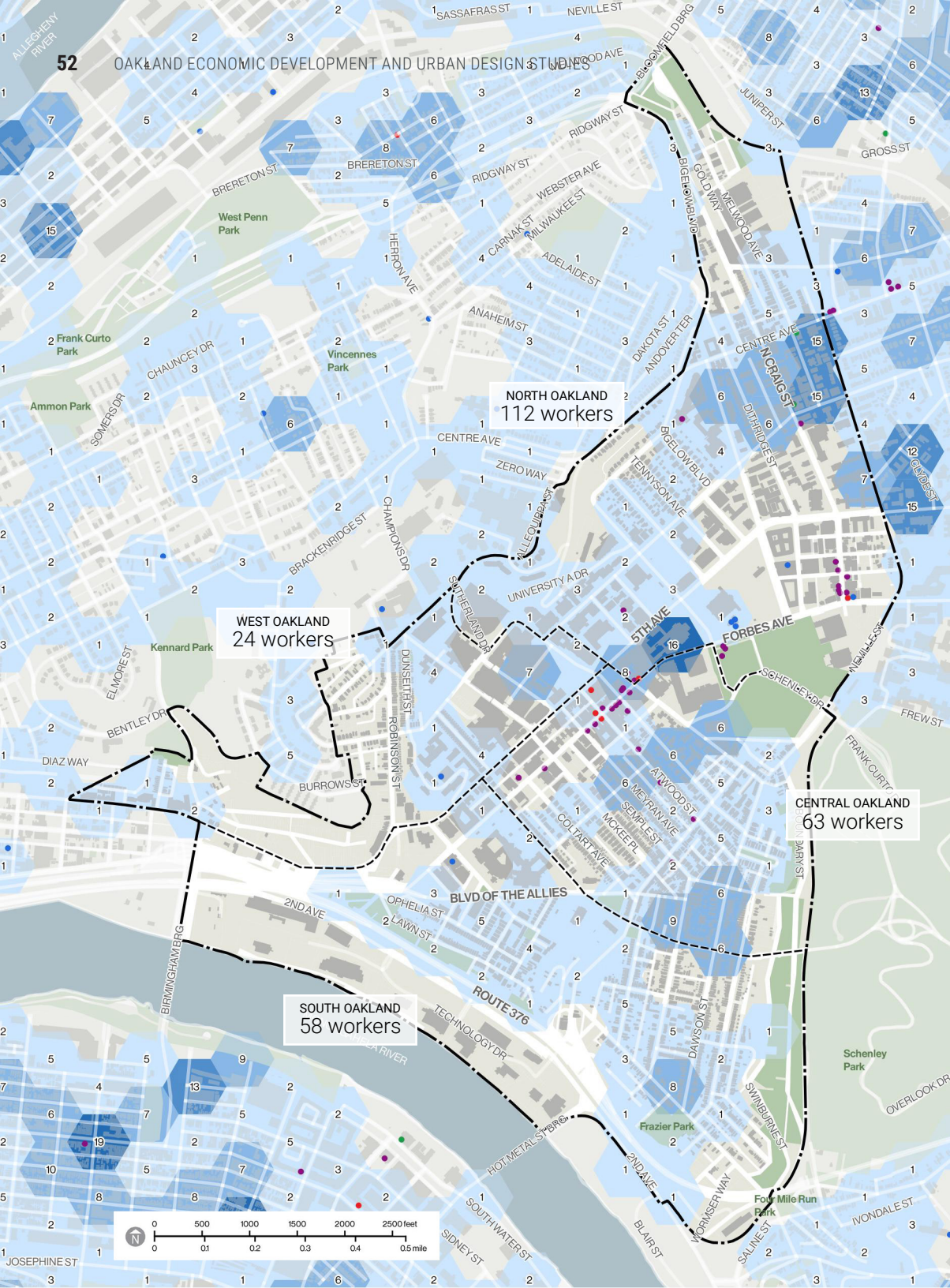
Significantly increasing the number of information and professional/technical workers who live in the neighborhood could alter the economics of housing in Oakland. Information and professional technical workers on average make:

Average Annual Wages | Pittsburgh Metro 2Q2019 (ES202)

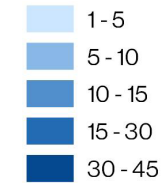


- 60% more than health workers
- 55% more than the average employee in the Pittsburgh metro
- 50% more than the education industry

For a single person household, the salary premium for working in a information and professional field means that household could have as much as an additional \$820 a month to spend on housing costs, assuming that 30% of income is spent on housing costs.



Information and Professional Worker Residences



Local Amenities



Data Sources

LEHD Origin-Destination Employment Statistics
OpenStreetMap

Oakland has an active property market.

Four to six percent of properties in Oakland are sold every year. In 2018, a single large purchase price influenced the average purchase price, which has otherwise varied between \$120,061 to \$328,200 per property.

For-sale housing prices vary considerably.

Based on a market snapshot in November 2019, there were eight one-bedroom units, nine two-bedroom units, seven three-bedroom units, four-bedroom units, and two five-bedroom units for sale. One-bedroom units ranged in listing price from \$127,000-\$184,999; two-bedroom units ranged from \$89,000-\$399,000; three-bedroom units ranged from \$144,999-\$359,000; four-bedroom units ranged from \$50,000-\$325,000; five-bedroom units ranged from \$229,000-\$799,000.

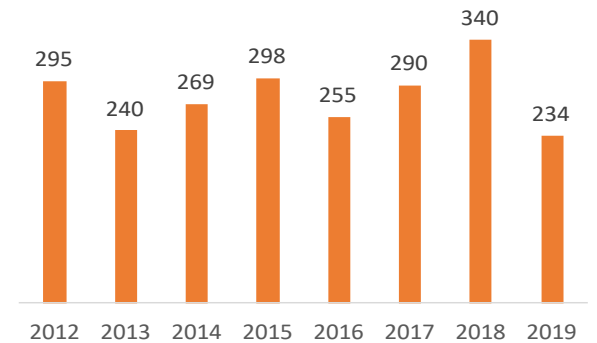
On average, for-sale asking prices in Oakland were \$168.30/sq. ft., but there is significant variation across Oakland. Converting housing prices to value per square foot allows for comparisons of value regardless of the size of unit. North Oakland was at the average with asking prices of \$168.47/sq. ft. West Oakland was 23% below the Oakland average with average price per square foot of \$129.29. Central Oakland was the most expensive market area with asking prices 11% higher than the Oakland average. Central Oakland asking prices averaged \$187.59/sq. ft. The proximity to Pitt may be a key driver of the differences in housing prices across Oakland.

At the time of the analysis, there were no properties listed for sale in South Oakland.

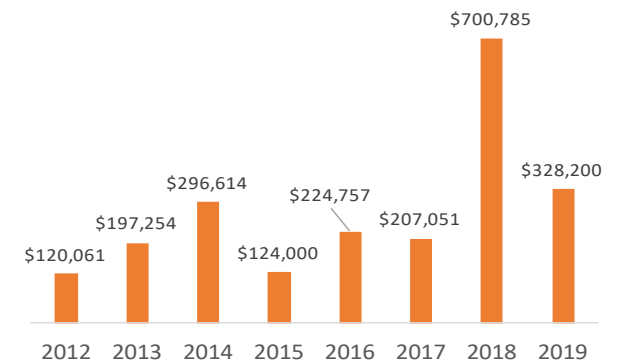
The sales activity could be showing potential assembly based on how it is concentrated. More residential property sales appear to be happening in South and North Oakland, compared to West and Central Oakland. Commercial property sales are clustered at the Pittsburgh Technology Center, the Fifth and Forbes Corridor, the gateway to Oakland on Fifth Avenue, the Fifth and Forbes Avenue Corridor, and the N. Craig Street and Centre Street corridors in North Oakland.

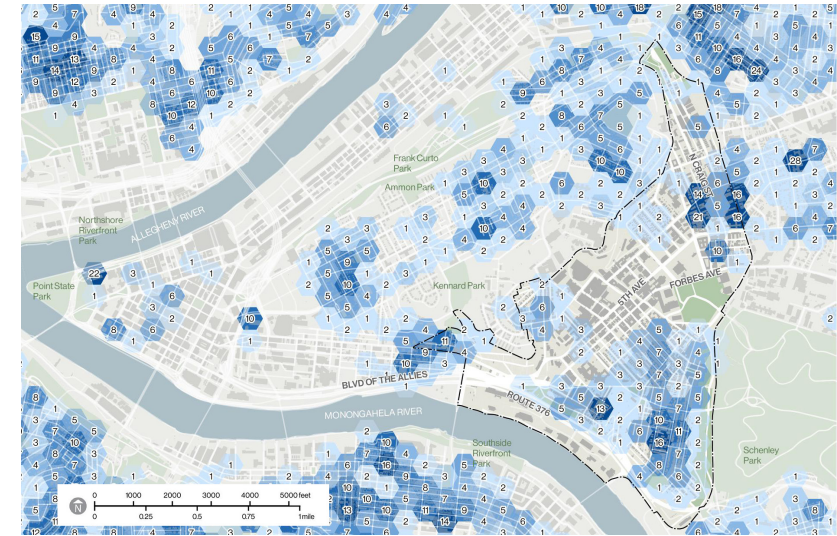
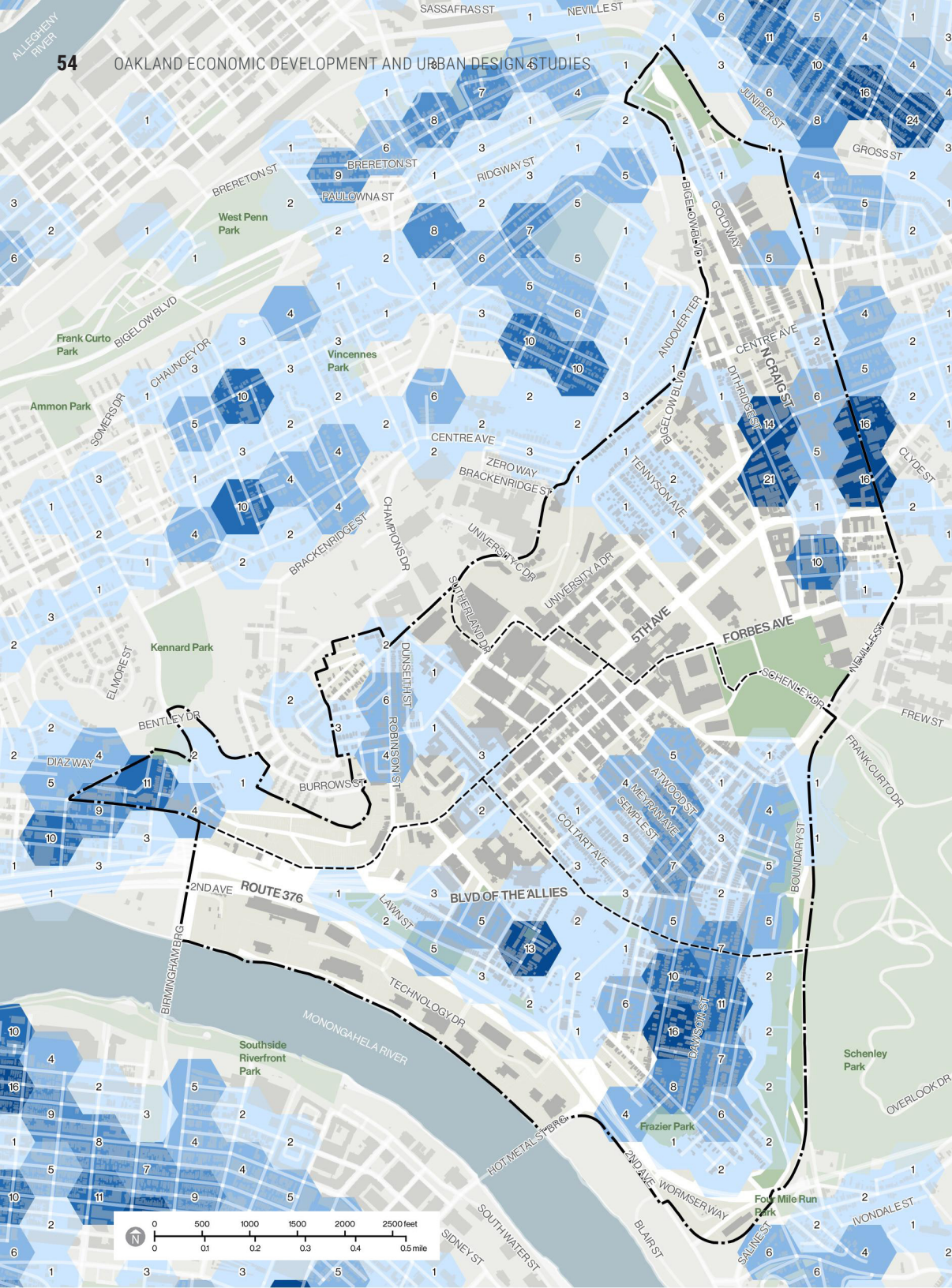
Recent residential building permits show activity in each neighborhood, with the highest level of activity in North Oakland.

Number of Property Sales

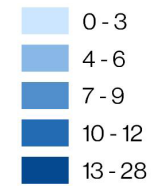


Average Purchase Price per Property



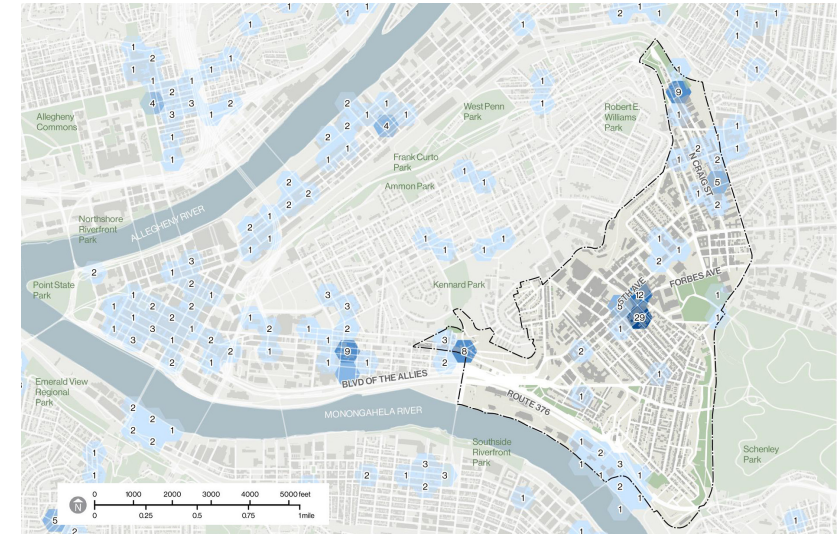
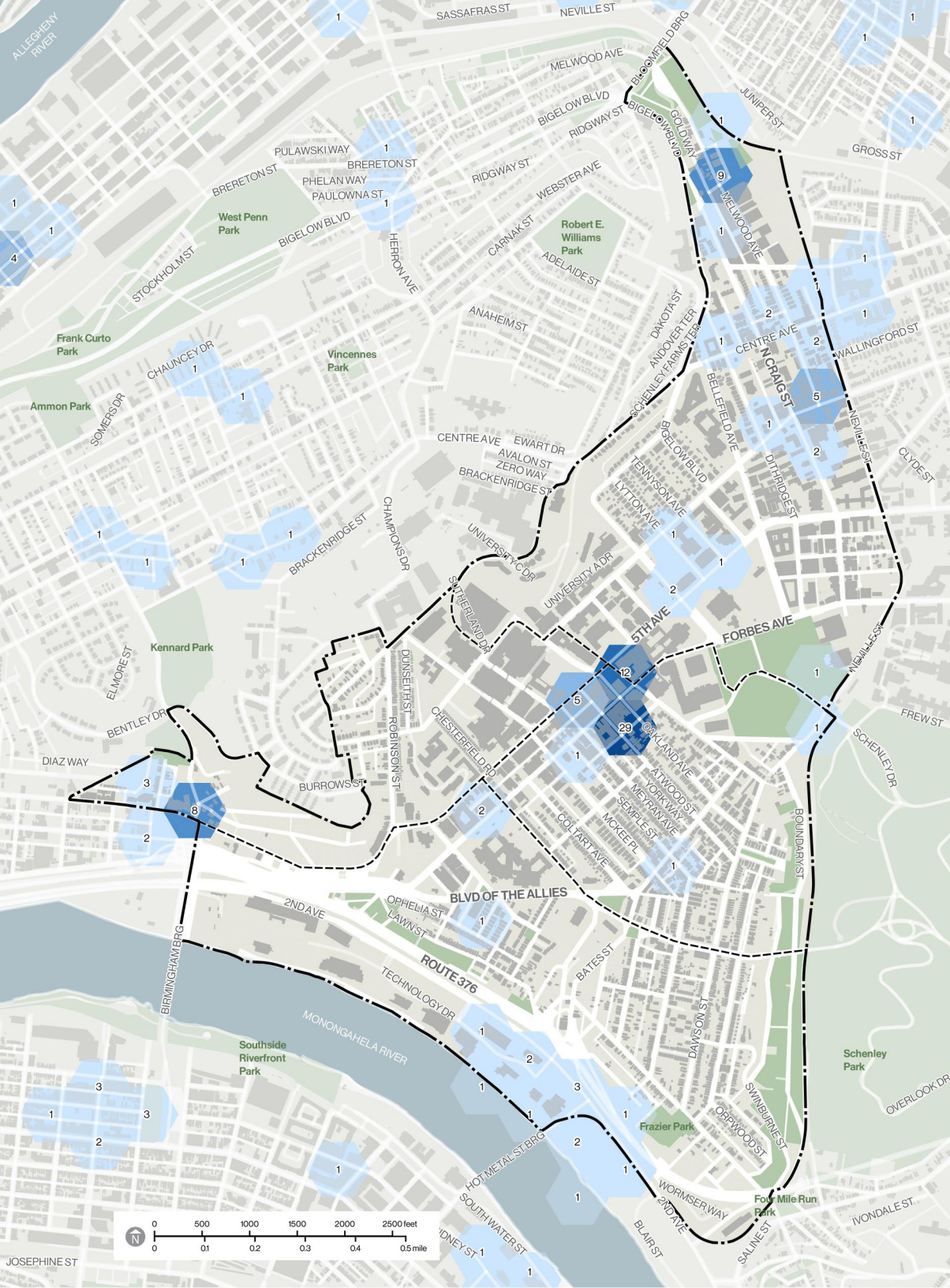


Residential Property Sales, 2018

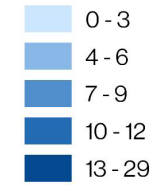


Data Sources

Allegheny County Property Sale Transactions
Allegheny County Property Assessments

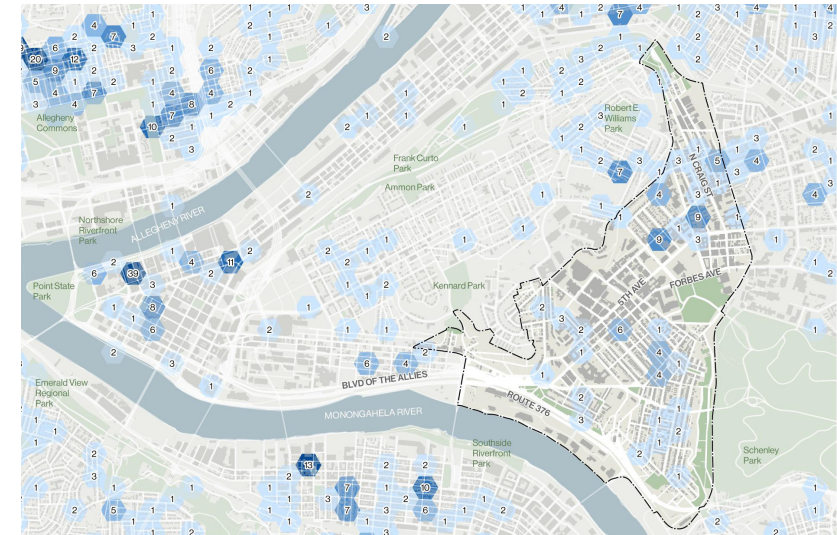
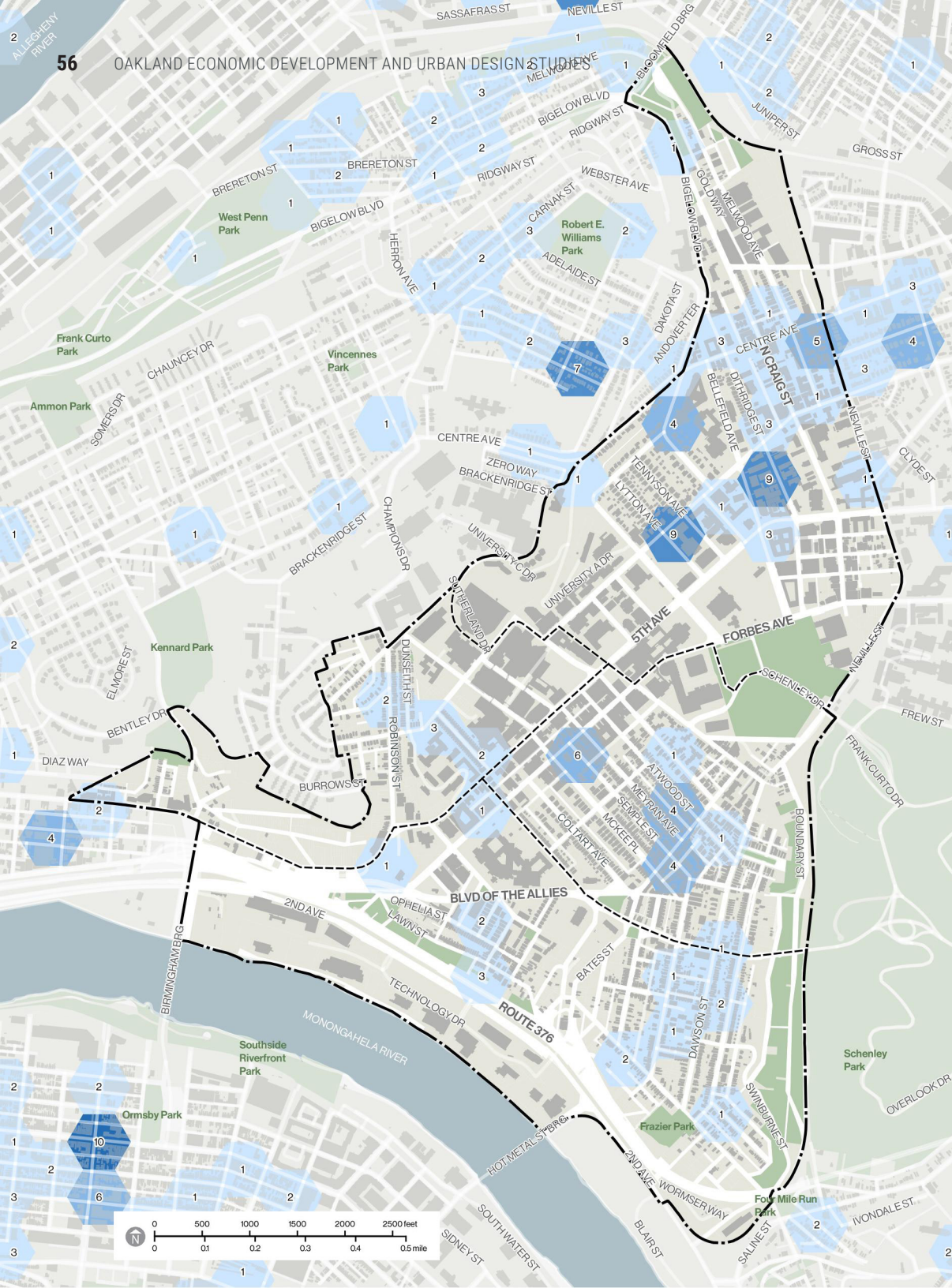


Commercial Property Sales, 2018

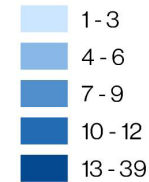


Data Sources

Allegheny County Property Sale Transactions
Allegheny County Property Assessments



Residential Building Permits, 2018 (>\$10k)



Data Sources

City of Pittsburgh Building Permit Summary
 Allegheny County Property Assessments

Employment that requires office space is growing in Pittsburgh, including for technology-focused tenants.

According to CBRE, office-inclined employment grew 12.2% over the last 10 years. Recent office development has occurred in the Strip, Lawrenceville, East Liberty, and, to a lesser extent, Oakland. According to Jones Lang LaSalle, one-third of office leasing activity in 2018 was attributable to technology tenants.

Oakland supply of office space, with a vacancy rate of 1%, is full. There is 3.1 million square feet of office space in Oakland. Oakland's office space has been fully occupied (having less than 5% vacancy), for at least 10 years.

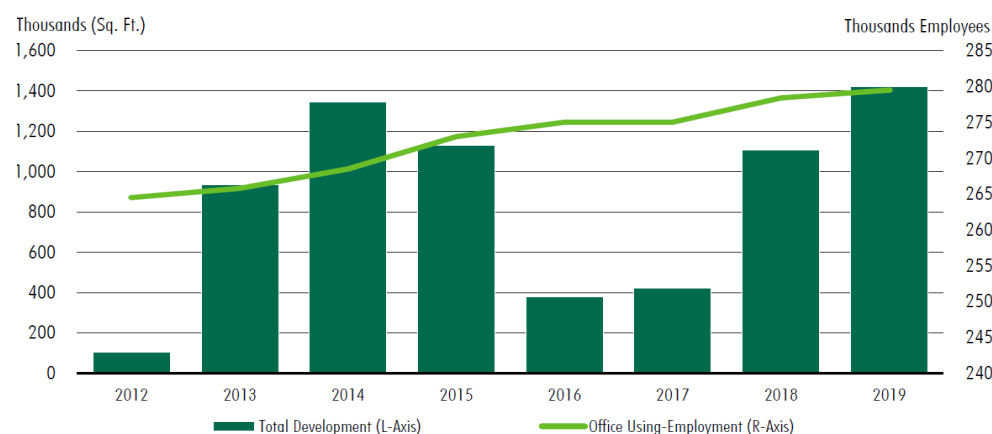
For new office, Oakland commands the highest rents in Pittsburgh at \$40-\$50 per square foot. Older Class B office space in Oakland goes for less. As a snapshot, in the 3rd Quarter of 2019, the average asking rent in Oakland was the cheapest out of the CBD, Strip District/Lawrenceville, and East End. Given that office space is effectively full, this means that for-lease spaces are likely lower cost, poor quality, and smaller.

Companies want to be in Oakland; there is not enough office space available to accommodate demand. Because of the lack of available space in Oakland, tenants have spread to other innovation submarkets, including Bakery Square, The Strip, Lawrenceville, Southside, Hazelwood Green, and Bloomfield. These submarkets are profiled on page 56–57.

"Peeling back the layers of the technology ecosystem in Pittsburgh reveals that the universities are at the core. Without the intellectual property coming from the universities and the entrepreneurs receiving the training from the post-secondary institutions in the region, the local technology industry would not be where it is today."

Jones Lang LaSalle, "2019 Pittsburgh Technology Report"

Office-Inclined Employment Growth Driving Office Construction in Pittsburgh



Source: BLS.gov – Pittsburgh MSA; CBRE Research, Q4 2019.

Office Market Conditions | 3rd Quarter 2019

Submarket	SF	Vacancy Rate	3rd Qtr 2019 Average Asking Rent
Central Business District	26,000,000	13.9%	\$26.74
The Strip/Lawrenceville	2,100,000	11.5%	\$33.00
East End	1,800,000	4.7%	\$29.21
Oakland	3,100,000	1.0%	\$22.86

Source: Grant Street Associates; W-ZHA

There is ongoing growth and development in other innovation submarkets in Pittsburgh.

East Liberty and the East End: Bakery Square

Bakery Square and East Liberty advertise their proximity to Carnegie Mellon, UPMC and the University of Pittsburgh. Shuttle services provided by CMU and Pitt run between Oakland and Bakery Square during core business hours. According to a Walnut Capital representative, Bakery Square's developer, Google and other tenants would have preferred Oakland, but it was not an option – Oakland is still considered "Ground 0" for tech space.

Bakery Square offers tech office product with high floor-to-ceilings, flexible floor layouts, lots of natural light, amenities within the buildings, and "soft lab" space, or space that includes workbench space, not wet lab space with more extensive ventilation needs.

Bakery Square 2.0, a second phase 12-acre mixed-use project, is under-construction with 400,000 square feet of office space and 307 apartments and townhomes.

Bakery Square 3.0 is a third phase that will bring 320,000 square feet of additional office space with a new parking garage.

Bakery Office Four is an adaptive re-use of the Mathews building, 60,500 square feet, to office space and is currently under-construction.

East Liberty Center is a 60,000 square foot, Class A office building under-construction in East Liberty.

Liberty East is a mixed-use project containing 246,000 square feet of office space (as well as new Whole Foods) in East Liberty's Penn Avenue business district.

Bloomfield

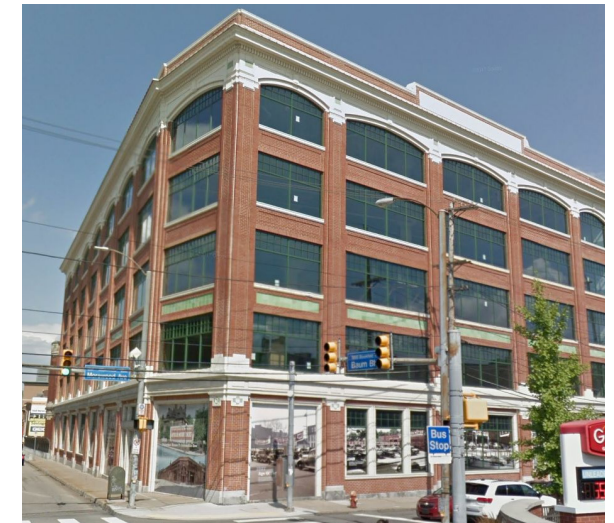
Biotechnology development is happening in Bloomfield beyond an easy walking distance to UPMC's hospitals in Oakland.

5000 Baum, an old 200,000 square foot Ford factory is under-construction in Bloomfield.

5000 Baum will house Pitt's Immune Transplant and Therapy Center and \$200 million of UPMC investment.



Development in Bakery Square has included multiple phases of adaptive reuse and new construction.



5000 Baum Street, Bloomfield

The building will contain research and wet-lab and office space for clinical and industry partners.

The plan is to develop a second phase with additional lab space for private companies.

5000 Baum is designed to be a world-class space for labs, offices, startup companies and industry partners with the major focus on creating new drugs and treatments in transplantation, cancer, autoimmunity, aging and chronic disease.

The Strip and Lawrenceville

There has been a considerable amount of new office and tech investment in the Strip District.

Tech-Flex has been a popular product in this submarket because there is a supply of older warehouse buildings. With their large floorplate

and high bay space these buildings are a good fit for robotics and advanced manufacturing companies.

Tech office development is also happening in the Strip with Oxford Development's 3 Crossings, District 15, Waterfront Place and a number of adaptive re-use projects.

Available land and buildings make the Strip ripe for additional tech investment.

Hazelwood Green and Southside

Redevelopment of Hazelwood Green offers larger sites for new construction.

Mill 19 is a 265,000 square foot adaptive re-use of the original shed building on the former LTV Steel mill site.

There are three buildings planned within Mill 19. One building is complete and houses CMU's Manufacturing Initiative, Advanced Robotics Manufacturing and Catalyst Connections as tenants. A second building is under-construction for Aptiv Autonomous Vehicles. The third building (not yet built) is 112,000 square feet of flex tech space.

Recently, Hazelwood Green announced their intention to renovate the Round House building for use as a technology accelerator and co-working space.



PHOTO: WWW.CBRE.US

3000 Smallman Street, The Strip



PHOTO: RIDC

The adaptive reuse of Mill 19 is one of the first projects in Hazelwood Green.

Despite the low vacancy rate for office space in Oakland, there have only been three significant office projects developed over the last five years.

Oakland saw its multi-tenant office supply increase by 241,000 square feet over this time period, while East Liberty and the Strip/Lawrenceville submarkets together added more than 1 million square feet. The three projects in Oakland include new construction at Schenley Place along Bigelow Boulevard/Bayard Street in North Oakland and the Murdoch Building on Forbes Avenue in Central Oakland, as well as adaptive reuse of a former Cadillac Dealership for Craft Place on Boulevard of the Allies.

There is almost 700,000 square feet of office space under-construction or approved for development in Oakland.

Oakland's approved and planned buildings would increase office supply by 30%.

The Pittsburgh Athletic Association is the renovation and repositioning of an historic building, which includes significant office space as part of a mixed use project. The Riviera is a new construction project in the Pittsburgh Technology Center.

In addition to these building Wexford Science + Technology proposed a 200,000-250,000 square foot office/lab building at 3440 Forbes. The project was not approved due to excessive height.

All of these buildings are speculative office buildings financed without an anchor tenant. Purely speculative office is a rarity in most U.S. markets.

Oakland Recent Office Investment				
Building	Year Complete	SF	Type	Parking Spaces
Schenley Place	2015	105,000	Office	117
Murdoch Building	2018	95,000	Office	55
Craft Place	2019	41,000	Office	87
TOTAL		241,000		259

Source: Pittsburgh Business Journal; Strada Craft Place Plans; W-ZHA

Under-Construction (UC) and Approved Office Oakland				
Project Name	Oakland Neighborhood	Open	SF	Product Type
Pittsburgh Athletic Association (UC)	North Oakland	2020	85,000	Office
The Riviera (UC)	South Oakland/PTC	2020	160,200	Office
Innovation Research Tower (Approved)	Central Oakland	2022	286,000	Office/"Light Lab"
Elmhurst Innovation Center	South Oakland	2020	156,000	2 Flex-Tech Bldgs
TOTAL			687,200	

Source: Pittsburgh Business Journal; W-ZHA

Transportation needs, small parcel sizes, and limited development capacity are constraining the growth of innovation neighborhood space in Oakland according to developers.

There is currently very little lab space that is not institutional; with the research, NIH funding, and patents in Pittsburgh there should be a market for private-sector development. The new 500 Baum Street will have more speculative lab space in Phase II of its development.

Oakland is a highly desirable office, tech and lab location, but access, parking, and height limits are constraints. Many developers and brokers interviewed suggested a series of access and parking improvements, including district parking, public parking, and the need for creative and effective transit solutions. The value of future BRT, frequent transit connections to East Liberty, and access to Hazelwood Green were mentioned in interviews.

The relatively low height limits of existing zoning, including in the high-density public realm districts, are constraining redevelopment. Lab space often requires higher floor-to-floor heights than office space, resulting in a taller building in feet as compared to number of floors. Lab space often also has major ventilation infrastructure on the top of the building, further increasing height in feet while not increasing rentable floor space. The as-of-right height limit for the Fifth and Forbes Public Realm District

is 85 feet, allowing up to 120 feet by special exception provided the building has frontage on Fifth Avenue. In the other public realm districts that permit significant office development on Craig Street and Boulevard of the Allies, the as-of-right height limit is 60 feet, with 85 feet allowed by special exception. The standards for additional height by special exception require that it not create detrimental impacts on neighboring properties. It is challenging to accommodate significant lab development under the 85' height limit.

The challenges of land assembly and small parcel sizes limit Oakland's development potential. Significant amounts of land and parcels in key locations are owned by the institutions. Assembling sites of sufficient size and at a price point able to accommodate tech office and/or lab space is not easy.

In interviews, developers expressed that bold ideas and investment are necessary to fully leverage Oakland's development potential and grow the Pittsburgh economy. Developers see the evolution of Oakland as a key to Pittsburgh's future growth and economic development. The lack of consensus on issues of density, transit, land-use mix are challenges.



Recent development to the maximum height allowed on Forbes Avenue has included major student housing projects and hotel development.



The design of use of first floor spaces - particularly for outdoor dining - has been a significant focus in Midtown Atlanta. Photo courtesy of Midtown Alliance.