



### AN EXPLAINER:

# INNOVATION DISTRICTS: FUELING ECONOMIC DEVELOPMENT AND OPPORTUNITY ACROSS AMERICA

J.H. Cullum Clark, Director, George W. Bush Institute-SMU Economic Growth Initiative

June 2024

America's urban innovation districts are succeeding as engines of economic development and opportunity, the George W. Bush Institute-SMU Economic Growth Initiative shows in a new report, "Engines of Opportunity: How Eds and Meds Institutions Can Become More Powerful Drivers of Prosperity in America's Cities."

Innovation districts are dense, physically compact urban areas where universities, other knowledge-generating institutions, and leading-edge companies of diverse size and industry, including startups and supportive organizations like accelerators, cluster together to stimulate creativity, collaboration, innovation, and entrepreneurship.

Today's innovation districts are significantly outperforming their surrounding cities and the nation's metro areas as a whole for creating jobs, attracting high-skilled people and innovative firms, increasing incomes, and stimulating nearby housing and commercial development, a new first-of-its-kind Bush Institute-SMU dataset shows.

Innovation districts represent the fastest-growing economic development strategy in America's cities today. There are more than 60 districts in the United States, according to the Global Institute on Innovation Districts (GIID). They are spreading geographically, with new initiatives underway in more than a dozen metropolitan areas that didn't host any before 2020.

### WHY INNOVATION DISTRICTS

The economic rationale for innovation districts is the idea that agglomeration economies – the productivity and innovation benefits arising from talented people and cutting-edge firms working in proximity to one another – function best when innovators are very close together. The benefits of clustering R&D labs are most powerful when they're within a guarter mile of each other, a 2012 Federal Reserve Bank of Philadelphia <u>study</u> found.

Many people also seem to like working in innovation districts, so they help universities and academic medical centers – eds and meds institutions – as well as innovative firms attract talent. "It's actually really fun to work with other smart people around you," Johannes Freuhauf, founder of life science coworking space and launchpad firms BioLabs and LabCentral, has said.

Successful innovation districts generally involve close cooperation among a variety of players: one or more eds and meds institutions, specialized real estate developers, entrepreneurs, established companies,

investors, philanthropists, community nonprofits, and local (and sometimes state) governments. City and state governments support the development of local innovation districts because having a significant concentration of business R&D activities is a "game changer" for cities, in the words of Doug Edgerton of the North Carolina Biotechnology Center. **Research Triangle Park (RTP)**, started in 1960 between Raleigh and Durham, North Carolina, has played a pivotal role in the emergence of its region as one of the most innovative, high-income, fast-growing areas in the United States.

### **EVOLUTION OF AN IDEA**

Ideas on what an innovation district should aim to be have evolved rapidly, even as the number of innovation districts has soared. Figure 1 presents a schematic of this evolution: Each rectangle represents a stage in state-of-the-art thinking about innovation districts, and each circle represents forces that caused this thinking to shift to a new stage.

- Industrial districts: Nineteenth-century manufacturing firms tended to congregate closely together in urban industrial districts like Midtown in Manhattan and Milwaukee Avenue in Chicago because it was efficient to locate facilities within walking distance of dense pools of skilled workers and intermediate goods suppliers benefits economists call "Marshallian externalities" after the British economist Arthur Marshall.
- **Suburban research parks:** Corporations started moving operations to suburban locations like RTP and the Boston area's Route 128 in the 1950s and 1960s, mostly to reducing cost and give employees higher quality of life in less crowded conditions.
- **Urban innovation districts:** Leading-edge firms increasingly came to prefer locating R&D facilities in dense urban locations near research universities in the 2000s, based on growing recognition of the benefits of proximity, including serendipitous "collisions" among researchers. **Kendall Square** in Cambridge, Massachusetts which had been an industrial district as far back as the early 1800s started to outshine the more dispersed Silicon Valley in biotechnology starting the 2010s due to greater density.
- Innovation-centered live-work-play districts: Districts started to incorporate residential and recreational elements in the 2010s, driven by growing enthusiasm for quality placemaking. This change also reflected recognition that agglomeration economies work best in places with heavy mixing of land uses and that the 20th century practice of separating office real estate from other activities was a key reason most American downtowns declined between 1950 and 2000. Virtually all districts launched since 2010 have incorporated "live" and "play" elements in their plans.

INCLUSIVE INNOVATION-URBAN LIVE-WORK-SUBURBAN INDUSTRIAL CENTERED INNOVATION PLAY INNOVATION DISTRICT LIVE-WORK-DISTRICT INNOVATION PARK (1800s)PLAY DISTRICT (2000s)NEIGHBORHOOD (1950s-60s) (2010s)(2020s)"New Urbanism"+ Business costs, new preferences: Diversity & employee quality Marshallian Network / info Quality inclusion: Engage of life externalities: externalities: placemaking community, address Skilled labor. People & idea "gentrification" intermediate collisions fears goods

Innovation Districts: Evolution of an Idea

• Inclusive live-work-play innovation neighborhoods: The 2020s have seen rising concerns that successful innovation districts might stimulate explosive increases in housing prices in nearby neighborhoods and lead to displacement of lower-income people living there. Many district leaders now pay much closer attention to building districts in ways that will benefit people in surrounding neighborhoods and mitigate displacement.

Today's innovation districts generally include the following elements:

- High-quality, amenity-rich, accessible physical space that meets the needs of leading-edge firms, including subsidized space for financially constrained startups.
- Curation and programming to amplify the benefits of being there. Specific goals include attracting researchers and companies from a range of fields to promote interdisciplinary convergence of ideas, having firms of all sizes, providing support for startups, promoting mixing of activities and space uses, and fostering connection and collaboration.
- Strong emphasis on design and quality of life, including spaces that support innovation work, design elements to promote social interaction, and walkable access to restaurants, coffee shops, green spaces, and other amenities.
- Nearby housing to promote walkability and hold down commuting times.
- Initiatives to foster inclusion, including workforce development and K-12 education and enrichment programs.
- Governance structures to ensure effective collaboration and organization among district stakeholders a crucial element, as Julie Wagner points out in a 2023 GIID report.

## NEW BUSH INSTITUTE-SMU DATA CONFIRMS THE SUCCESS OF AMERICA'S INNOVATION DISTRICTS

Figure 2 shows how 36 U.S. innovation districts are performing as placemaking and economic development initiatives compared with America's metropolitan areas as a whole, based on new Bush Institute-SMU data.

Figure 2

Innovation Districts: Neighborhood Prosperity and Opportunity (Average performance vs. average for America's 385 metros)

		Educa	tional Attai	inment		% Growth	Commute		
Cycums	Pop Growth 2010-20	% Assoc/ Some Coll (of non- Bach) 2020	% Bachelors or higher 2020	Change in % Bachelors+ 2010-20	% Creative Sectors	Median Household Income	Average Commuting Time 2020	Chg in Avg Commuting Time 2010-20	
Groups	2010-20	Dau 1) 2020	2020	2010-20	2020	2010-20	2020	2010-20	
All 36 I nnovation Districts	9.8%							0.6	
Metro America	8.3%	43.6%	33.6%	4.8%	51.6%	31.7%	27.5	2.1	

The 36 districts in the dataset are decisively outperforming both metropolitan America as a whole and their own surrounding counties and metros on multiple metrics:

- Population in nearby neighborhoods is growing faster than average, showing how people are voting with their feet.
- Educational attainment levels among people living nearby are growing much faster than in surrounding areas, indicating that people of high attainment levels are moving in.
- Innovation districts are creating many attractive jobs, as reflected in relatively low and stable average commuting times for working people living nearby.
- Incomes are growing faster than average, reflecting inflows of high-income people but also above-average income growth for long-time residents of surrounding areas.

Our 36 innovation district neighborhoods have also outperformed their own metro areas and metropolitan America as a whole for income growth among Black, Hispanic, Asian American, and White populations. Their edge in Black and Hispanic incomes compared with metro-area and national Black and Hispanic averages is especially large.

Among relatively large districts, top performers on these metrics include **Kendall Square**, **Tech Square** in Atlanta, **uCity Square** in Philadelphia, and **University of Utah Research Park** in Salt Lake City. (See Table 1 for performance data for each of our 36 districts.)

The Bush Institute-SMU report also highlights factors that account for why some innovation districts perform especially well as engines of economic development:

- **Innovation district age and size:** Districts that are older or larger than average in terms of employers and working population are outperforming other districts for creating prosperity and opportunity in surrounding neighborhoods. The more established the innovation district, the stronger its benefits.
- Eds and meds institutions: Innovation districts associated with universities that generate stronger-thanaverage innovation impact as we measure it in the report outperform other districts for creative-sector jobs and increases in educational attainment levels.
- **Metro-area housing policy:** Districts in metros with less restrictive policies have mostly outperformed those in more restrictive metros for housing development, which predicts better growth in population, education levels, and creative-sector jobs.

America's innovation districts are also significantly outperforming other places in creating new housing supply, as Figure 3 shows. Building sufficient housing of all kinds is an essential element of successful placemaking.

Rents in neighborhoods surrounding our 36 innovation districts are increasing faster than average, as even relatively fast-growing housing supply is not keeping up with demand growth.

It's difficult to measure displacement of low- to moderate-income families directly, as no widely recognized measures of displacement in specific neighborhoods exist. Since there is frequently a racial overlay to displacement in U.S. cities, our report looks at changes in combined Black and Hispanic population shares as an imperfect proxy for displacement.

The 36 innovation districts in our dataset have higher combined Black and Hispanic population shares than metropolitan America as a whole, and they've experienced greater increases in combined shares since 2010 on average, as the right-hand panel in Figure 3 shows. **Our analysis counters the common narrative that successful innovation districts have caused significant displacement.** The evidence suggests that better-than-average housing supply growth has mitigated displacement in neighborhoods surrounding most of our 36 districts

Figure 3
Innovation Districts: Housing and Neighborhood Stability

		Black + Hispanic Pop Share						
Groups	% Growth in Units	% Built since 2010	% Built since 2000	Median Home Value	Median Rent	% Change in Rent	B+H Pop Share 2020	% chg B+H Pop Share 2010-20
All 36 I nnovation Districts	14.0%	15.6%	27.3%	\$276,290	\$ 1,012	39.8%	34.7%	1.4%
Metro America	6.5%				\$ 1,012	30.3%		

As for why some districts perform better than others on these measures, the Bush Institute-SMU report highlights two factors:

- **Metro-area housing policy:** Districts in metros with less restrictive housing policies have seen below-average rent appreciation and less evidence of displacement than districts in metros with more restrictive policies.
- Innovation district age and size: Districts that are older or larger than average have mostly outperformed other districts for housing supply growth. However, they are also experiencing faster rent increases, reflecting stronger-than-average housing demand growth, and they are showing some evidence of displacement.

In addition, office and lab space in innovation districts are performing very well by most metrics, though interest rate increases since early 2022 have dented demand in the near term.

- Class A office/lab space the highest quality space in a local market commands rents 10% to 50% higher than comparable buildings in the same local submarket but outside the innovation district in virtually all of our 36 innovation districts, based on CoStar data.
- Developers and leasing experts we've spoken with universally agree that demand for innovation district space is strong and growing, especially among life science companies, though the market has weakened since 2023 due to interest rate hikes and a temporary slowdown in venture capital fundraising. Developers have overbuilt life science-focused space in some coastal metros, but demand remains robust for innovation district space in most markets including Philadelphia, Washington, Raleigh-Durham, Atlanta, Nashville, and Dallas, according to CBRE research.

All the innovation districts in our dataset point to significant startup activity taking place on their grounds. St. Louis's **Cortex Innovation Community**, for instance, has helped create more than 415 startups and 4,000-plus jobs.

Our tentative conclusion: Districts that have proved successful as placemaking ventures have probably caused an acceleration in local innovation, based on strong evidence confirming the innovation benefits of innovative people working close to eds and meds institutions.

### **SOURCES & METHODS**

We draw out <u>definition of innovation districts</u> from Julie Wagner, president of the Global Institute on Innovation Districts (GIID), and Bruce Katz, Director of the Nowak Metro Finance Lab at the Lindy Institute for Urban Innovation at Drexel University. Katz and Wagner define innovation districts as "geographic areas where leading-edge anchor institutions and companies cluster and connect with startups, business incubators, and accelerators. They are also physically compact, transit-accessible, and technology wired and offer mixed-use housing, office, and retail." We slightly rework this definition because most districts in our dataset would not qualify under GIID's strict definition – mostly because of lack of housing and/or transit access. GIID's wording captures the common aspirations of most innovation district founders and leaders.

We've selected our districts with the goal of creating a broadly representative sample, not of building a comprehensive list. All innovation districts in our dataset satisfy at least one of three criteria: (1) members of the GIID network; (2) members of the Association of University Research Parks; or (3) frequently mentioned in published work on the subject.

We've identified the U.S. Census Tracts where each of our 36 innovation districts is located and assembled data from the U.S. Census Bureau's American Community Survey and other sources on these and all adjacent Census Tracts to measure economic outcomes. See the "Sources and Methods" appendix in our main report for a full explanation.

### **CONCLUSION**

Innovation districts represent one of today's most successful strategies for building innovation and entrepreneurship ecosystems and revitalizing distressed downtowns and other neighborhoods in U.S. cities. They have also proved to be highly adaptive, adjusting their goals and development plans in response to changing ideas and economic conditions.

The innovation district model will keep evolving. But America is likely to see many more districts come into being in coming years, which will mean more economic opportunity for people in cities across the country.

 $\label{eq:Table 1} \textit{Innovation Districts: Neighborhood Prosperity and Opportunity}$ 

				Educational Attainment				Com	mute	
								0/ Oh	- Commute	
				0/ A -1:		Charia		% Chg		Charles Aven
			Dom	% Adj Assoc/	%	Chg in %	%	Median	A	Chg in Avg
		Cammanita	Pop. Growth	Some	% Bachelors	Bach+	% Creative	Household Income	Average Commuting	Commuting Time (mins)
	Innovation Districts	Composite Score	2010-20	College	+ 2020	2010-20	Sectors	2010-20	Time (mins)	2010-20
	Thriovation Districts	Score	2010-20	College	+ 2020	2010-20	Sectors	2010-20	Time (mins)	2010-20
۱, ا	Virginia Tech Corp Research Ctr	0.81	0.96	1.20	1.91	1.15	1.48	1.39	0.56	0.95
	Atlanta Tech Square	0.69	0.90	1.49	2.50		1.48	1.18	0.30	0.93
3	Capitol City Innovation (Austin)	0.69	1.19	1.49	2.03	1.01	1.49	1.52	0.73	1.03
	South Lake Union (Seattle)	0.50	1.19	1.67	2.03		1.32	1.34	0.89	1.05
	uCity Square (Philadelphia)	0.30	0.97	1.04	1.87	1.03	1.51	1.34	0.89	0.93
6	Cortex Innov Community (St. Louis)	0.45	0.97	1.04	1.81	1.05	1.31	1.16		0.93
7	Auburn Res & Tech Fdn	0.36	1.26	1.03	1.81	0.97	1.35	0.93	0.70	0.94
8	Cincinnati Innovation District	0.34	1.02	1.42	1.33	1.04		1.24	0.03	0.89
9	Kendall Square (Cambridge)	0.33	1.18	1.14	2.20		1.55	1.24	0.70	1.05
	Lincoln Nebraska Innov Campus	0.21	0.98	1.32	0.81	0.99	1.12	1.44	0.58	0.88
	Houston Innov Corridor	0.15	1.02	1.24	1.81	1.01	1.12	1.04	0.84	0.88
	Longwood Medical Area (Boston)	0.13	0.98	0.91	1.18	1.03	1.54	1.07	0.47	1.07
	University of Utah Research Park	0.10	0.97	1.63	2.12	0.98	1.38	1.03	0.65	1.05
	Towerside Innov Dist (Minneapolis)	0.09	1.05	1.13	1.96		1.32	1.13	0.82	1.01
	Research Park (Champaign)	0.03	0.68	1.45	2.17	0.96		0.87	0.52	0.89
	Pittsburgh Innovation District	0.03	0.08	1.11	1.72	1.02	1.44	1.07	0.75	1.08
	Innov Hub at Res Park (Lubbock)	0.02	1.03	1.07	1.12	1.01	1.15	1.07	0.73	0.91
18	Cleveland Health-Tech Corridor	0.01	0.99	0.96	1.11	1.00	1.39	1.06	0.77	0.94
19	Centennial Campus NC State	-0.03	1.04	1.08	1.40			1.06		0.91
	Purdue Discovery District	-0.04	0.65	1.11	1.97	1.04	1.35	1.00	0.63	1.00
	PHX Core (Phoenix)	-0.04	1.05	0.89	1.16		1.12	1.00	0.80	0.93
22	University Research Park (Madison)	-0.05	0.96	1.42	1.86	0.97	1.26	0.92	0.67	0.94
23	Research Triangle Park (NC)	-0.07	1.45	1.08	1.98	0.98	1.01	1.09	0.86	1.06
24	Fitzsimons Innov Commty (Denver)	-0.13	1.02	0.64	0.43	1.00	0.98	1.71	0.74	0.97
	Innovation Quarter (Wake Forest)	-0.13	1.34	0.82	1.02	1.04	0.00	1.27	na	na
26	KU Innovation Park	-0.21	0.93	1.41	0.00	0.95	1.29	1.25	0.64	0.96
27	Coldstream Res Campus (Lexington)	-0.23	1.12	1.01	0.77	0.99	0.95	0.88	0.69	0.88
28	Rensselaer Tech Park (Albany)	-0.31	0.99	1.06	1.22	1.04	1.04	0.98	0.78	1.00
29	16 Tech (Indianapolis)	-0.33	1.05	0.78	0.54	0.99	1.06	1.01	0.77	0.91
30	ASU Research Park	-0.38	0.94	1.52	1.51	0.94	1.14	0.82	0.84	0.98
	Gainesville Innovation District	-0.46	0.93	1.15	1.57	0.77	1.43	0.89	0.58	1.06
32	UH Tech (Houston)	-0.52	0.85	0.73	0.82	1.04	0.92	0.87	0.85	0.91
	Pegasus Park (Dallas)	-0.53	0.92	0.87	0.94		0.55	1.38	0.88	1.01
	Tech Parks Arizona (Tucson)	-0.65	0.82	0.72	0.40	0.99	1.01	0.91	0.78	0.92
	Uni Tech Park at IIT (Chicago)	-0.81	1.02	0.94	0.94		1.25	0.95	1.09	1.22
	Discovery Dist (College Park MD)	-1.08	0.92	0.77	1.17	0.95	1.04	0.87	1.26	1.06
	Average for 36 Districts	-0.02	1.01	1.11	1.46	1.01	1.24	1.11	0.74	0.98

Table 2
Innovation Districts: Housing and Neighborhood Stability

			Housing			Black + Hispanic Pop Share				
	Innovation Districts	Composite Score	% Incr in Units	% Built since 2010	% Built since 2000	Median Home Val	Median Rent	% Chg Rent	B+H Pop Share 2020	% chg B+H Pop Share 2010-20
						vs.	MSA			
1 2	Rensselaer Tech Park (Albany) Atlanta Tech Square	1.56 1.41	0.87 1.55	8.17 6.09	4.49 1.53	na 1.67	1.57 0.76	0.90 1.08	1.05 0.91	1.02 1.02
3	Pegasus Park (Dallas)	1.22	1.38	1.86	0.79	1.15	0.87	1.01	1.51	1.40
4	Auburn Res & Tech Fdn	0.80	1.10	2.07	1.54	1.02	0.94	0.70	1.08	0.92
5	University Research Park (Madison)	0.49	0.82	3.66	2.40	na	1.00	0.95	1.57	1.01
6	Coldstream Res Campus (Lexington)	0.47	0.98	2.47	2.33	1.02	1.11	1.00	3.00	1.01
7	Lincoln Nebraska Innov Campus Centennial Campus NC State	0.45 0.21	0.96 0.77	1.16 2.39	1.33 1.41	0.49	0.73 0.89	0.70 1.05	1.84 0.74	1.05
8 9	Virginia Tech Corp Res Ctr	0.21	1.01	2.39	2.01	na 1.08	0.89	1.03	1.14	1.10 1.02
10	Fitzsimons Innov Commty (Denver)	0.15	0.88	1.69	1.20	0.61	0.74	0.82	2.53	1.02
11	Cleveland Health-Tech Corridor	0.13	1.00	3.13	2.09	0.91	1.05	1.16	2.06	0.93
12	16 Tech (Indianapolis)	0.07	0.82	2.01	1.38	na	0.97	0.98	3.15	0.96
13	Capitol City Innov (Austin)	0.04	0.86	0.96	1.25	2.10	0.98	0.97	0.75	1.00
	Innov Hub at Res Park (Lubbock)	0.02	0.90	0.95	1.54	1.20	1.06	1.05	0.94	1.05
	Purdue Discovery District	0.01	0.99	1.84	0.63	0.73	0.99	1.14	0.63	1.03
	Discovery Dist (College Park MD)	-0.11	0.85	na	na	na	na	na	1.23	1.20
	Pittsburgh Innovation District	-0.15	0.92	1.71	1.32	1.49	1.30	1.01	1.65	0.96
	Longwood Medical Area (Boston)	-0.16	0.90	1.91	1.64	0.71	0.68	0.95	1.28	0.89
19	Research Park (Champaign)	-0.16	1.02	0.96	0.56	0.75	1.03	1.02	0.79	1.03
20	UH Tech (Houston)	-0.20	0.75	1.65	1.11	na	0.81	1.03	1.48	0.95
21	Uni Tech Park at IIT (Chicago)	-0.24	0.88	1.78	2.40	0.90	0.82	1.23	1.60	0.91
22	ASU Research Park	-0.25	0.76	1.26	0.66	1.36	1.23	0.97	0.49	1.01
23	Cincinnati Innovation District	-0.30	0.80	1.88	0.86	1.02	0.96	1.07	2.41	0.94
24	Towerside Innov Dist (Minneapolis)	-0.41	0.97	0.00	0.55	1.07	0.98	1.05	0.90	1.01
25	University of Utah Research Park	-0.43	0.88	0.22	0.74	1.83	0.97	1.02	0.36	1.02
26	Cortex Dinnov Commty (St. Louis)	-0.44	1.03	0.00	0.31	1.65	1.05	1.06	1.63	0.96
27	Tech Parks Arizona (Tucson)	-0.48	0.83	0.52	0.96	0.57	0.87	1.08	1.83	0.95
28	Gainesville Innovation District	-0.52	0.71	0.19	0.26	0.62	0.96	0.98	0.70	0.98
	Research Triangle Park (NC)	-0.52		na	0.85	1.64	1.11	1.03	0.73	0.98
	KU Innovation Park	-0.56		1.40	0.69	1.05		1.38	1.28	1.04
	Houston Innovation Corridor	-0.59		1.01	0.41	2.59		1.12	0.89	0.92
	Kendall Square (Cambridge)	-0.30		1.90	0.97	1.47	1.53	1.32	1.15	1.02
	Innovation Quarter (Wake Forest)	-0.62		2.21	1.19	1.05	1.03	1.26	1.93	0.92
	PHX Core (Phoenix)	-0.74		1.07	0.33	1.00	0.90	1.20	1.20	0.83
	uCity Square (Philadelphia)	-0.74 -0.94	0.97	0.00	0.36	1.69		1.27	1.24	0.99
30	South Lake Union (Seattle)	-0.94	1.08	na	0.14	0.56	0.33	1.40	0.56	1.00
	Average for 36 Districts		0.93	2.01	1.21	1.17	0.98	1.06	1.34	1.00

### ABOUT THE GEORGE W. BUSH INSTITUTE

The George W. Bush Institute is a solution-oriented nonpartisan policy organization focused on ensuring opportunity for all, strengthening democracy, and advancing free societies. Housed within the George W. Bush Presidential Center, the Bush Institute is rooted in compassionate conservative values and committed to creating positive, meaningful, and lasting change at home and abroad. We utilize our unique platform and convening power to advance solutions to national and global issues of the day. Learn more at bushcenter.org.

### GEORGE W. BUSH INSTITUTE-SMU ECONOMIC GROWTH INITIATIVE

The Bush Institute-SMU Economic Growth Initiative combines the public policy expertise of the George W. Bush Institute and the academic expertise of SMU. The joint initiative draws from economic policy-making experience at the highest levels and from cutting edge academic research to identify ideas for promoting innovation, entrepreneurship, and faster, more inclusive growth through global competitiveness and sound immigration policy.





**BUSHCENTER.ORG**