2018

DOWNTOWN OFFICE STORY

EOY 2017 Market Analysis

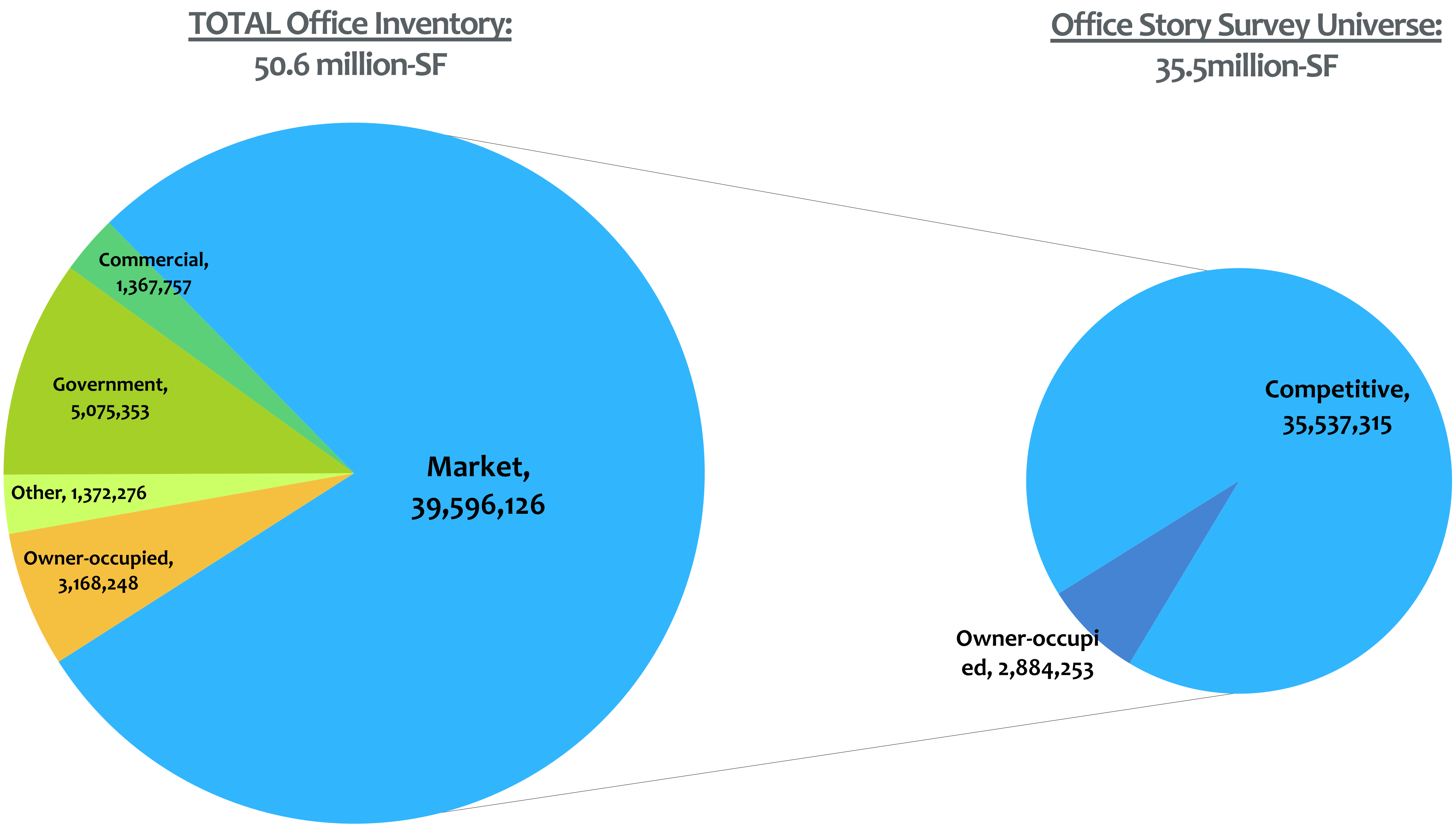
Central Houston

Background

- This is the 34th year of this analysis with this methodology.
- This survey supplements, and does not replace other traditional market surveys: broker, owner, or third-party reports.
- It provides unique insight on the current competitive leasing environment based on analysis of primary data. The results ***assist owners, leasing agents and potential investors make strategic marketing and investment decisions***.
- Buildings in the survey universe have proven the ability to compete for tenants in the downtown Class A and B markets (henceforth classified as Tiers 1, 2 and 3)

Background: Office Inventory

- The survey universe includes only competitive office buildings; it does not include owner-occupied buildings



*The '**Competitive**' space excludes 800 Bell

Survey Universe

- The survey universe includes only competitive office buildings; it does not include owner-occupied buildings

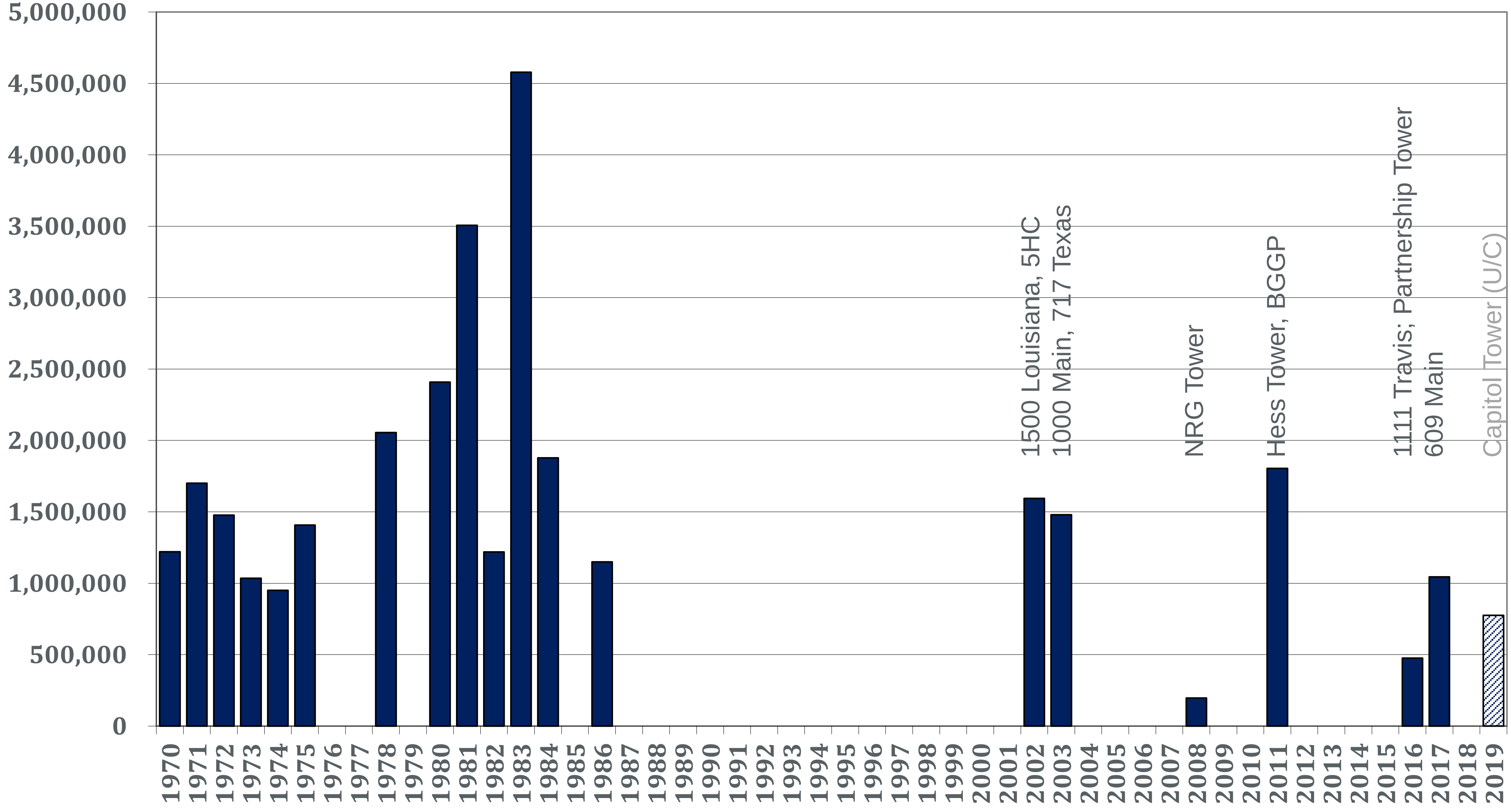
		# of Bldgs	Rentable SF
Class A	Tier 1	11	11,255,565
	Tier 2	13	14,274,347
Class B	Tier 3	22	10,007,403
	Total	46	35,537,315

Not included: 1500 Louisiana, 1400 Smith, 1111 Travis and Partnership Tower (all owner occupied); 800 Bell

OFFICE

Building Deliveries

Square Feet Built per Year



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Building Renovations: Since 2000

Central Houston

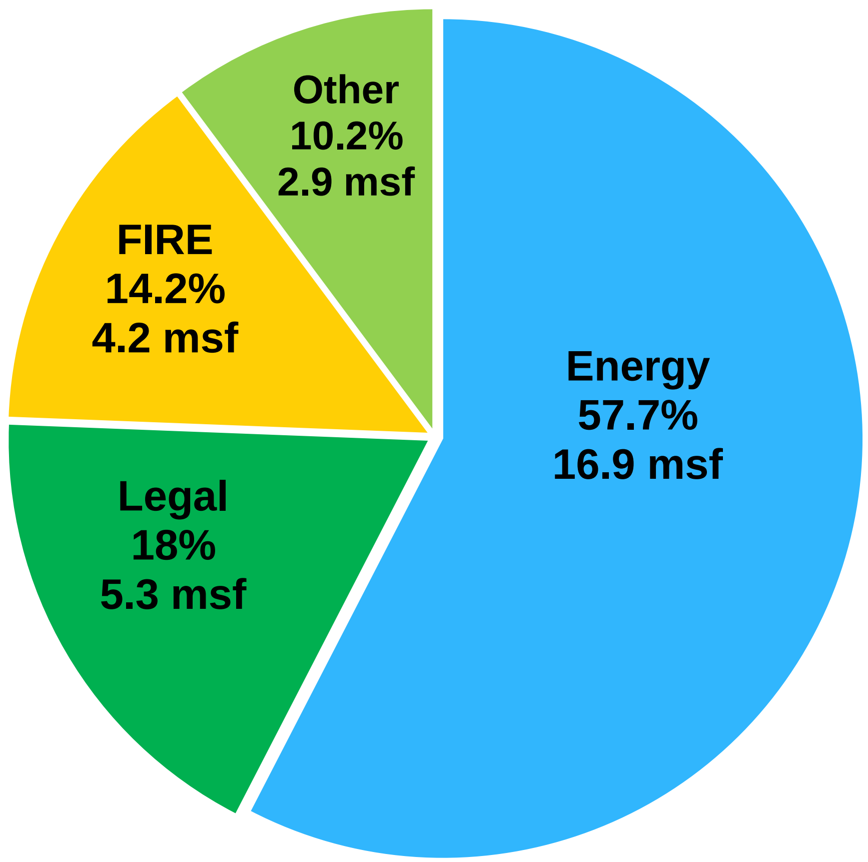
Building	Year		Year
Heritage Plaza	2000		2009
1001 McKinney	2000		2015
Bank of America Center	2001		2018
The Jones on Main – 708 Main	2002		2017
The Jones on Main – 712 Main	2002		2017
The Shops at Houston Center	2004		
1001 Fannin (First City Tower)	2005		
500 Jefferson	2005		
919 Milam	2007		2012
GreenStreet - 1201 Fannin / NRG Tower	2008		2016
1301 Fannin	2009		
801 Louisiana	2009		
One City Centre (1021 Main)	2010		
Kinder Morgan Tower	2011		
601 Travis	2011		
600 Travis (JP Morgan Chase Tower)	2012		
One Shell Plaza (910 Louisiana)	2012		
Pennzoil Place	2013		
Esperson	2014		2016
811 Louisiana / Two Shell	2015		
1000 Main	2016		
Lyric Center	2016		2017/8
1415 Louisiana	2016		
1801 Smith (formerly 600 Jefferson)	2017		
One Allen - Motiva Plaza	2018		
LyondellBasell Tower	ongoing		
2 Houston Center	ongoing		
Fulbright Tower	ongoing		
4 Houston Center	ongoing		
5 Houston Center	ongoing		
Two Allen	planned		
Three Allen	planned		

Flight to quality

Office Space Use by Industry

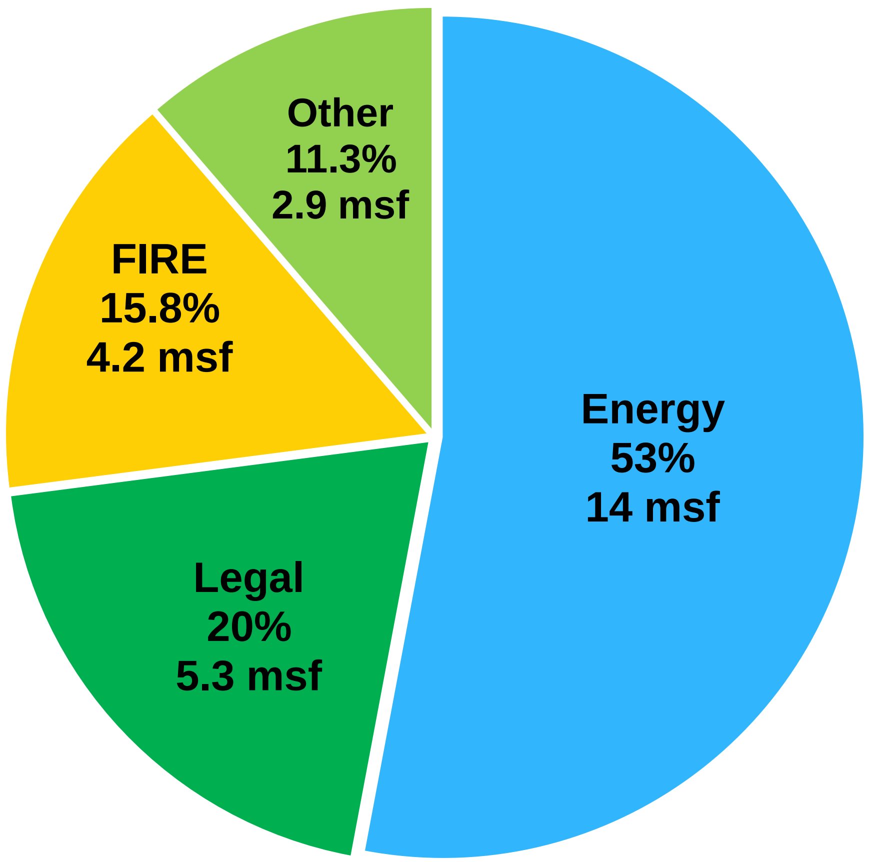
As of 1/1/2018

Including owner-occupied buildings



- **29.3 million sf of *leased* space in downtown's Class A and B office buildings.**
- **Owner-occupied buildings included here: 1500 Louisiana, 1400 Smith, 1111 Travis, Partnership Tower**

Properties in the survey universe



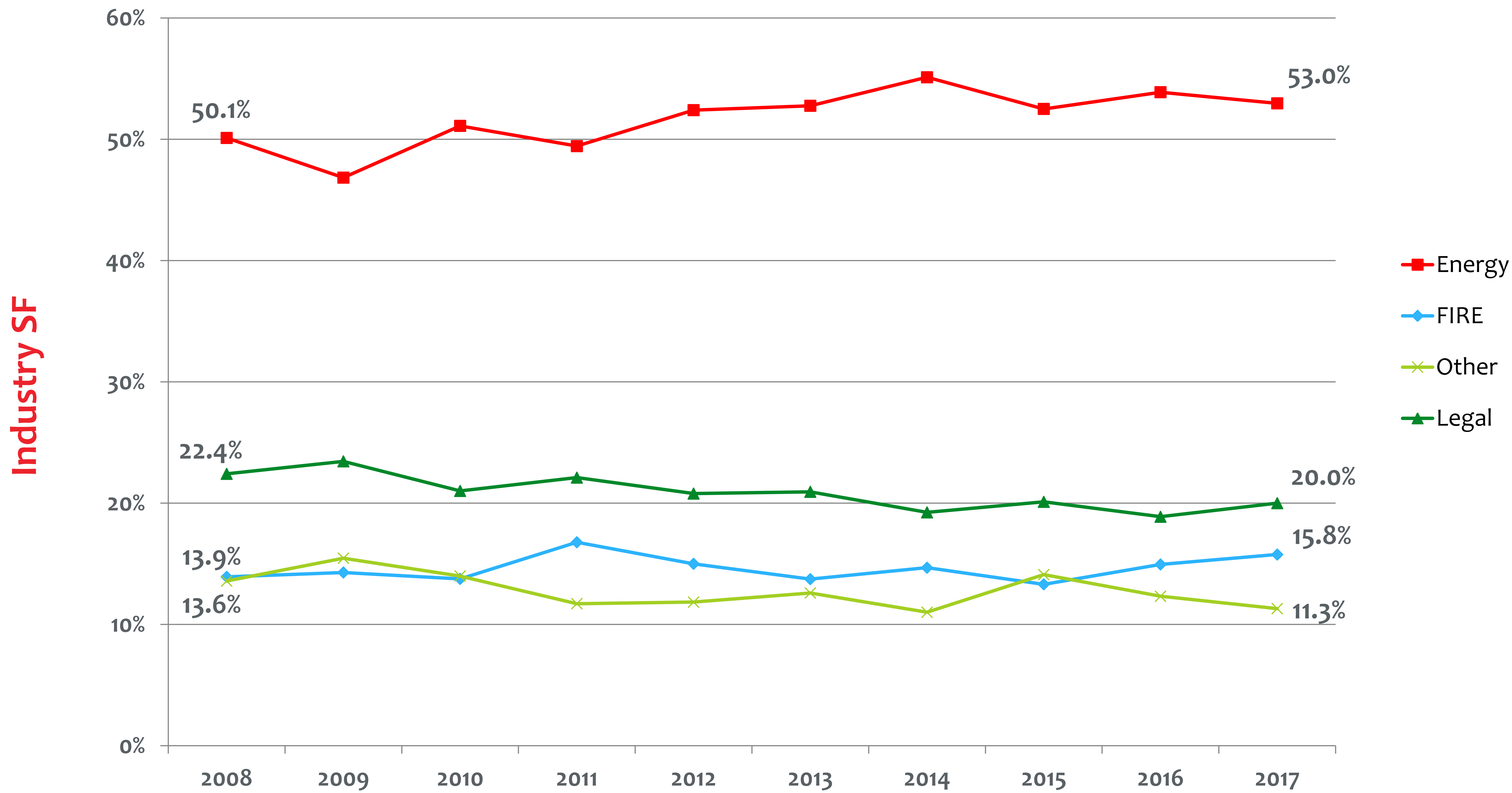
- **26.4 million sf of *leased* space in downtown's Class A and B office buildings.**
- **Excludes owner-occupied buildings**

- Energy includes exploration and production, pipelines, utilities, chemical companies, and service companies such as KBR.
- FIRE = Finance, Insurance, Real Estate
- "Other" includes companies such as Waste Management and United Airlines

Trends in Office Building Use by Industry

CentralHouston

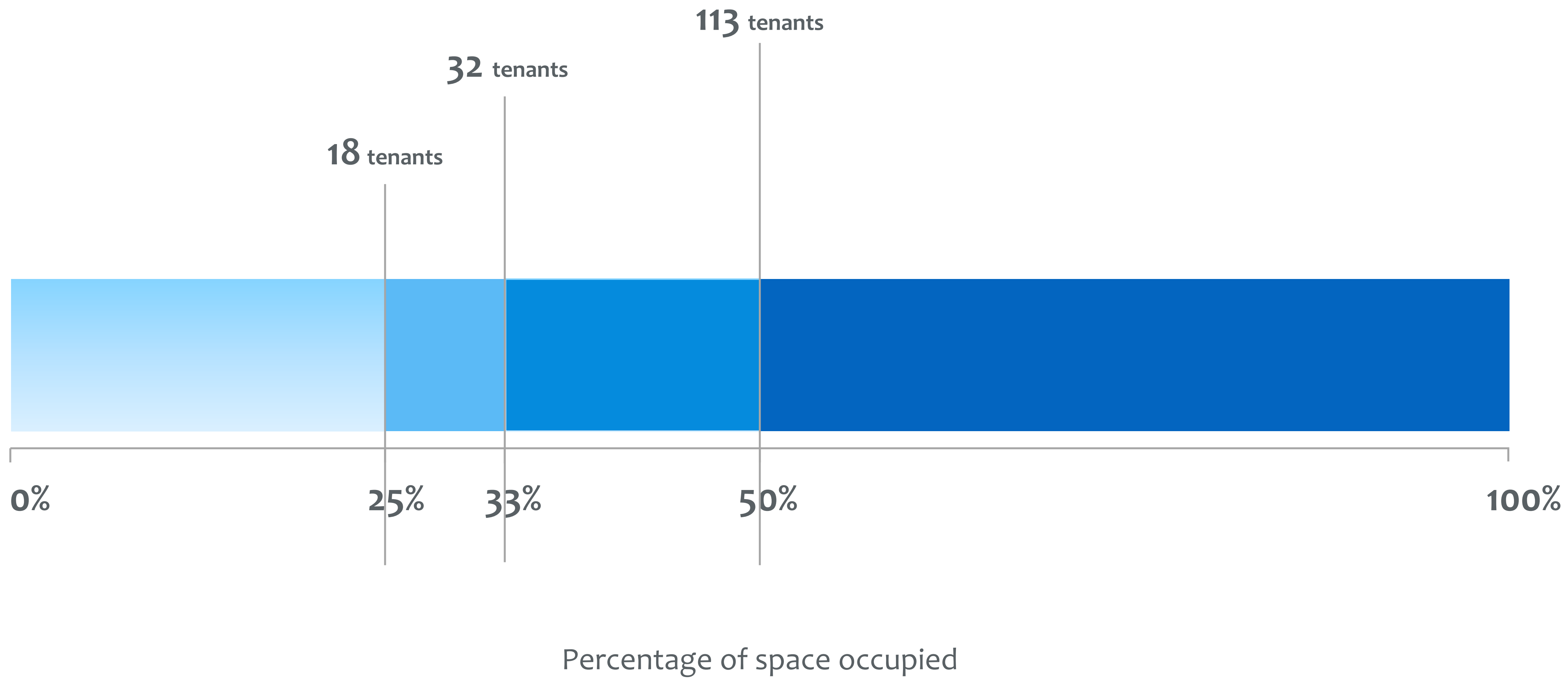
Properties in the Survey Universe, 2008 - 2017



Large Tenants in Building Universe

Central Houston

Tenants by % of space occupied



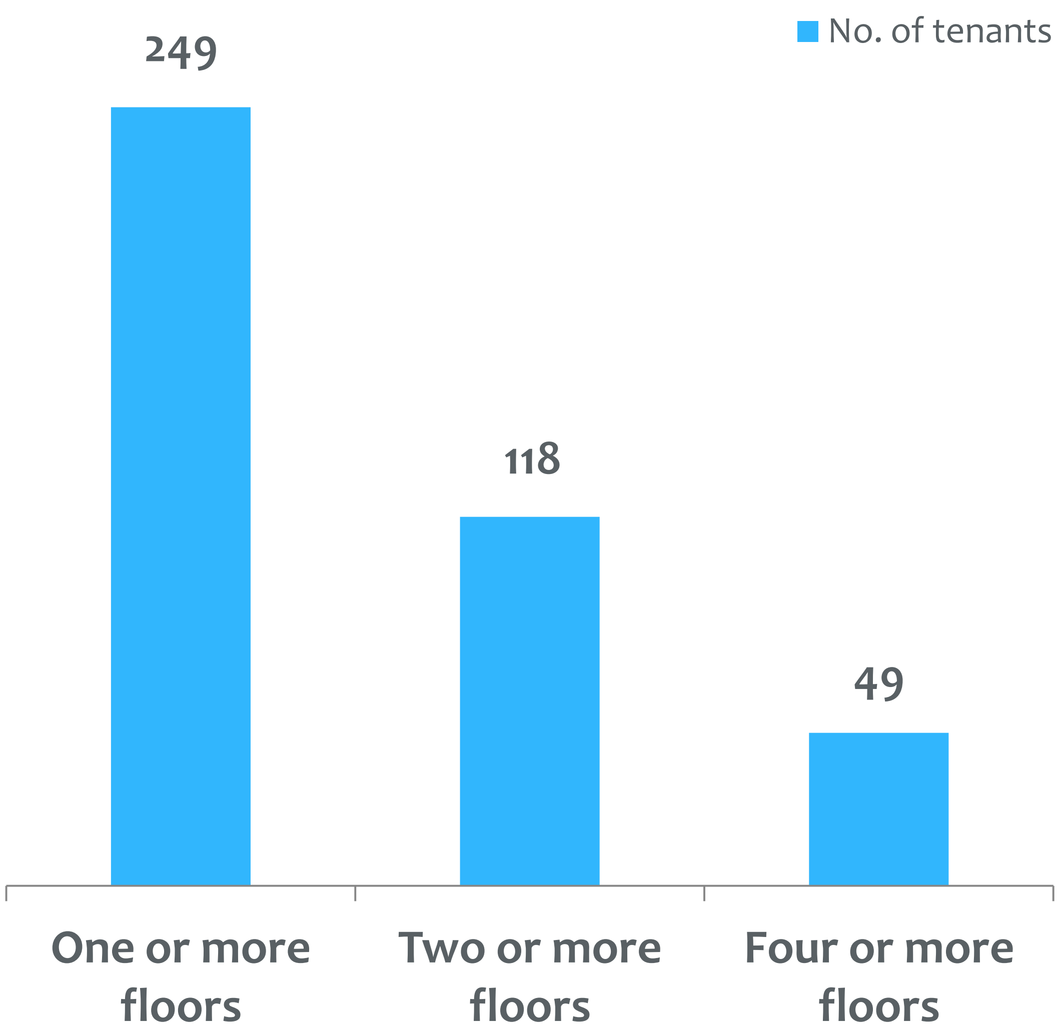
18 tenants occupied 25 percent of the space in 2017, up from 14 tenants in 2016

32 tenants occupied 33 percent of the space in 2017, up from 26 tenants in 2016

113 tenants occupied 50 percent of the space in 2017, up from 78 tenants in 2016

Large Tenants in Building Universe

Tenants by number of floors

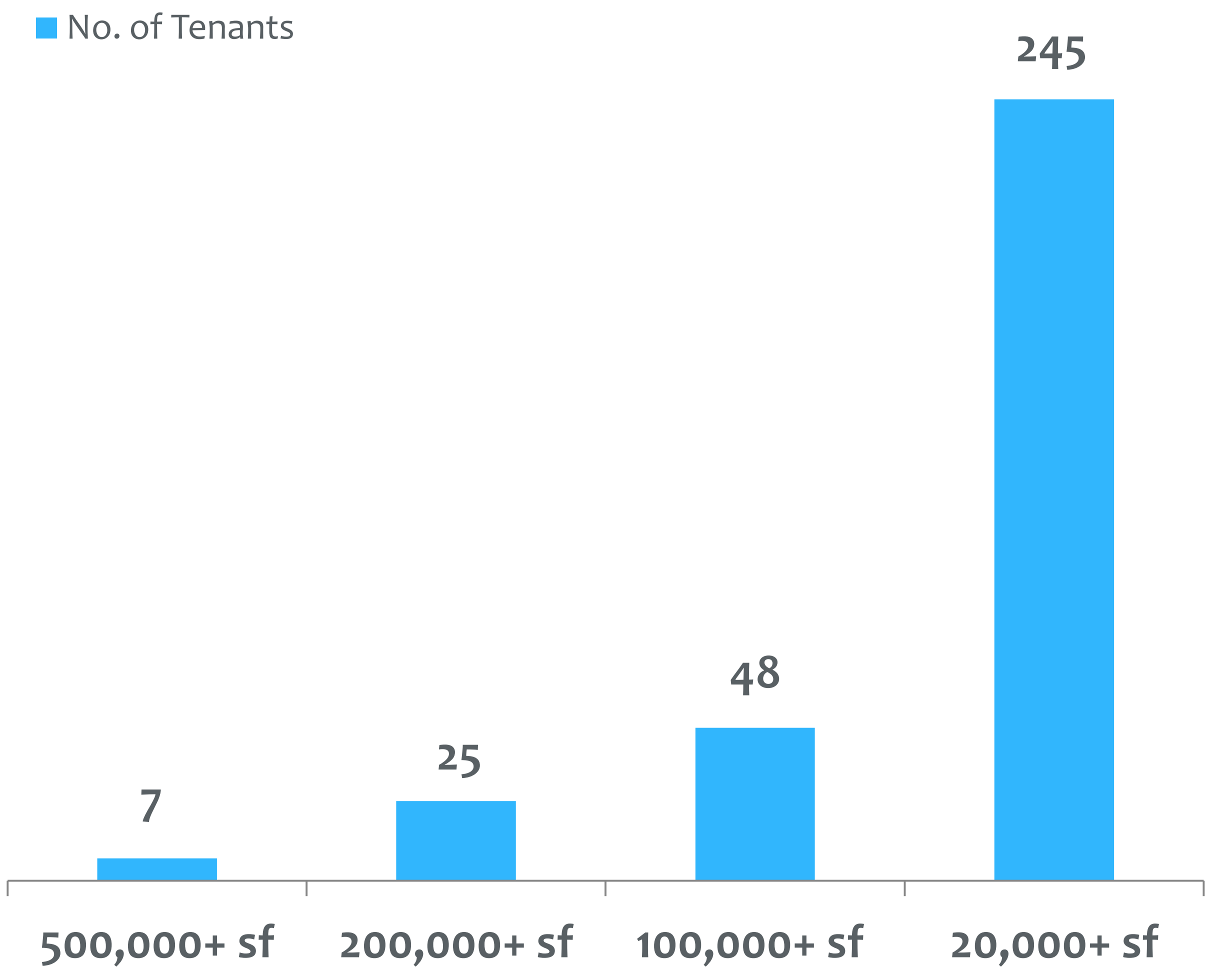


249 tenants occupied one or more floors (down from 305 tenants the year prior)

118 tenants occupied two or more floors (down from 134 tenants the year prior)

49 tenants occupied four or more floors (down from 65 tenants the year prior)

Tenants by square footage



7 tenants occupied 500,000-SF or more (up from 6 tenants the year prior)

25 tenants occupied 200,000-SF or more floors (down from 26 tenants the year prior)

48 tenants occupied 100,000-SF or more floors (down from 53 tenants the year prior)

245 tenants occupied 20,000-SF or more floors (up from 239 tenants the year prior)

Large Tenants in Building Universe

Summary

Tenants by number of floors	
One or more floors	249
Two or more floors	118
Four or more floors	49
Tenants by square footage	
20,000+ sf	245
100,000+ sf	48
200,000+ sf	25
500,000+ sf	7
Tenants by % of survey universe	
25%	18
33%	32
50%	113

Excludes: 1500 Louisiana, 1400 Smith, 1111 Travis , and Partnership Tower (all owner occupied); 800 Bell

Summary Data

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	Year Ending 2017	Year Ending 2016
Survey Universe	35,537,315	34,774,128
Space Being Marketed (**Direct**)	7,758,499	6,216,888
Percent Being Marketed (**Direct**)	21.8%	17.9%
Space Being Marketed (**Sublease**)	1,819,523	2,649,038
Percent Being Marketed (**Sublease**)	5.1%	7.6%
Total Space Being Marketed	**9,578,022**	**8,865,926**
Percent Being Marketed (Total)	**27%**	**25.5%**
Leases Signed (Direct)	**4,720,602**	**3,630,283**
Change in Space Being Marketed (Direct)	(591,933)	(1,108,553)

Definitions – Availability

- **Space Being Marketed / Available**: Any office space being marketed, even if occupied and leased. If it is being marketed, it is competing against other space.

- **Availability rate**: Direct office space being marketed divided by the total amount of office space in this survey universe.

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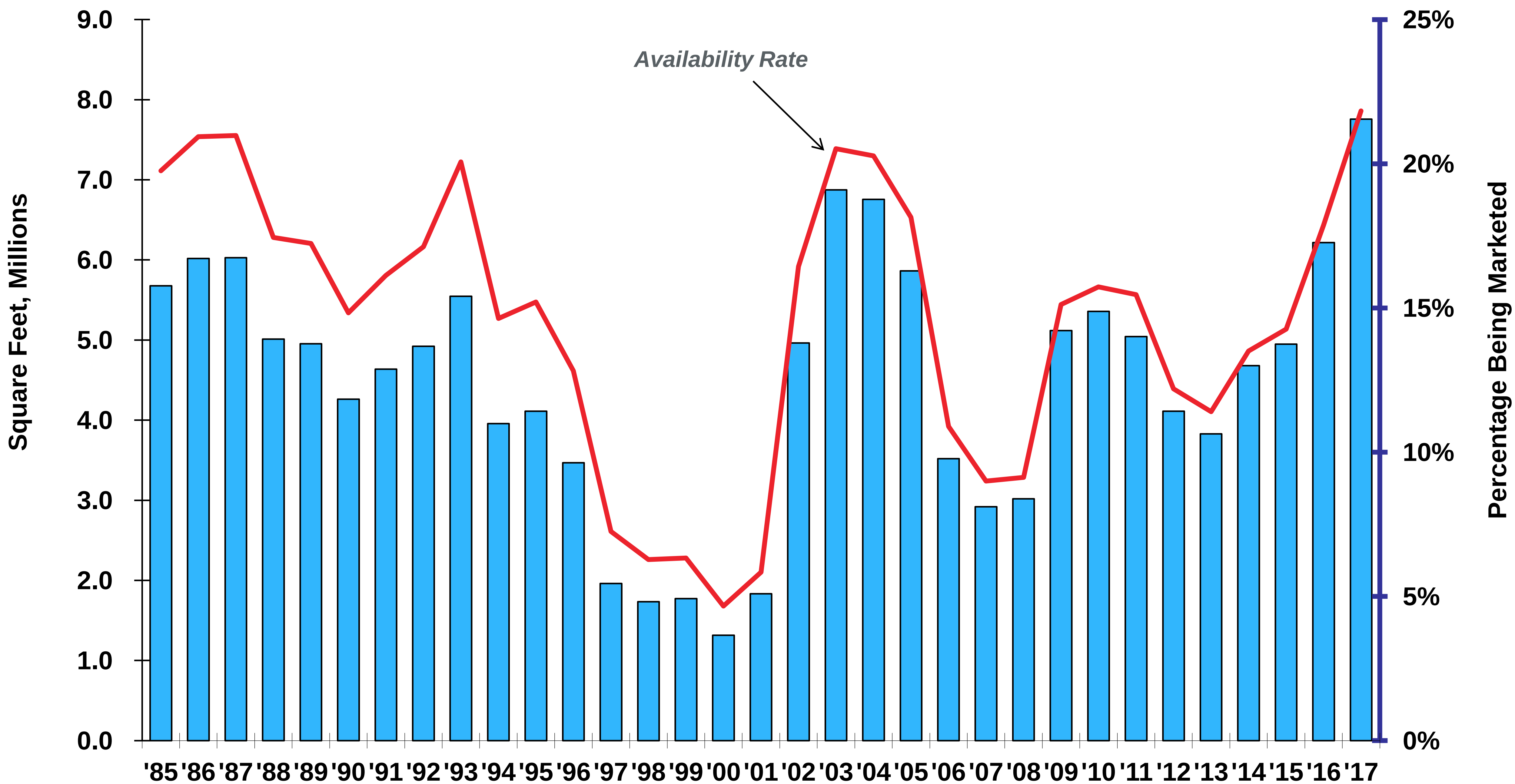
Historical Space Being Marketed, *By Size/Year*

As of 1/1/18



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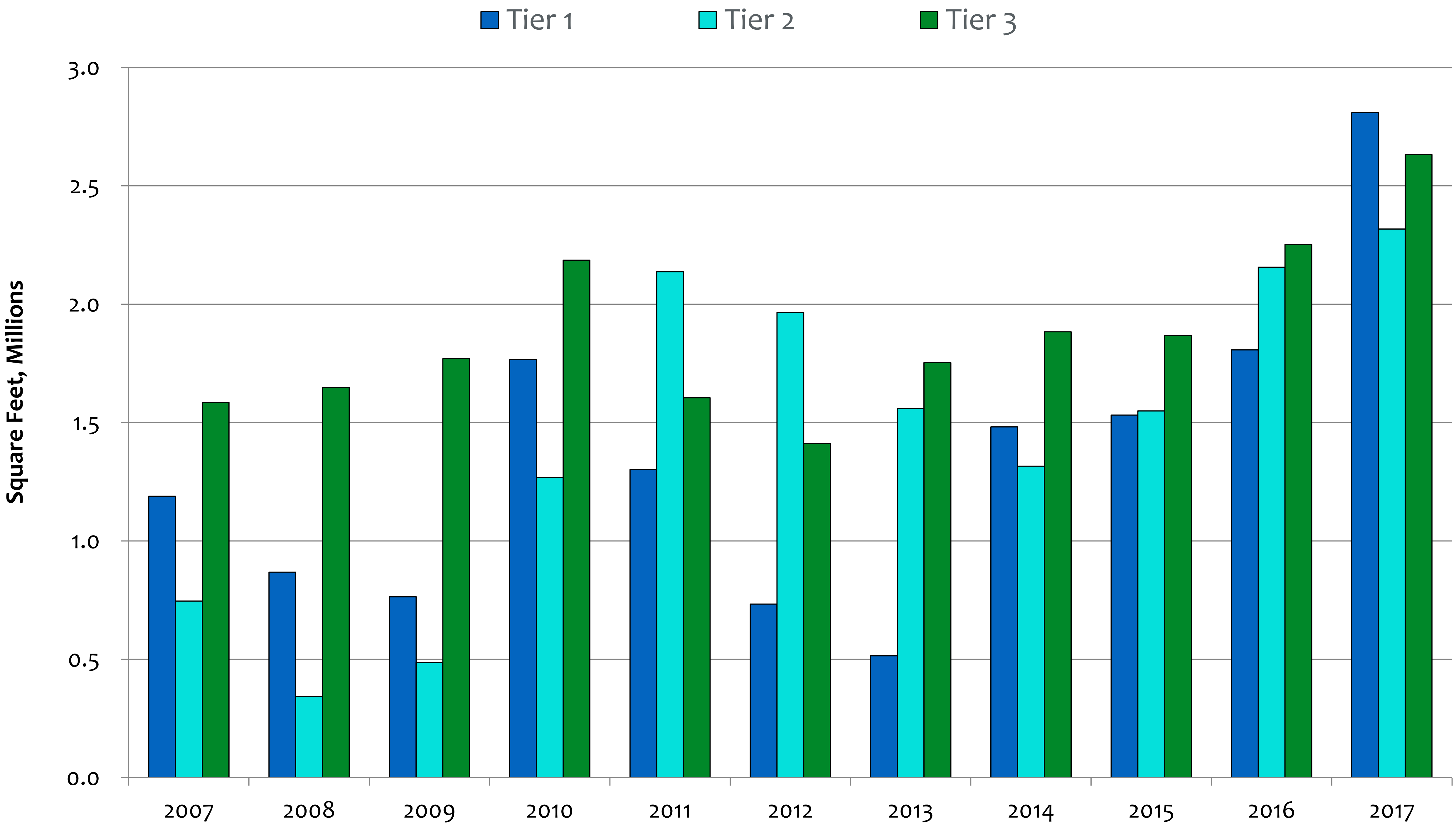
Historical Space Being Marketed, *By Tier*



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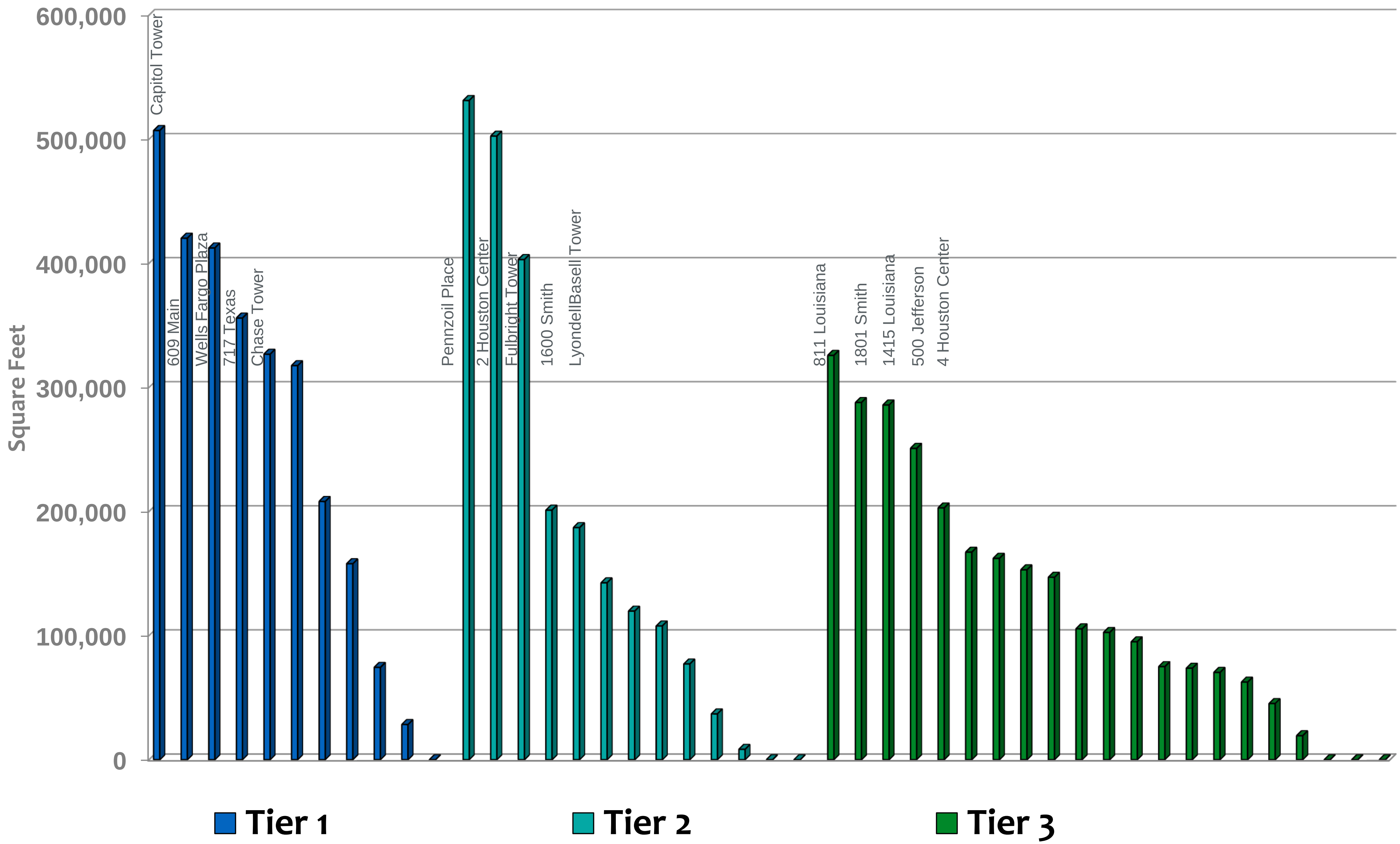
Space Being Marketed by Building

As of 1/1/2018



DIRECT & SUBLEASE SPACE

Contiguous Space

As of 2/15/2018

CentralHouston

Tier	Building	Floors	SF	Avail	Former Tenant
1	Capitol Tower	12, 20-34	493,596	Immed.	New
1	717 Texas	16-28	355,908	Immed.	Freeport McMoRan
2	2 Houston Center	4-10, 14-15	326,633	Immed.	Shell + Argent
2	Pennzoil - North Tower	6-12, 25-26, 28-36	325,239	Immed.	Freeport + new
1	Wells Fargo Plaza	2-3, 30-35, 43-46, 62-63	313,727	Immed.	Gardere
1	609 Main	24-34	312,589	Immed.	New
2	1100 Louisiana	25-34, 36-38	294,759	Immed.	Enbridge
2	One Shell Plaza	27-31, 41-46	279,656	Immed.	Shell
3	811 Louisiana	10-17	252,363	Immed.	Shell
3	1801 Smith	4-5, 11-19	235,542	Immed.	United Airlines
3	500 Jefferson	3-13	213,665	Immed.	KBR
1	600 Travis	8-11, 18-20, 22-24	212,900	Immed.	Winstead/ Kirkland & Ellis
3	1201 Fannin – NRG	3-11	204,631	11/1/2018	NRG
3	1415 Louisiana	18-20, 25-26, 29-32, 37-38	181,243	Immed.	Eagle Rock, Sabine, and other
2	Fulbright Tower	25-27, 38-39,41-42	177,551	Immed.	Norton Rose / Pulse Network LLC
1	5 Houston Center	21, 23-27 [P25]	174,039	Immed.	McKinsey, QEM + new
2	1600 Smith	9-12, 15-16, 48-49	163,251	Immed.	United Airlines
1	Bank of America Center	4-6, 18-19, 51-52	157,004	10/2019 (BOA)/ Immed.	Bank of America/ Piper Jaffrey
1	1000 Main	19-23	144,394	Immed.	Shell/ Gen On (formerly Reliant)
3	919 Milam	6-7, 12-13, 16-17	132,664	Immed.	Valerus + new
2	Kinder Morgan Tower	20-23	125,793	Immed.	EP Energy
1	Hess Tower	6-9	123,975	Immed.	Hess
3	KBR Tower (601 Jefferson)	6-10	123,040	Immed.	KBR
3	Total Plaza	11-15	121,005	Immed.	Hilcorp
1	LyondellBasell Tower	26-27, 38-40	119,586	Immed.	Merrill Lynch
2	Pennzoil - South Tower	7-11	103,187	Immed.	Gensler + new
		TOTAL:	5,667,940		

CentralHouston

Full-Floor Sublease Spaces

With term as of 3/7/2018

Tier	Building	Description	Exp	SF
2	1100 Louisiana	25-34, 36-38 (Enbridge)	Apr. 2025	294,759
3	1201 Fannin – NRG Tower	3-11 (NRG)	Dec. 2020	204,631
2	One Shell Plaza	41-46 (Shell)	Dec. 2025	153,832
2	Kinder Morgan Tower	20-23 (EP Energy)	Aug. 2025	125,793
1	Hess Tower	6-9 (Hess)	Jun. 2026	123,975
3	KBR Tower (601 Jefferson)	6-10 (KBR)	Jun. 2030	123,040
3	919 Milam	6-7, 9, 12-13 (Valerus Compression)	Jun. 2023	109,185
3	1300 Main	6-9 (NRG Energy)	Dec. 2020	84,644
1	Heritage Plaza	14-15 (Rosetta Resources)	Aug. 2023	53,389
3	1301 Fannin	14-15 (Exxon)	Oct. 2019	51,968
2	Three Allen Center	24-25 (Oiltanking)	Jan. 2020	48,560
2	Three Allen Center	3, 6 (Devon)	Jan. 2020	41,951
1	1000 Main	31 (Shell)	Dec. 2025	29,675
2	1001 Fannin	28 (Vinson & Elkins)	Oct. 2021	28,065
2	Two Allen Center	5 (Devon)	Jan. 2020	27,759
1	Wells Fargo Plaza	39 (McDermott)	Aug. 2018	25,580
1	600 Travis	24 (Locke Lord)	Jan. 2027	21,588
2	1100 Louisiana	55 (Vitol)	Apr. 2021	19,491
			TOTAL:	**1,567,885**

CentralHouston

Full-Floor Sublease Spaces

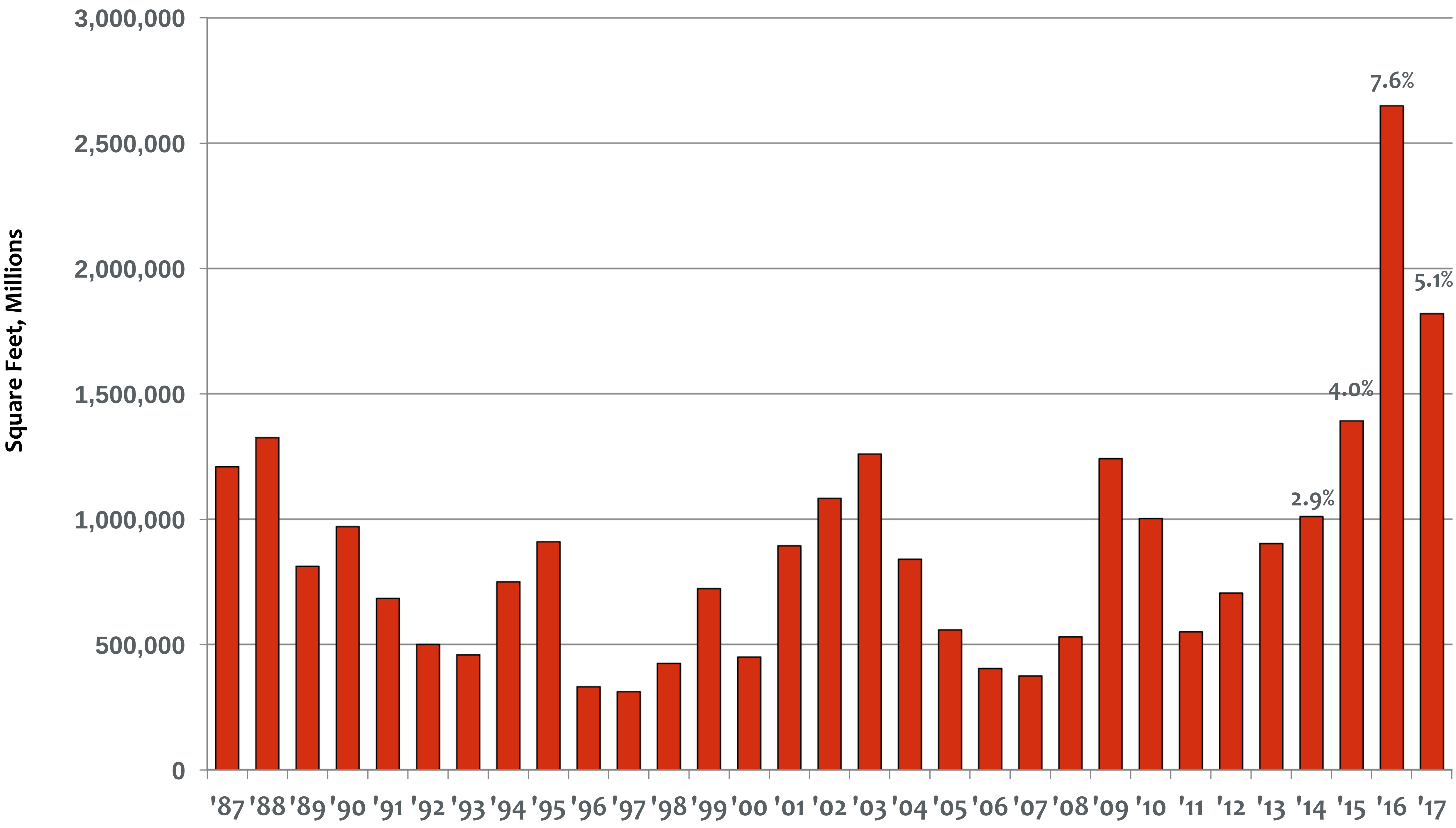
Sorted by Termination date, with term as of 3/7/2018

Tier	Building	Description	SF	Exp
1	Wells Fargo Plaza	39 (McDermott)	25,580	Aug. 2018
3	1301 Fannin	14-15 (Exxon)	51,968	Oct. 2019
2	Two Allen Center	5 (Devon)	27,759	Jan. 2020
2	Three Allen Center	24-25 (Oiltanking)	48,560	Jan. 2020
2	Three Allen Center	3, 6 (Devon)	41,951	Jan. 2020
3	1201 Fannin – NRG Tower	3-11 (NRG)	204,631	Dec. 2020
2	1100 Louisiana	55 (Vitol)	19,491	Apr. 2021
2	1001 Fannin	28 (Vinson & Elkins)	28,065	Oct. 2021
3	919 Milam	6-7, 9, 12-13 (Valerus)	109,185	Jun. 2023
1	Heritage Plaza	14-15 (Rosetta Resources)	53,389	Aug. 2023
2	1100 Louisiana	25-34, 36-38 (Enbridge)	294,759	Apr. 2025
2	Kinder Morgan	20-23 (EP Energy)	125,793	Aug. 2025
2	One Shell Plaza	41-46 (Shell)	153,832	Dec. 2025
1	1000 Main	31 (Shell)	29,675	Dec. 2025
1	Hess Tower	6-9 (Hess)	123,975	Jun. 2026
1	600 Travis	24 (Locke Lord)	21,588	Jan. 2027
3	KBR Tower (601 Jefferson)	6-10 (KBR)	123,040	Jun. 2030
			TOTAL:	**1,567,885**

Central Houston

Historical Sublease Available

As of 1/1/18



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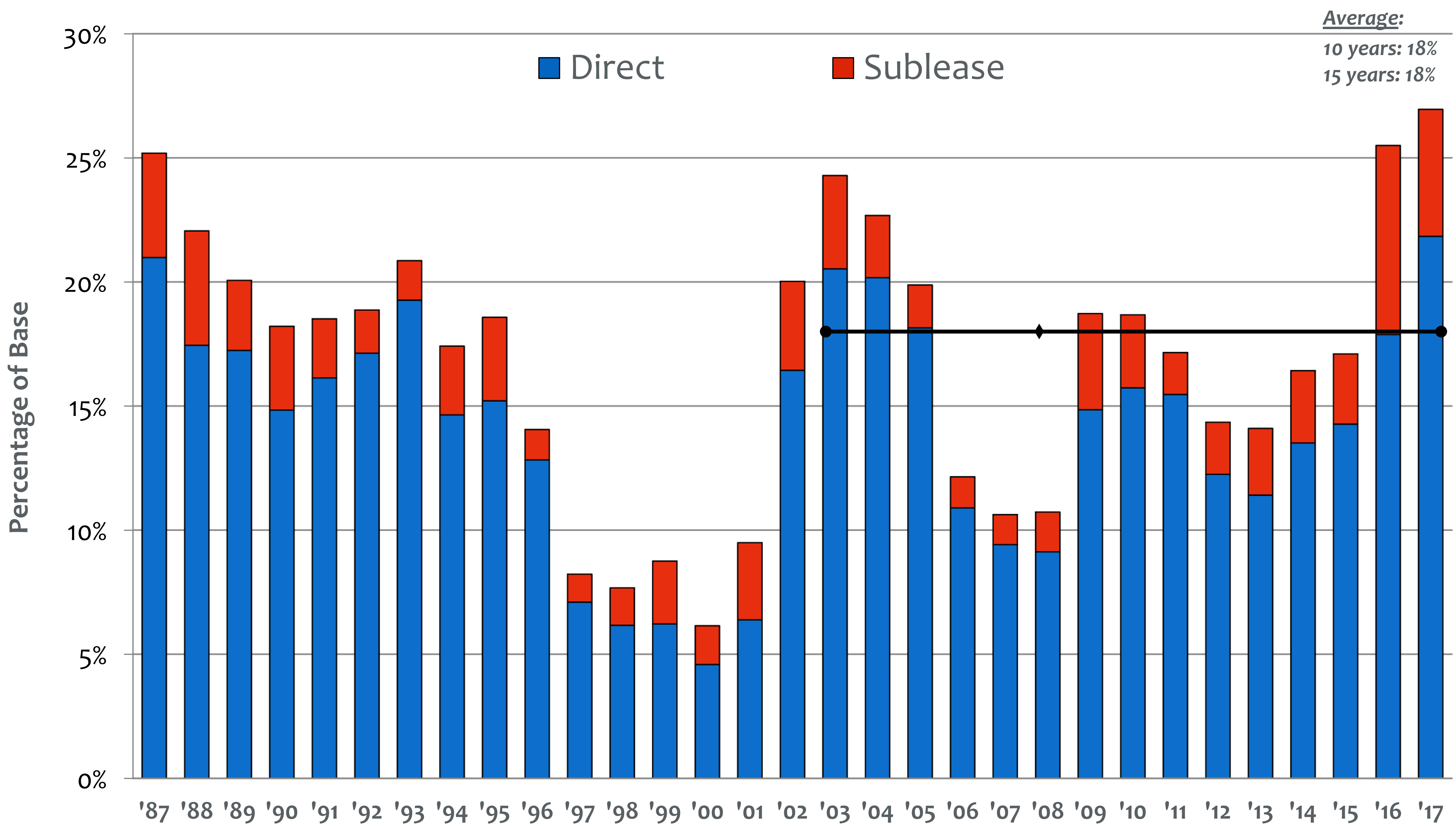
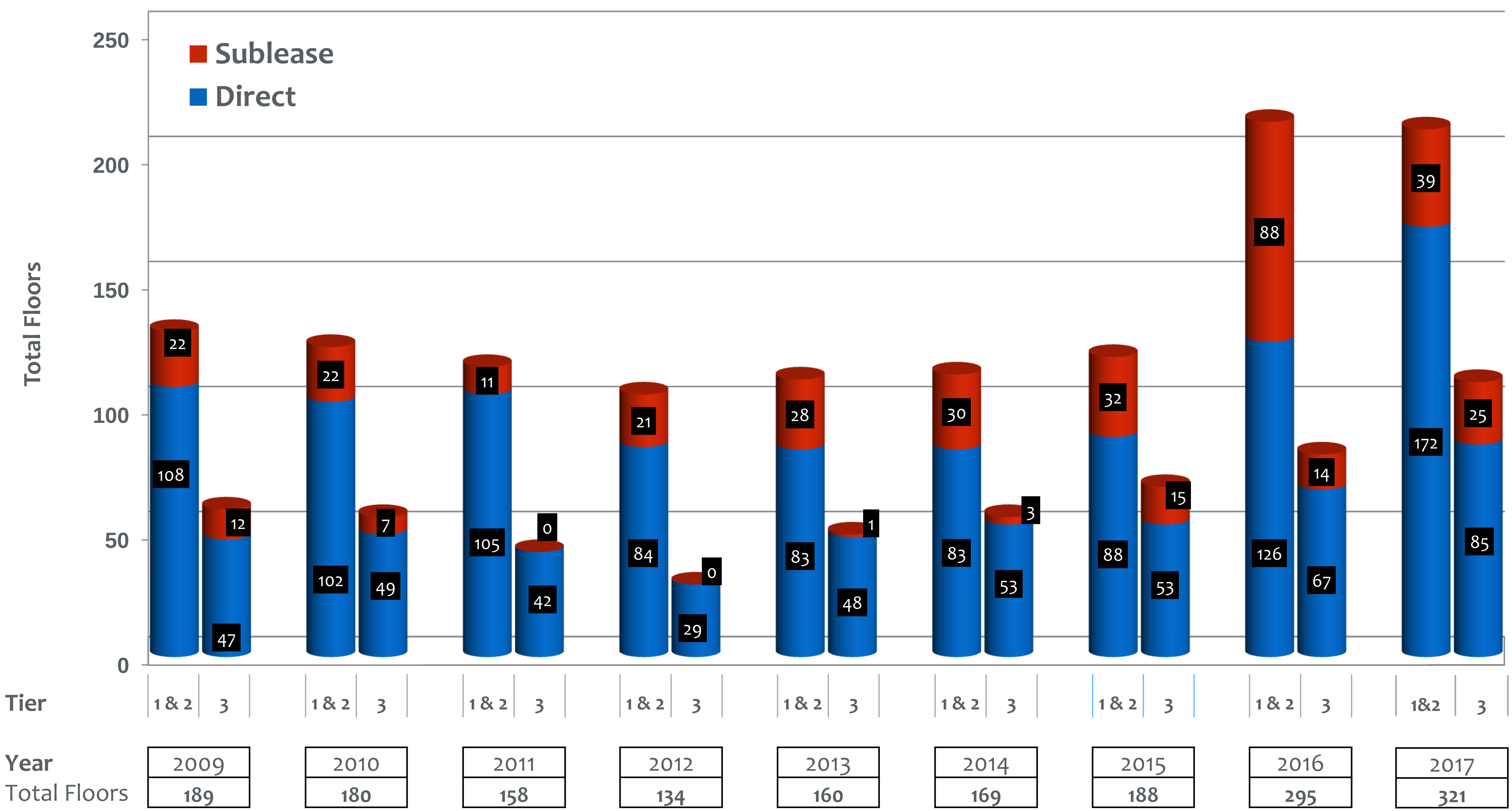
Historical Space Being Marketed



DIRECT & SUBLEASE SPACE

Full Floors Available

As of 1/1/2018



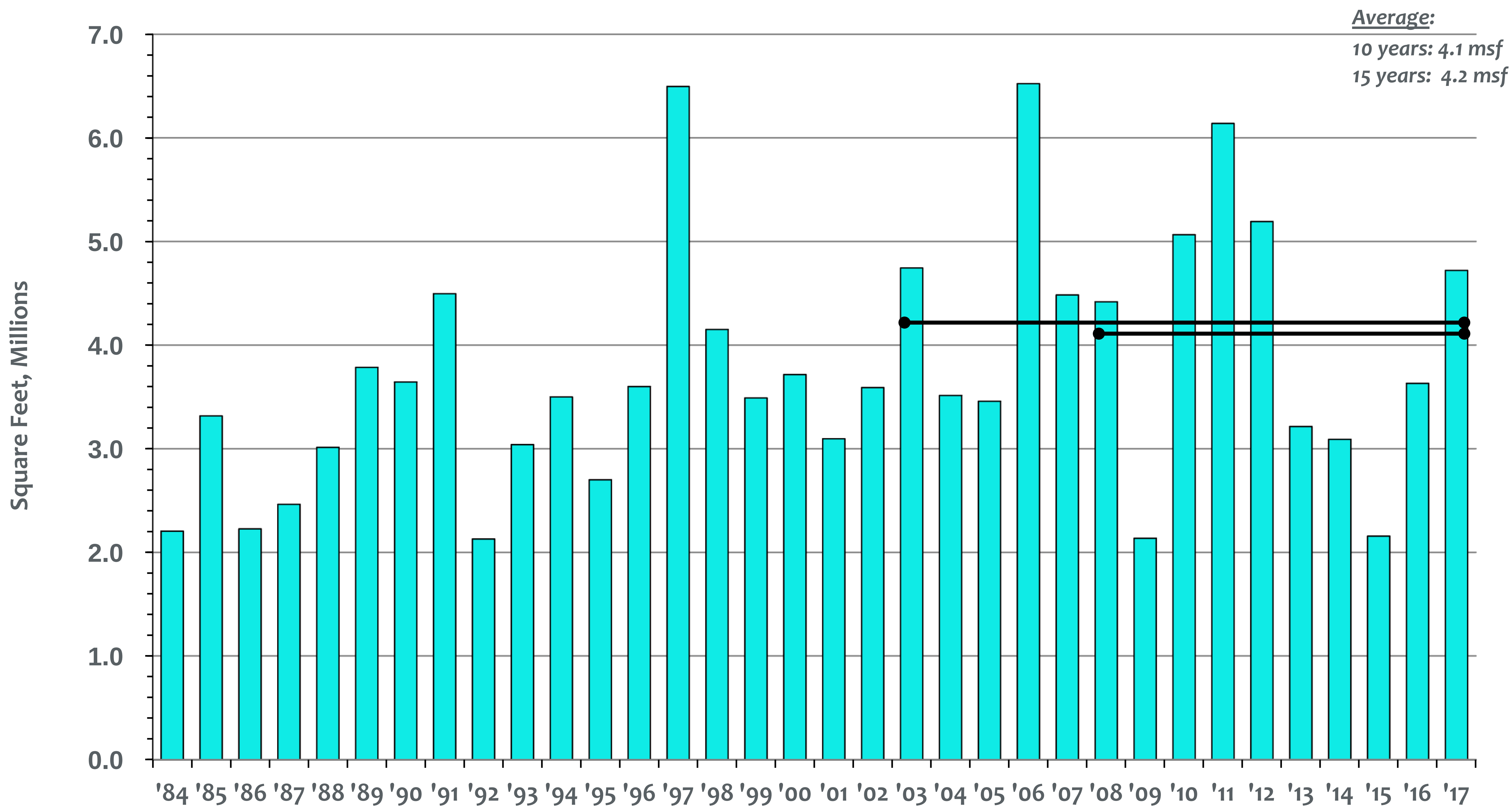
Definition – Leasing Activity

- Any lease signed during the year, no matter when occupancy is to take place.

    - CoStar's definition: "The volume of square footage that is committed to and signed under a lease obligation for a specific building or market in a given period of time. It includes direct leases, subleases and renewals of existing leases. It also includes any pre-leasing activity in planned, under construction or under renovation buildings."

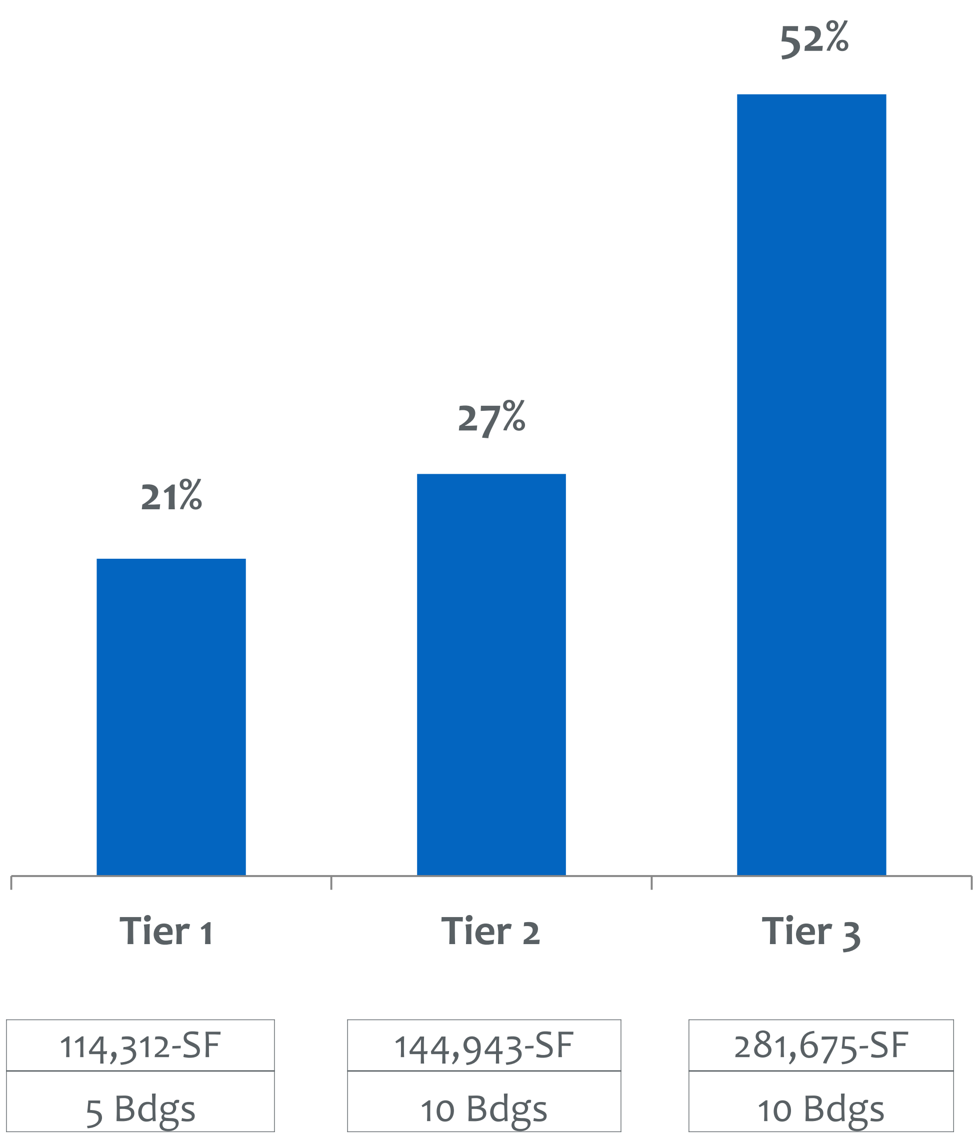
Historical Leasing Activity

In millions of SF

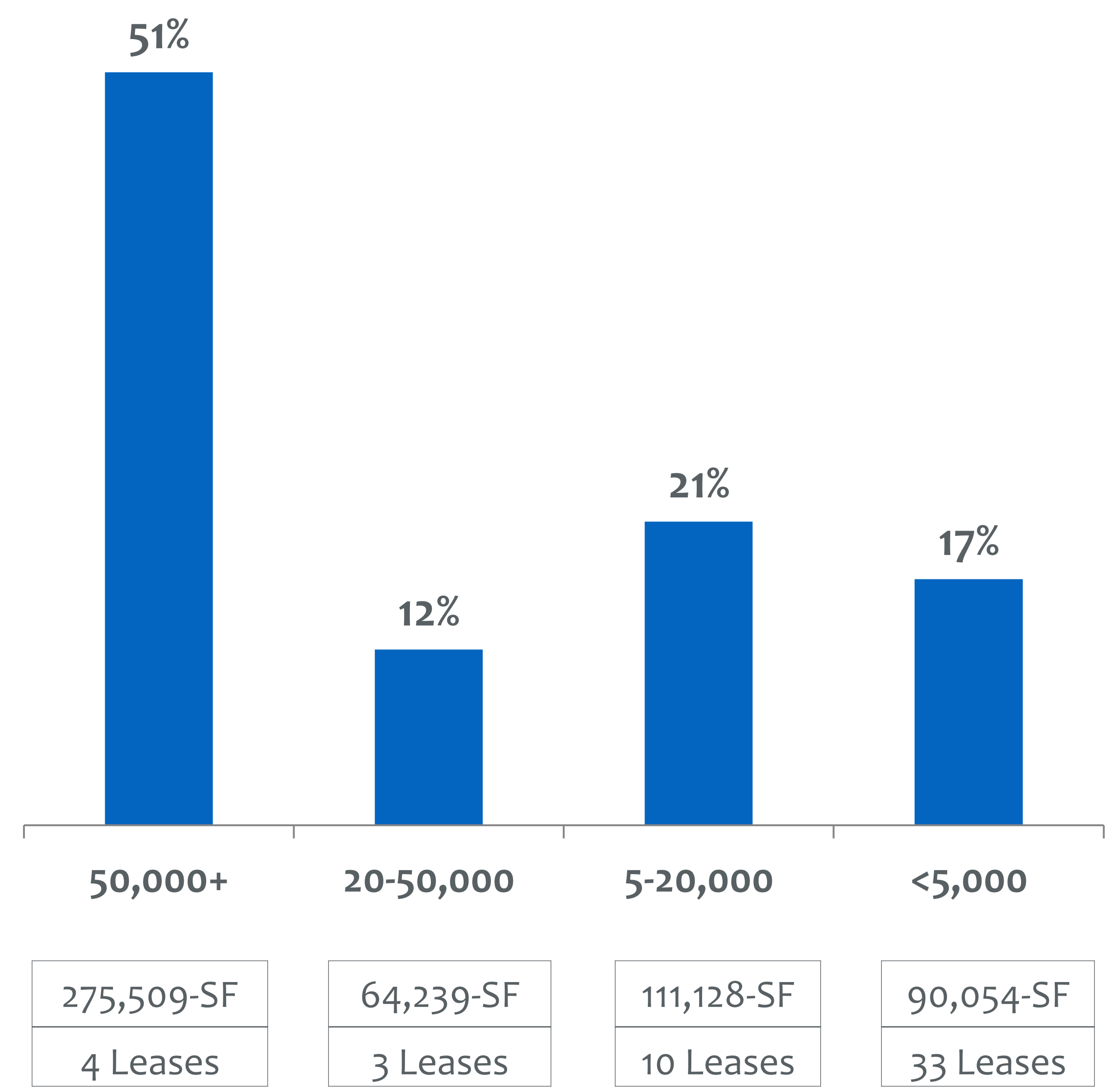


New to Downtown Tenants

By Tier

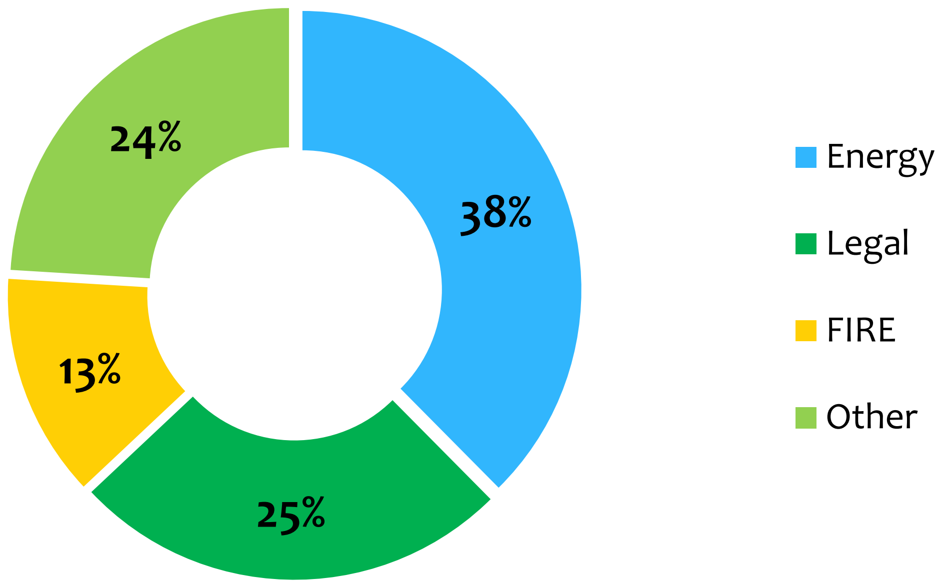


By Square Footage

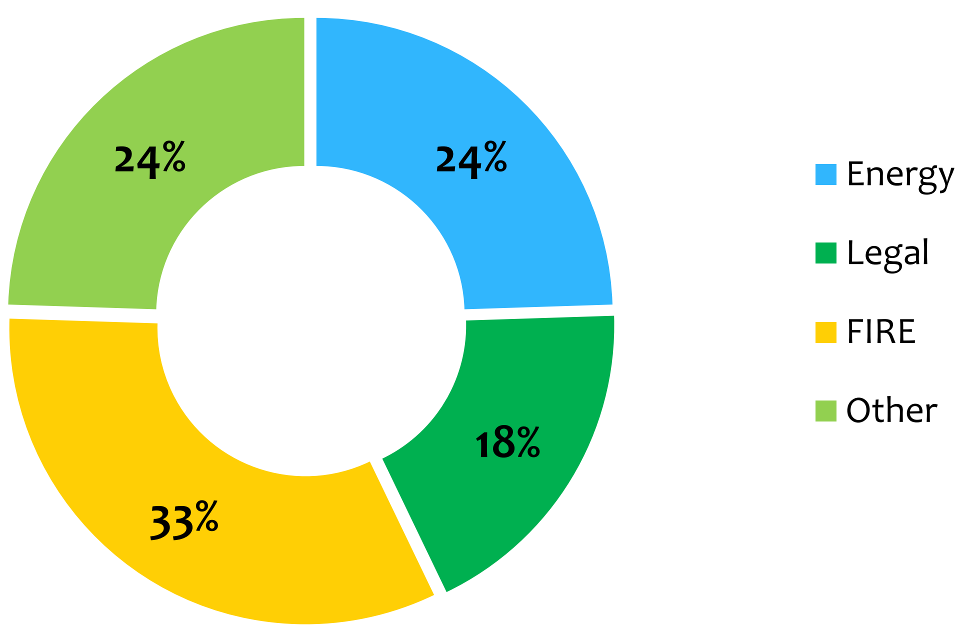


New to Downtown Tenants

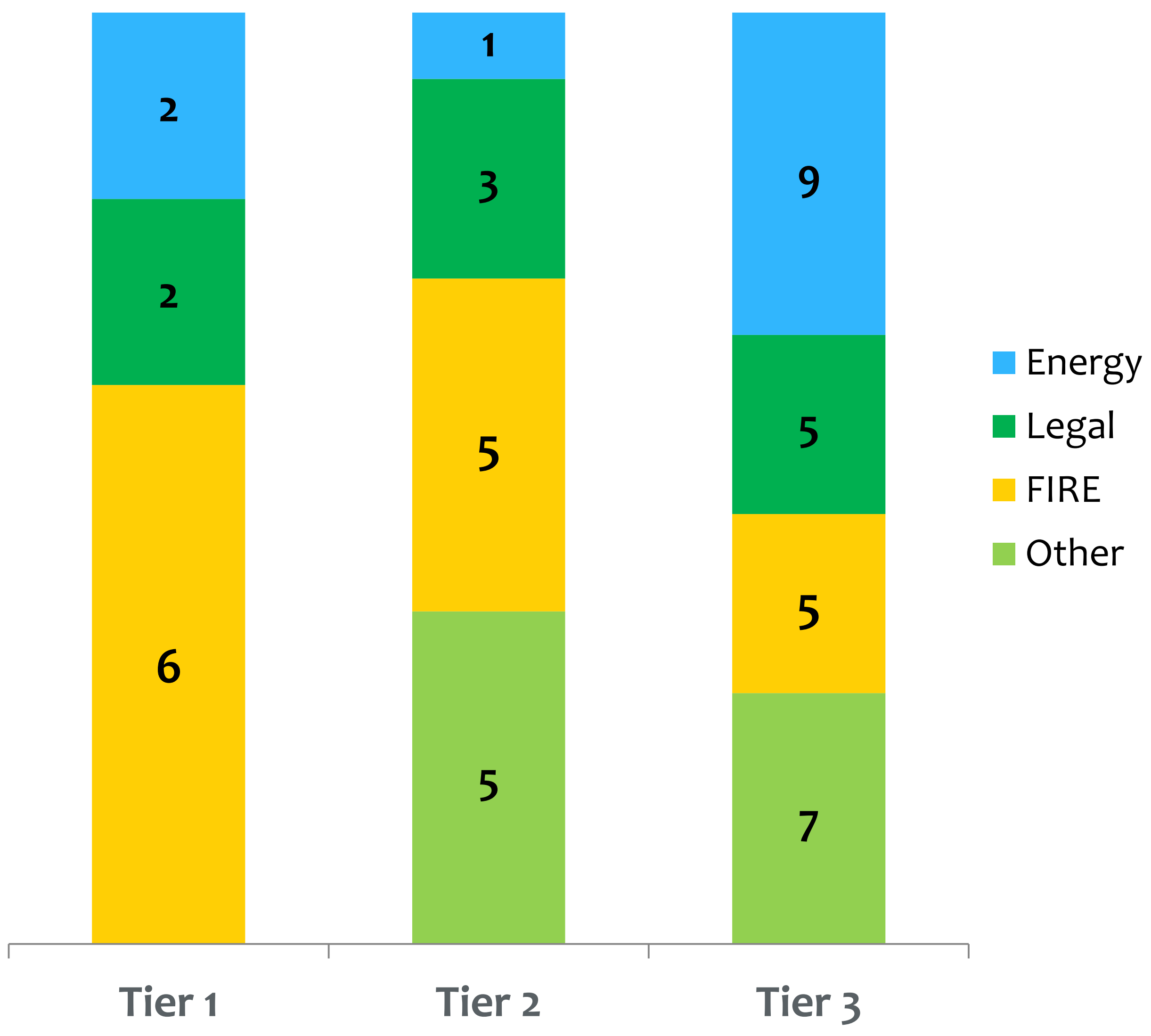
SF by Industry



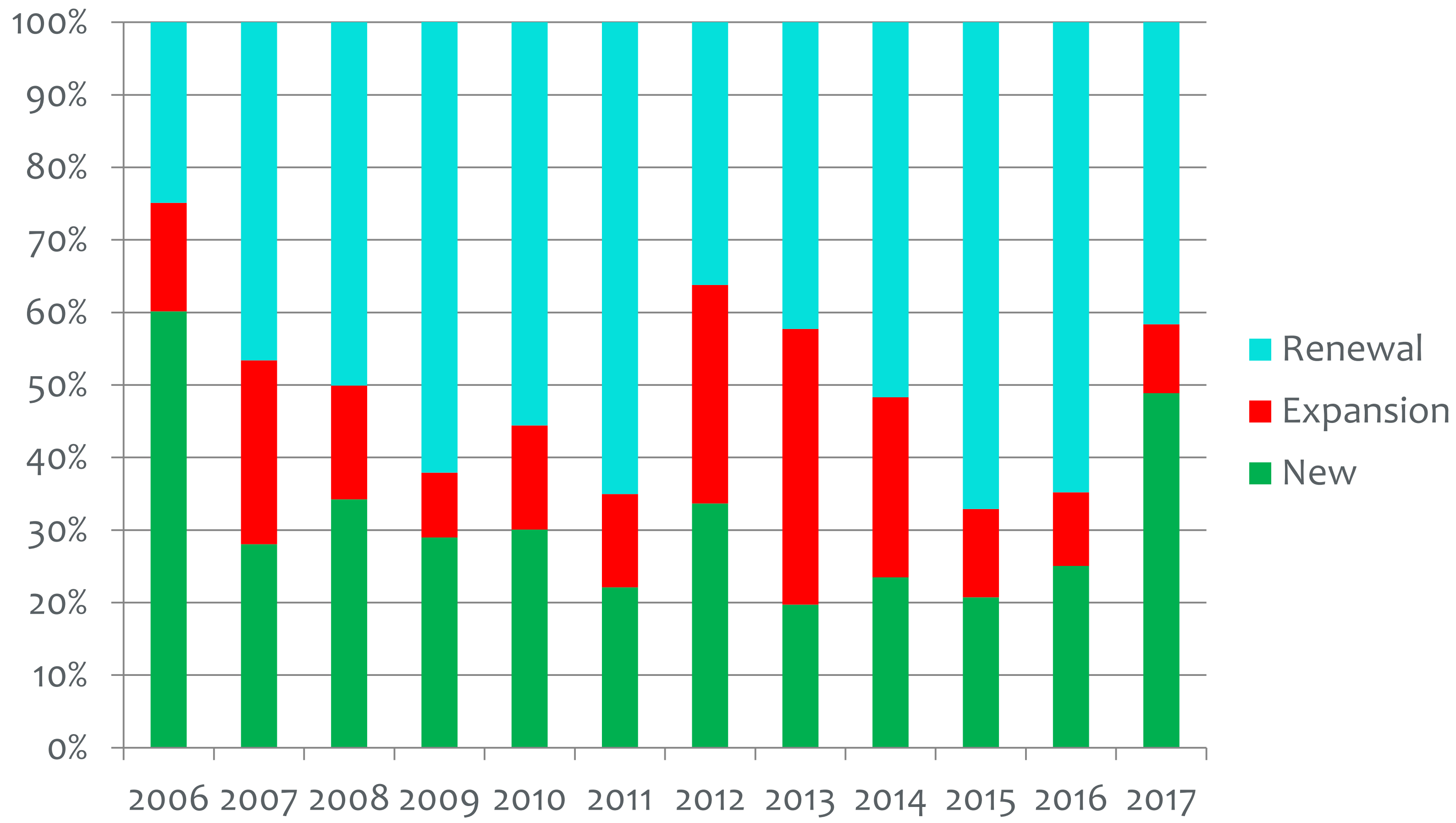
Firm Count by Industry

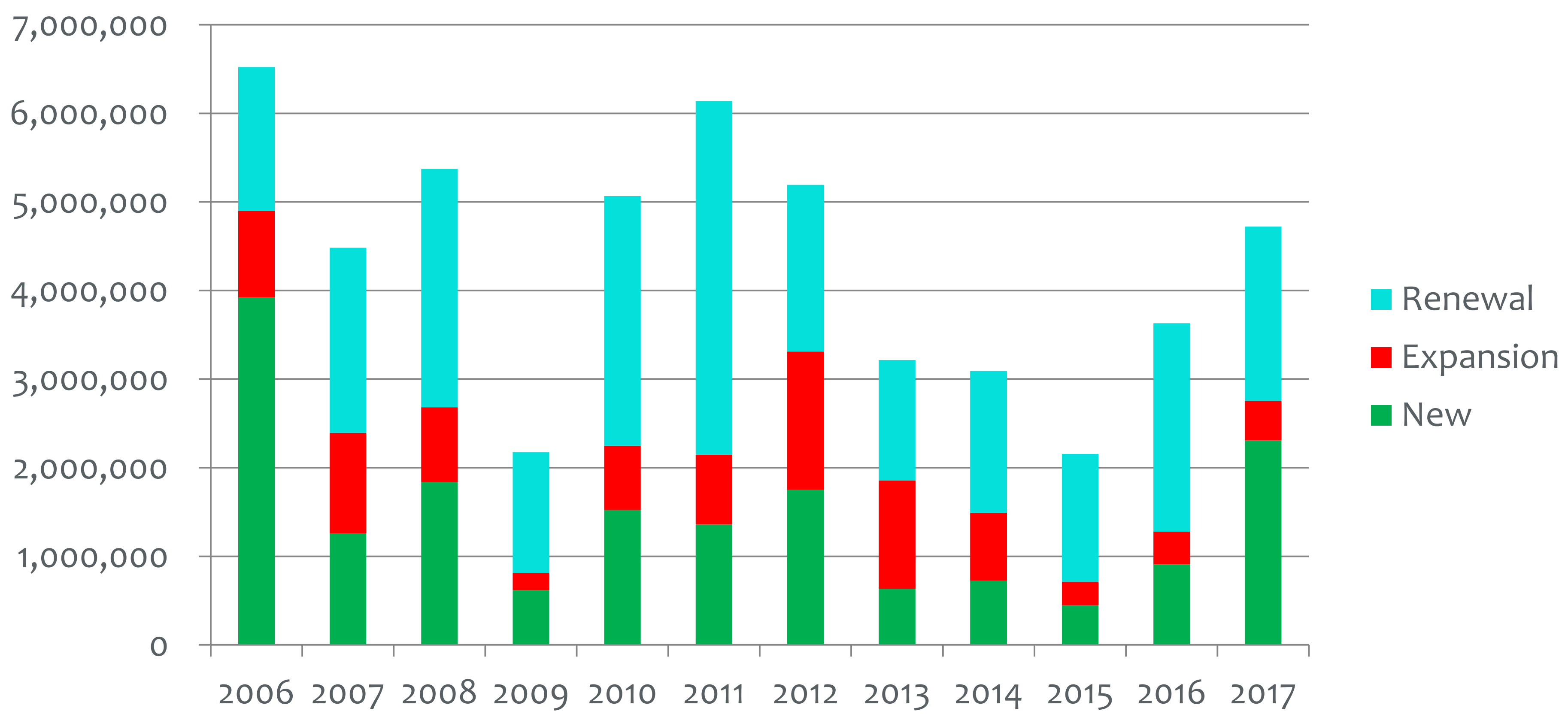


Firm Count by Tier and Industry



Leasing by Transaction Type





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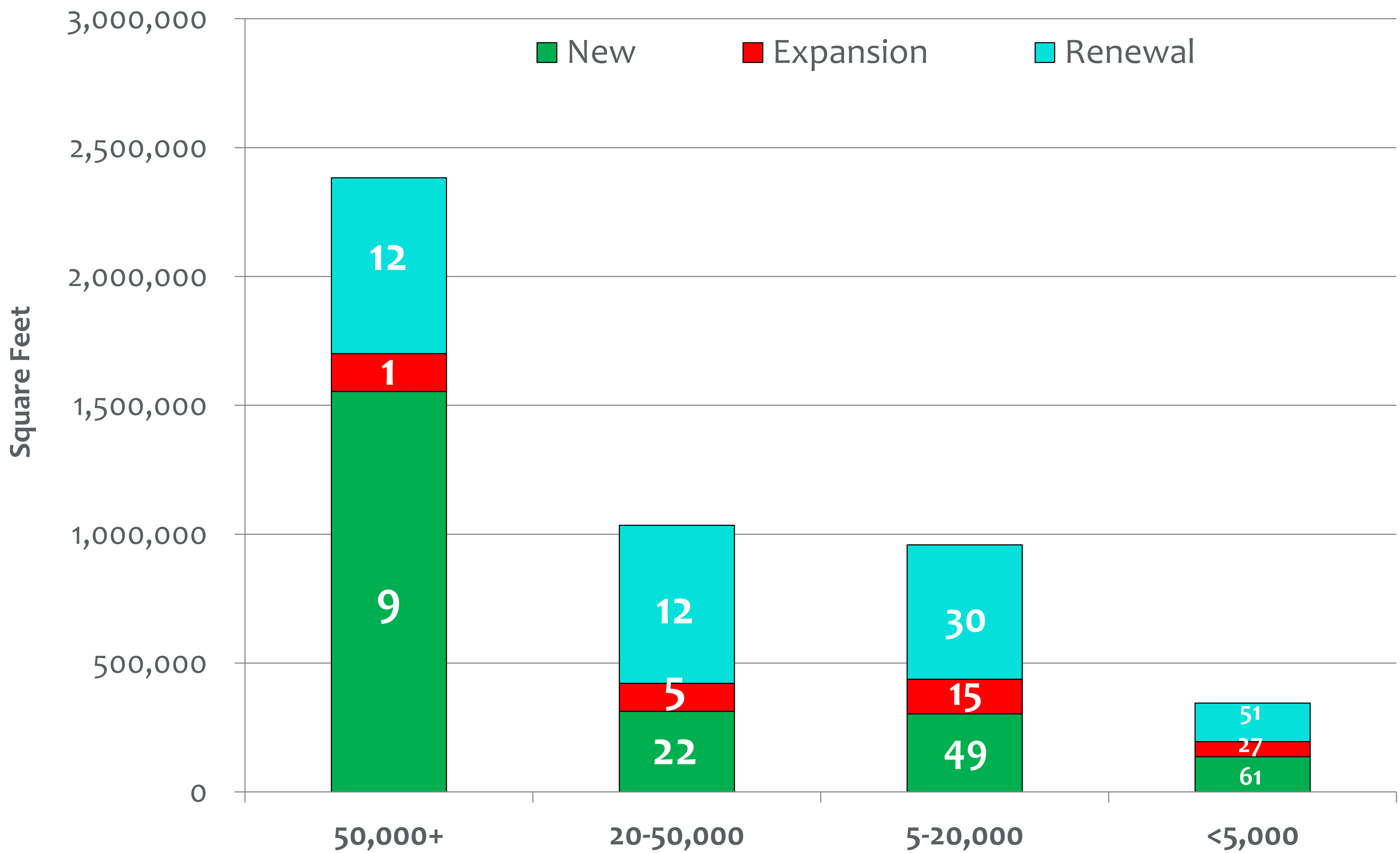
Lease Transactions, *by Size & Type*



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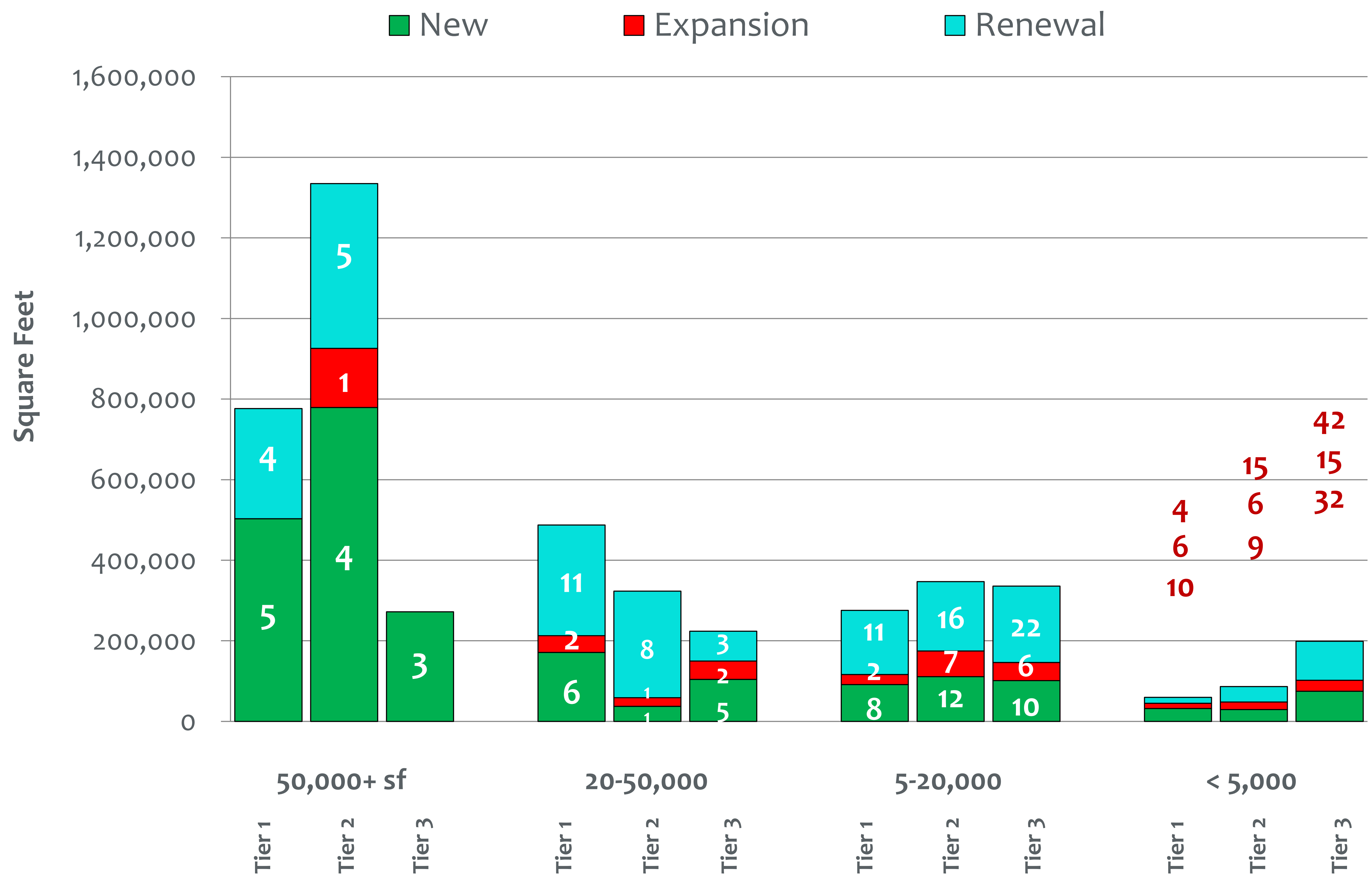
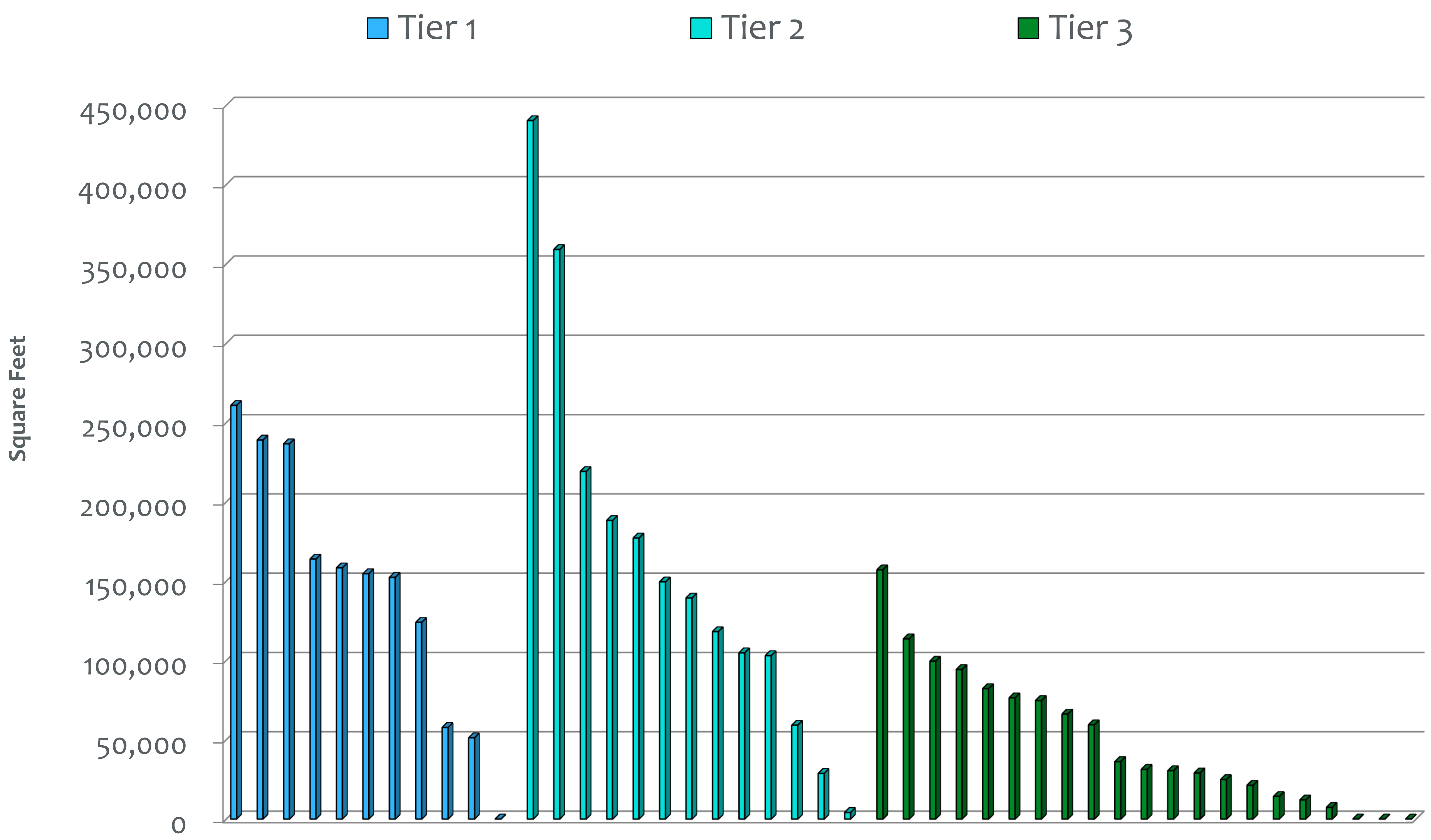
Lease Transactions, *by Tier*



Leases Signed *by Building*



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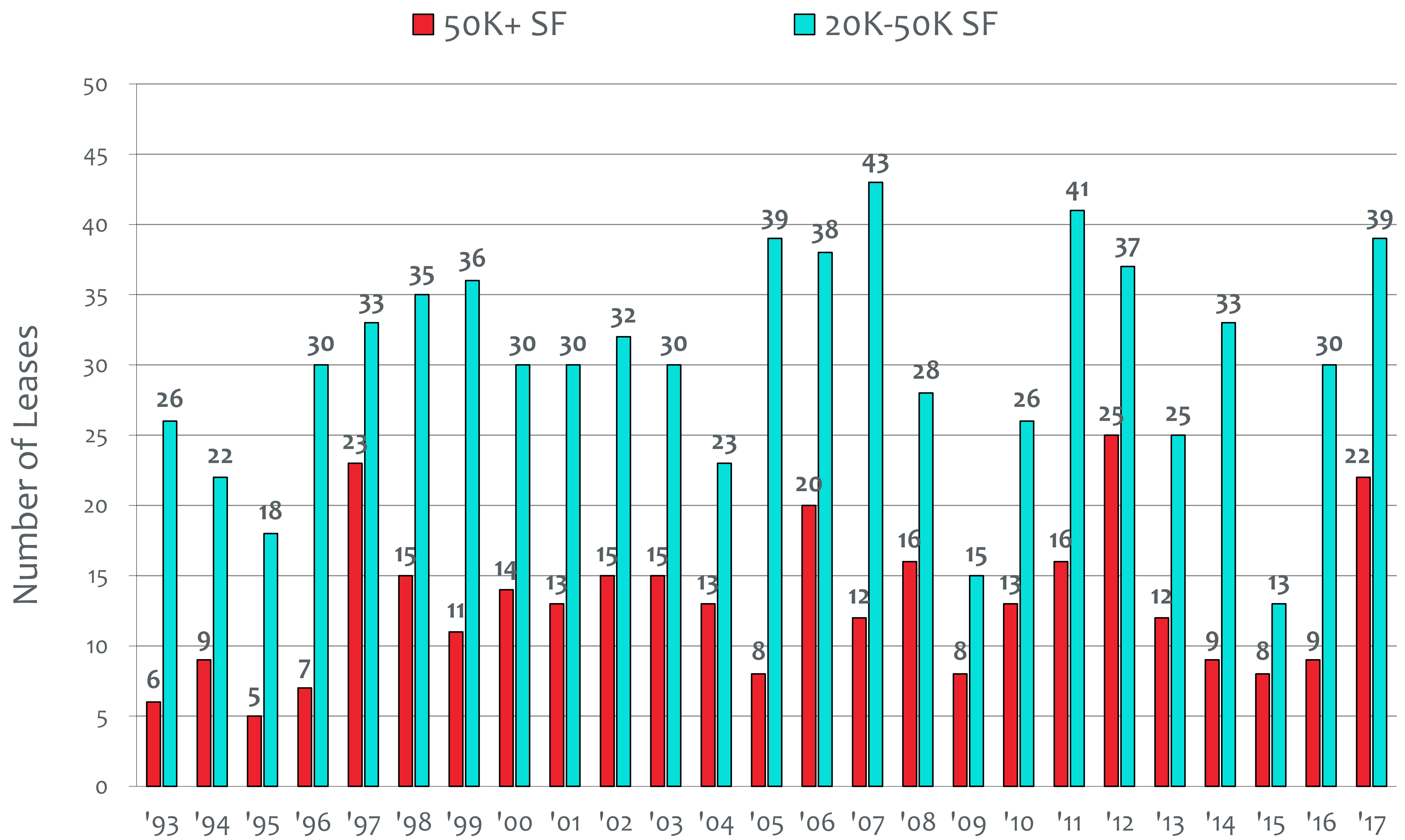
Number of *Large Transactions*

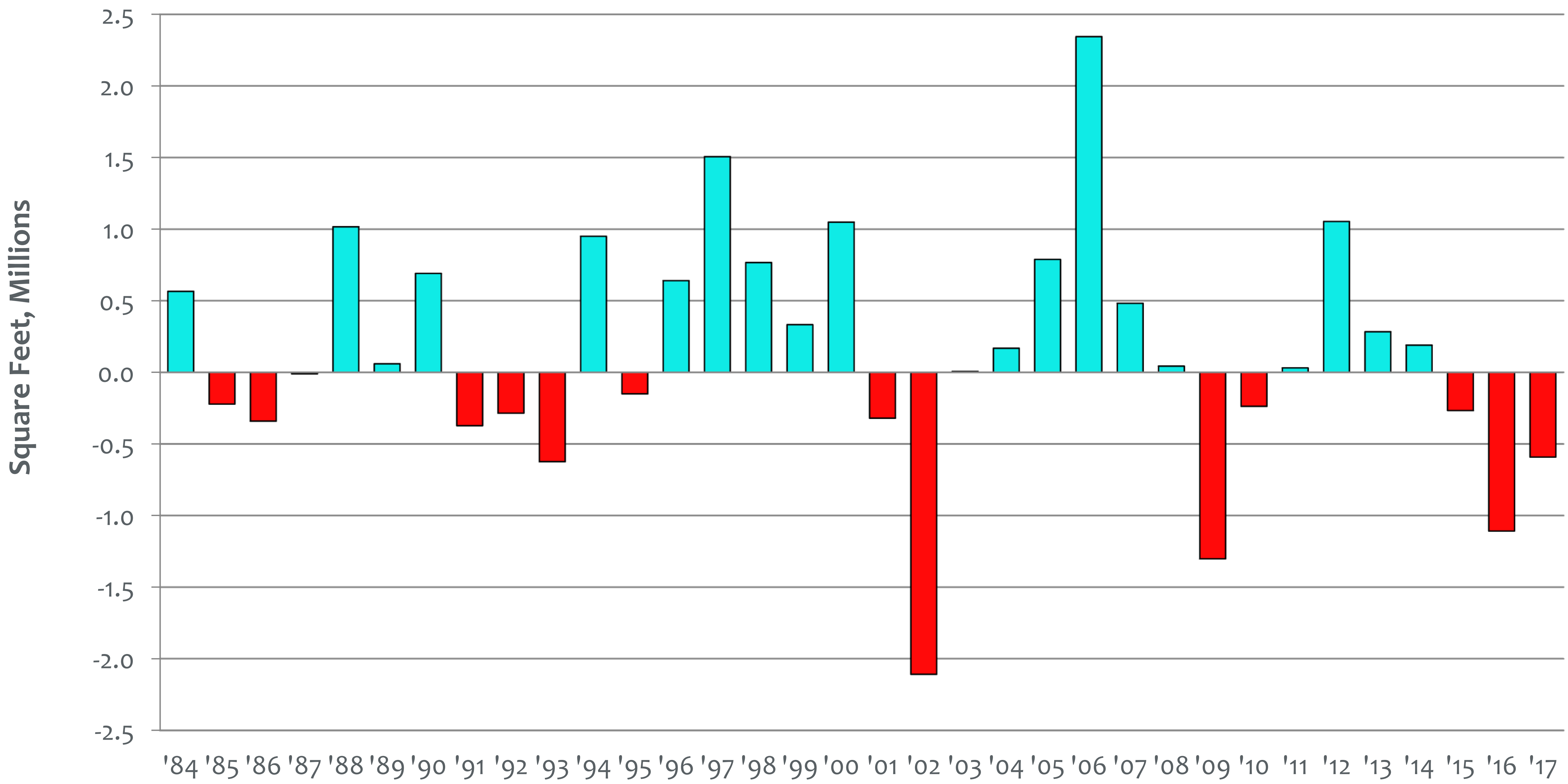


Definition – *Space Being Marketed*

- The aggregate of the *difference in space being marketed at the beginning versus the end of the year* within each building.

- For this study, absorption is tied to a change in space being marketed, not occupancy of a building.

Historical *Change in Marketed Space*



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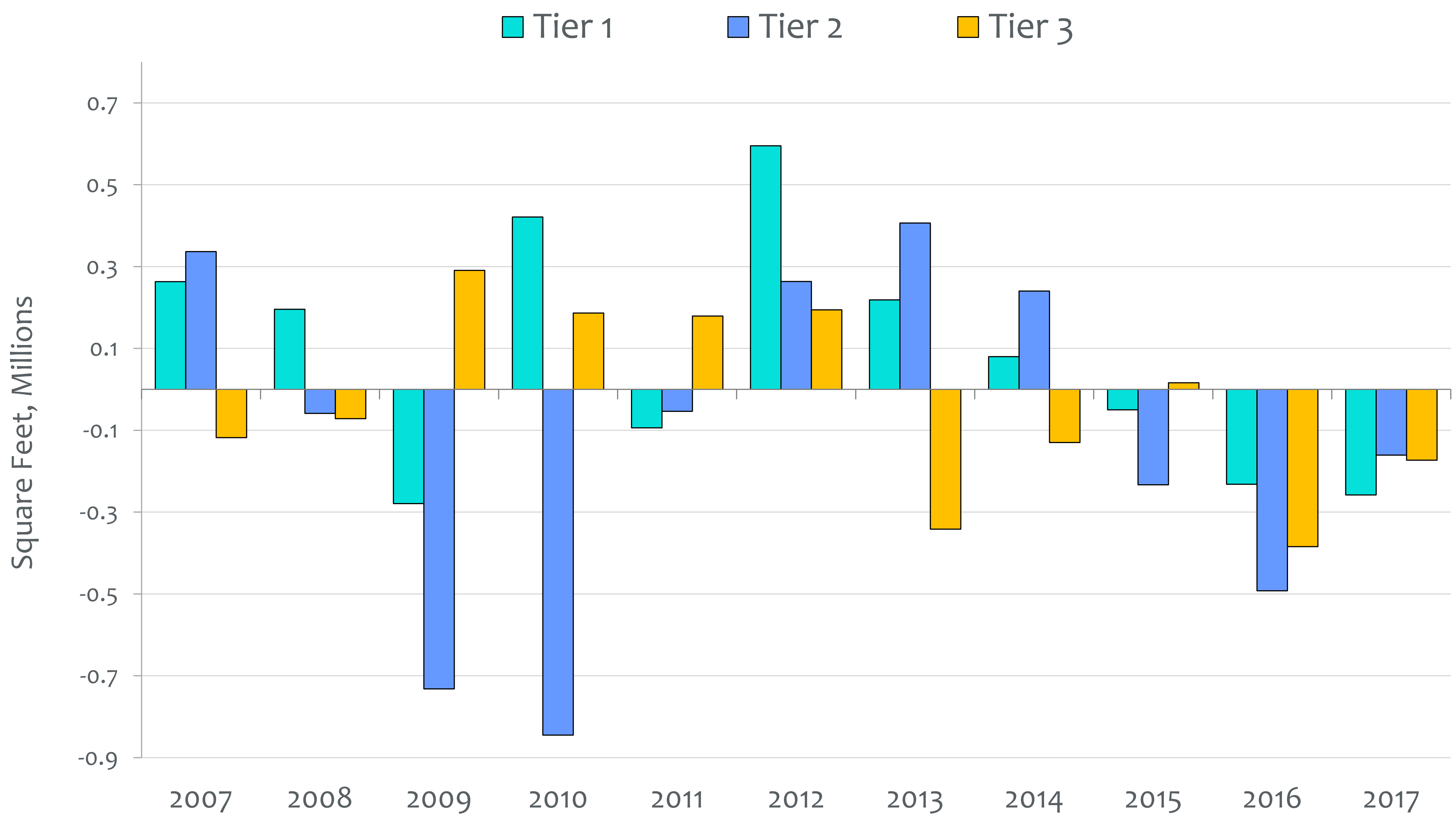
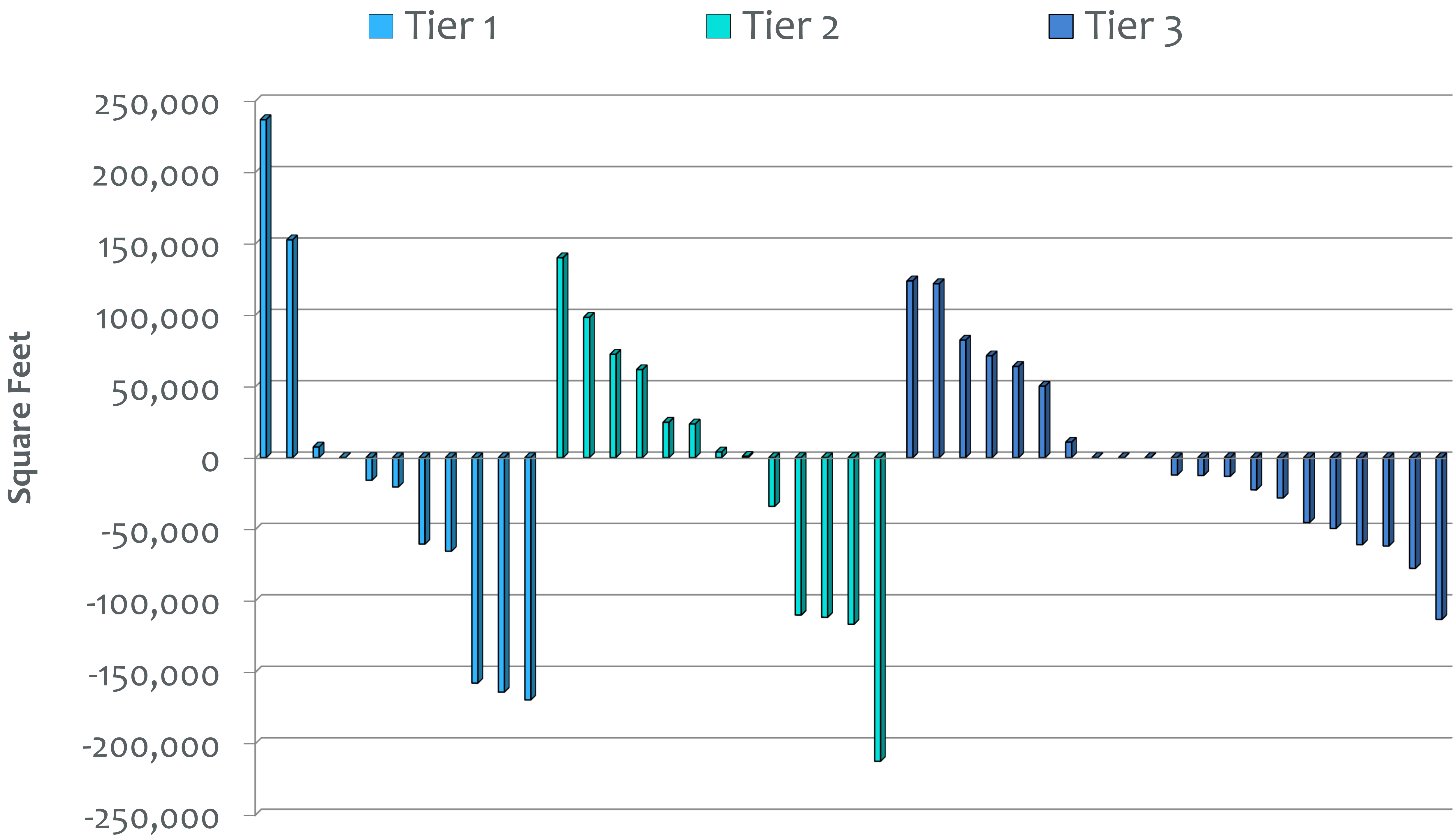
Absorption – *Building Tiers*

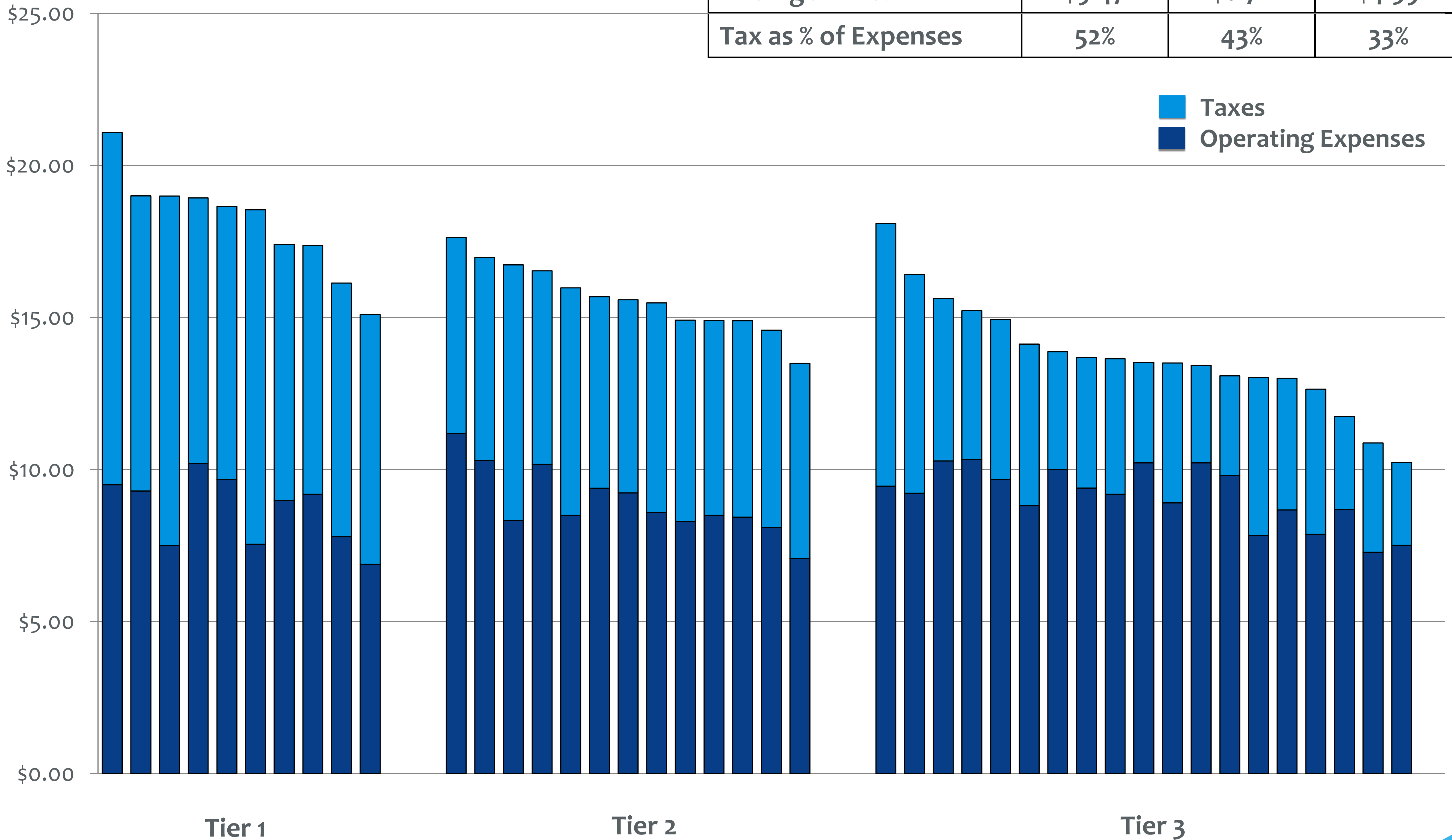


Absorption, *by Building*



Operating Expenses
2018 Projections

	Tier 1	Tier 2	Tier 3
Average Total Expenses	$18.12	$15.64	$13.72
Average Taxes	$9.47	$6.72	$4.59
Tax as % of Expenses	52%	43%	33%



Factors Affecting 2018+

Central Houston

- **Available Space**:
  - Vistra Energy's acquisition of Dynergy: Sublease space in 601 Travis (~102,000-SF)
  - Enervest & EV Energy Partners LP Bankruptcy
  - Halcón Resources – Wells Fargo Plaza (52,000-SF)
- **Expansions, M&As, etc.**
  - Staff Expansions:
    - Deloitte, KPMG, Arundo Analytics, Orrick, Pattern Energy Group Inc., Mitsubishi Heavy Industries Ltd., Kilpatrick Townsend & Stockton, Two Sigma Investments LP, White & Case LLP, etc.
  - M&A's (mostly law firms)
    - Alvarez & Marsal Taxand LLC's acquisition of TRCG Advisors
    - Gardere Wynne Sewell LLP and Foley & Lardner LLP merger (Foley Gardere)
    - Hunton & Williams LLP and Andrews Kurth Kenyon LLP merger (Hunton Andrews Kurth)
    - Strasburger & Price and Clark Hill (Clark Hill Strasburger)
    - Energy Transfer Partners' merger with Sunoco Logistics Partners: 1300 Main
    - Perkins & Will's acquisition of Lauckgroup
    - Talos Energy LLC's acquisition of Stone Energy Corp.
- **Other Factors**
  - Possible new office buildings: Hines; Crescent (6 Houston Center)
  - HSPVA
  - South Downtown Park

Downtown Development: 2017 & 2018+

CentralHouston

State of the Office Market

Current Office Buildings [159]	50,494,380-SF
Under Construction [1]	775,000-SF
Planned [3]	3,700,000-SF
Completed 2017 [1]	1.1 million-SF

CentralHouston

OFFICE

Completed

609 Main at Texas

- Hines
- 48 stories
- 1.1 million-SF
- Completed January 2017

Under Construction

Capitol Tower

- Skanska
- 35 stories
- 775,000-SF
- Est. Completion 2Q 2019

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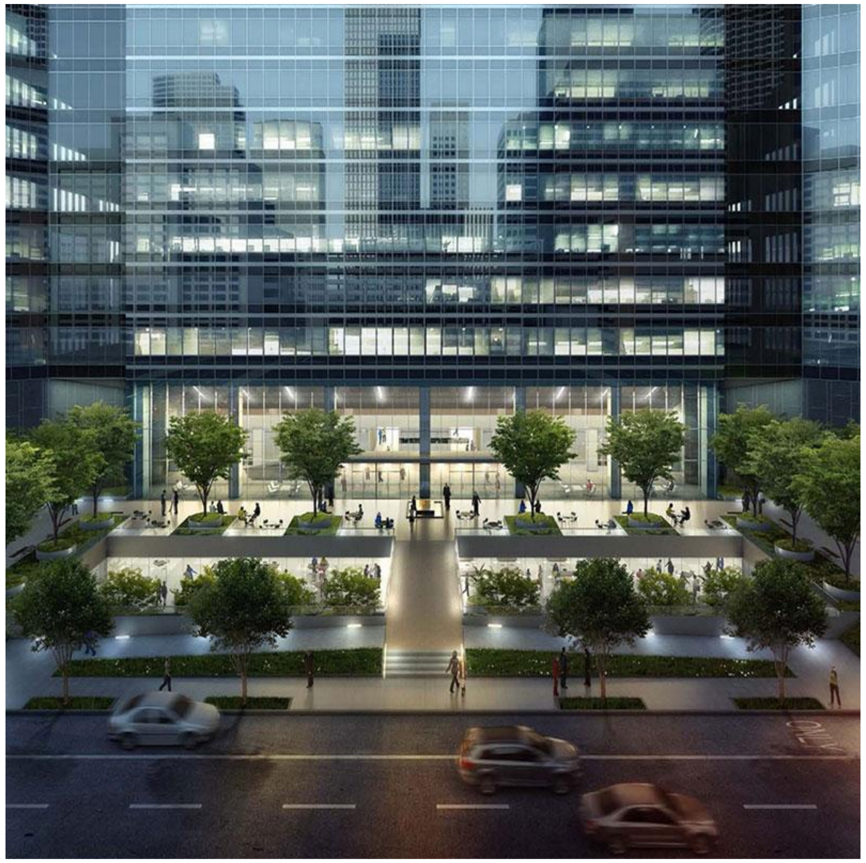
Planned

Chevron Office Tower

- 50 stories
- 1.7 million SF

6 Houston Center

- 30 stories
- 600,000 SF
- Crescent



800 Bell Redevelopment

- 45 stories
- 1.4 million SF
- Shorenstein Properties

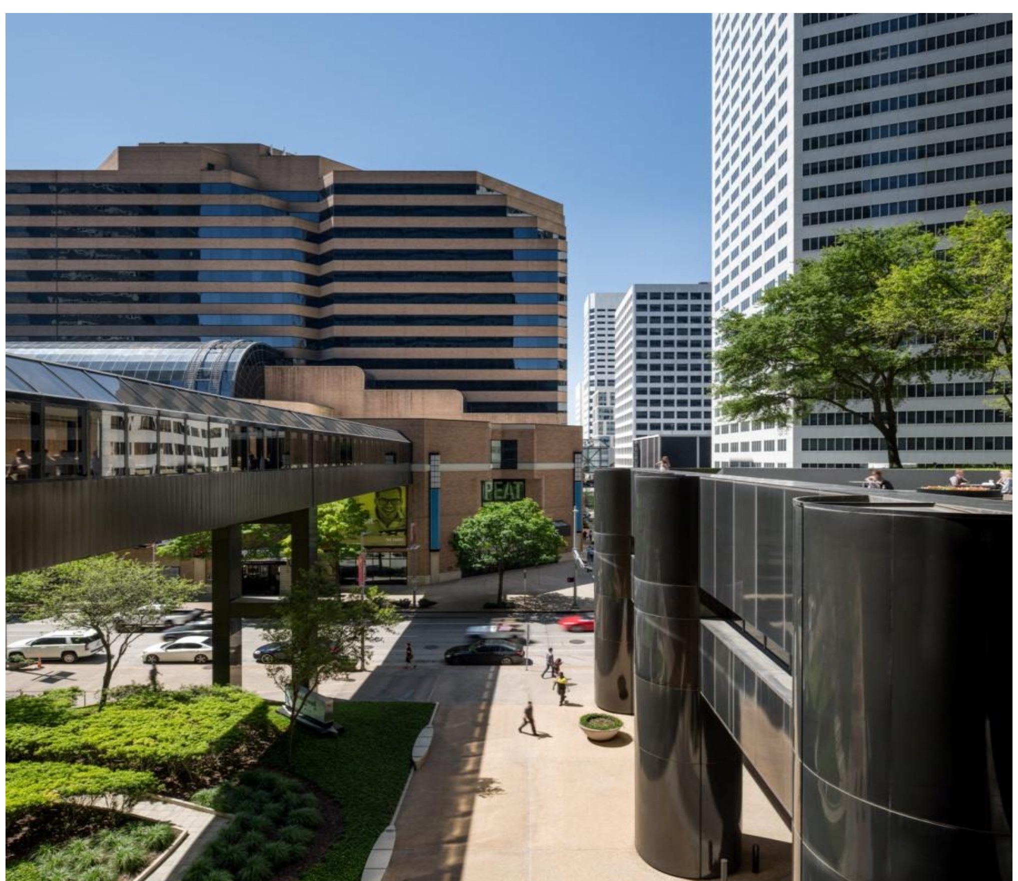
OFFICE

Transactions

Sold in 2017

Houston Center

- Seller: JP Morgan Chase
- Buyer: Brookfield Properties
- $875 million
- 4.2 million SF
- Office complex includes
  - LyondellBassell Tower
  - 2 Houston Center
  - Fulbright Tower
  - 4 Houston Center



On the Market

1001 McKinney

- Seller: Cameron Management
- 24-stories
- 375,440-SF
- National Register of Historic Places
- Real Estate Marketer: HFF

OFFICE

Co-Working and Collaborative Spaces

WeWork

- 708 Main
- 82,236 SF

Level Office

- 720 Rusk
- 405 Main

Station Houston

- 1301 Fannin
- 25,000 SF

Regus

- 700 Milam
- 2 Allen Center
- 1001 Texas

Serendipity Labs

- Esperson Building *(planned)*

State of the Hospitality Market

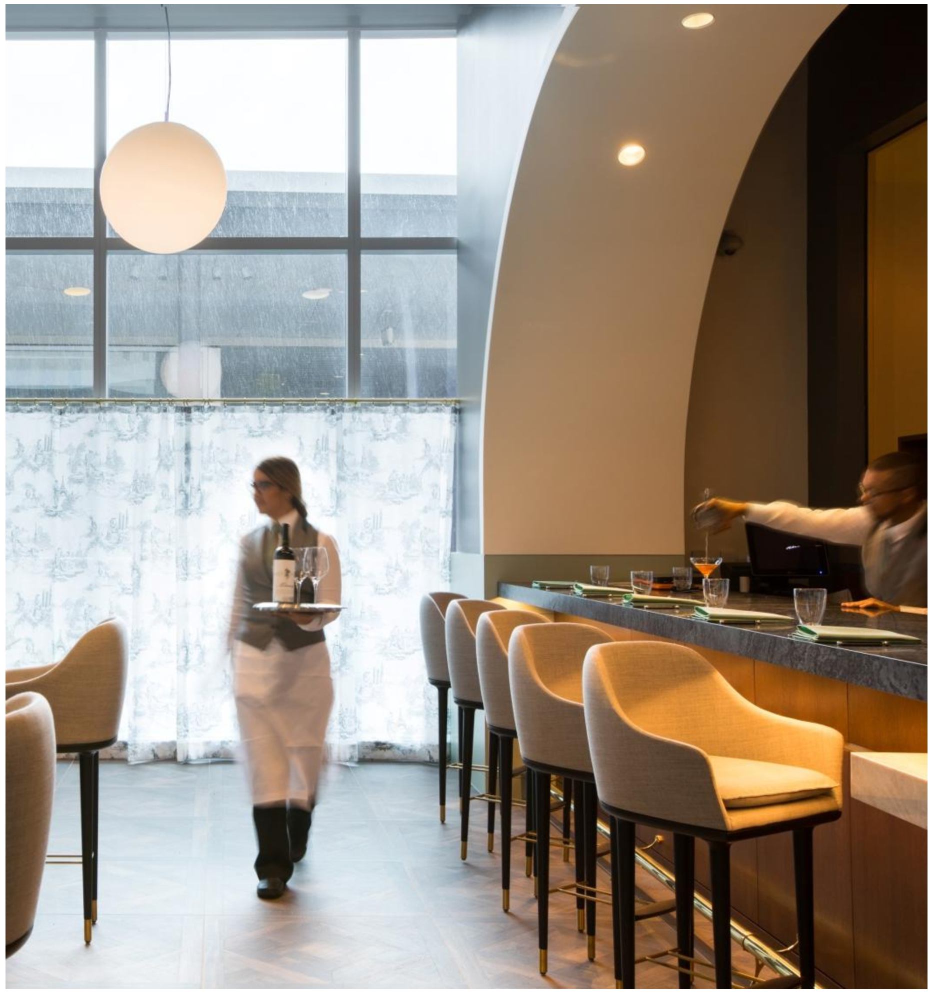
Current Hotel Rooms [25]	**7,803**
Under Construction [3]	565
Planned [1]	400+
Completed 2017 [2]	478

Completed 2017

CentralHouston

Hotel Alessandra

- 21 stories, 225 keys
- Midway Companies
- Completed: October 2017



Completed 2017

Le Meridien

- 21 stories, 255 rooms
- Development Services Group
- Completed: September 2017

Under Construction

Hyatt Place
- Redevelopment of 1114 Texas
- 16-stories, 150-keys
- Pride Management Inc.
- Est. completion 1Q 2019

AC Hotel by Marriott
- 10-stories, 195-keys
- Newcrestimage
- Est. completion 2Q 2019

Cambria Hotel
- Redevelopment of the Great Southwest building
- 21-stories, ~ 220-keys
- Choice Hotels International
- Est. completion: 2Q 2019

CentralHouston

State of the Residential Market

Current Residential Units [40]	**5,992**
Under Construction [2]	600
Planned [5]	1,179
Completed 2017 & 2018 [6]	1,668
Occupancy Rate (Q2 2018)	75.2%
Estimated Population	8,291

RESIDENTIAL

Completed 2017

The Star

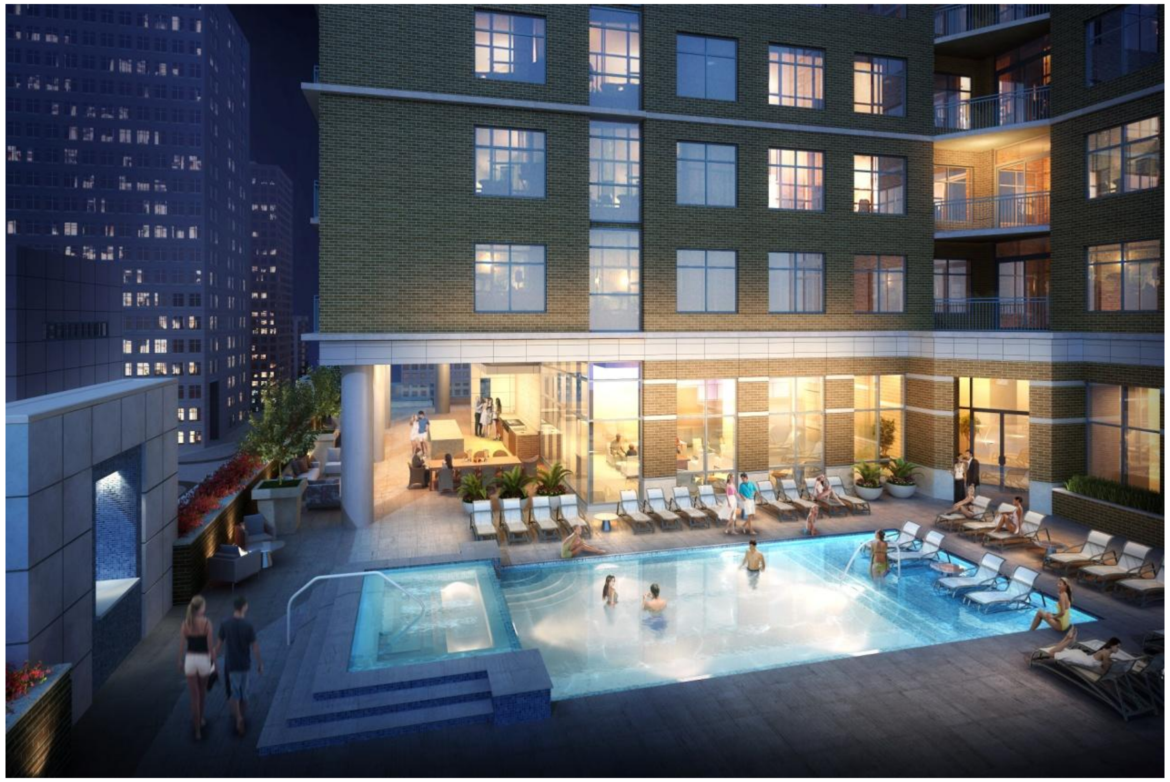
- 16 stories
- 323 units
- Provident Realty Advisors
- Completed: January 2017

RESIDENTIAL

Completed 2017

Aris Market Square

- Hines
- 32 stories
- 274 units
- Completed: September 2017



Central Houston

Completed 2017

Catalyst

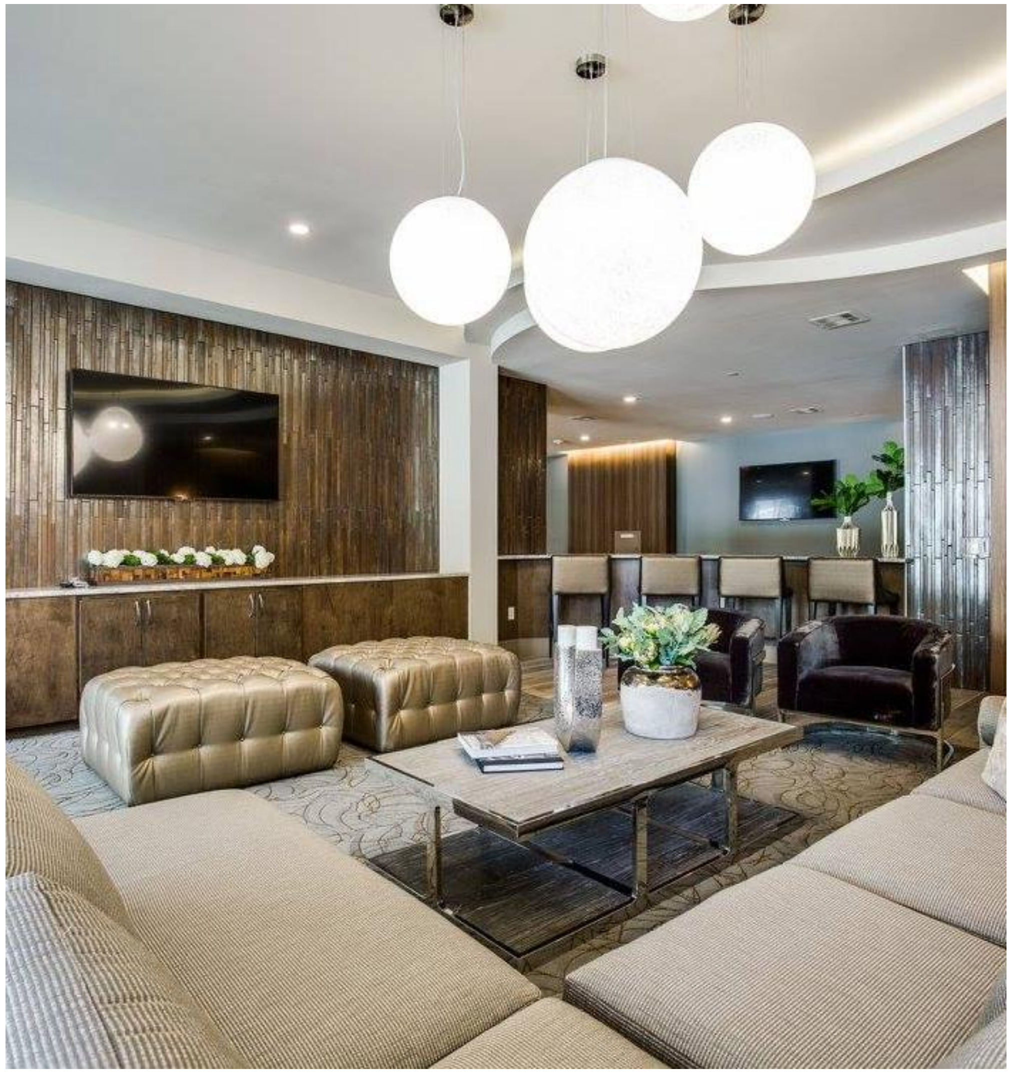
- Marquette Companies
- 28 stories
- 361 units
- Completed: October 2017

RESIDENTIAL

Completed 2017

Alexan Downtown

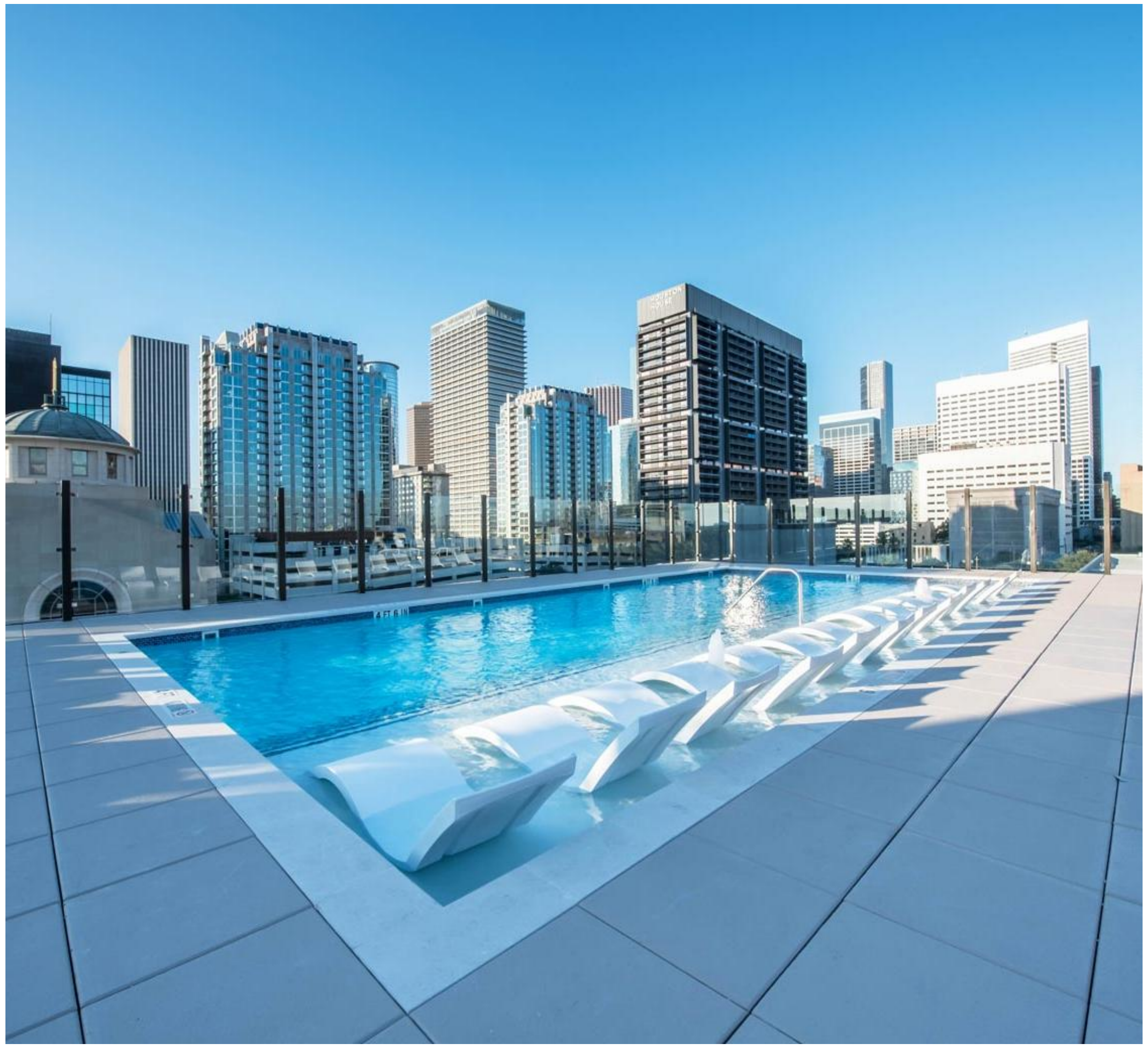
- Trammell Crow
- 6 stories
- 285 units
- Completed: October 2017



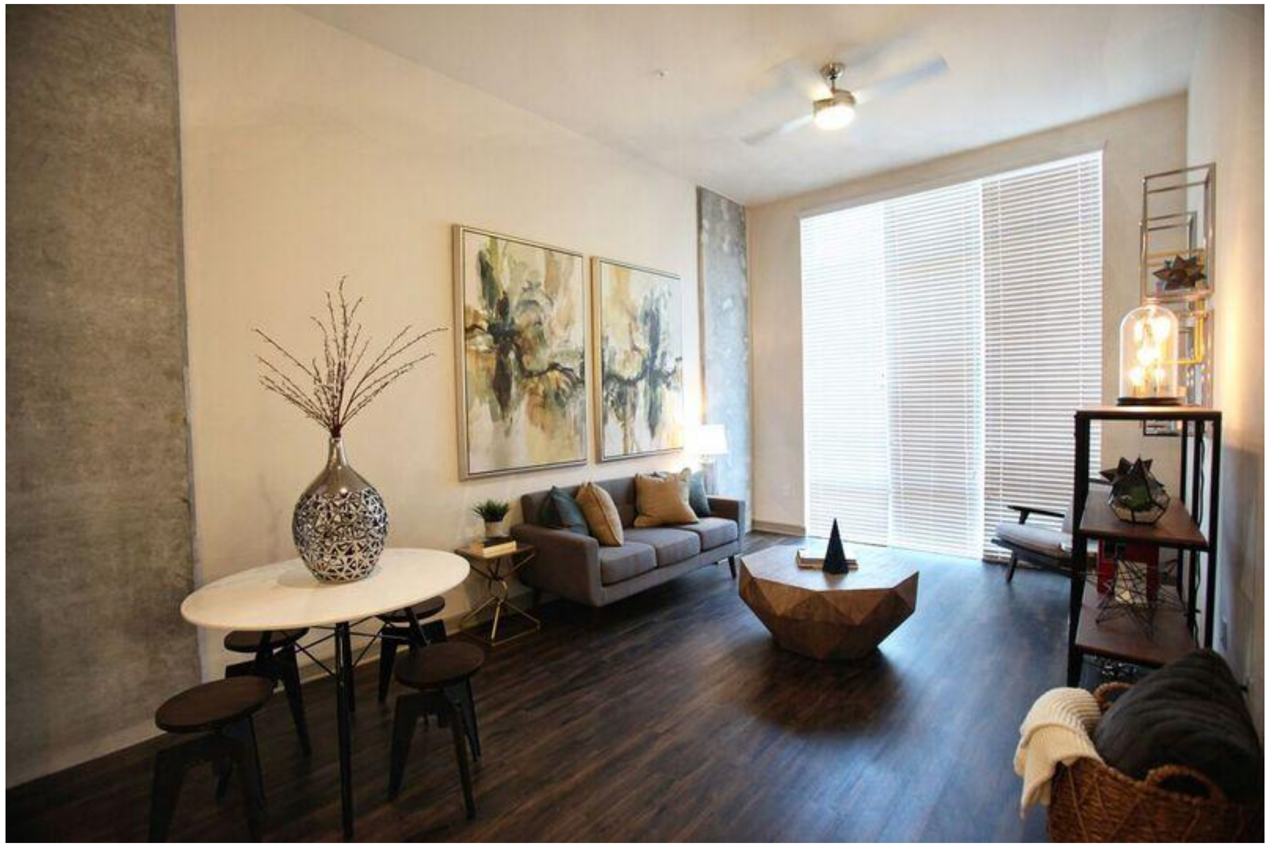
Completed 2017

Eighteen25

- Allied Orion Group
- 8 stories
- 242 units
- Completed: October 2017

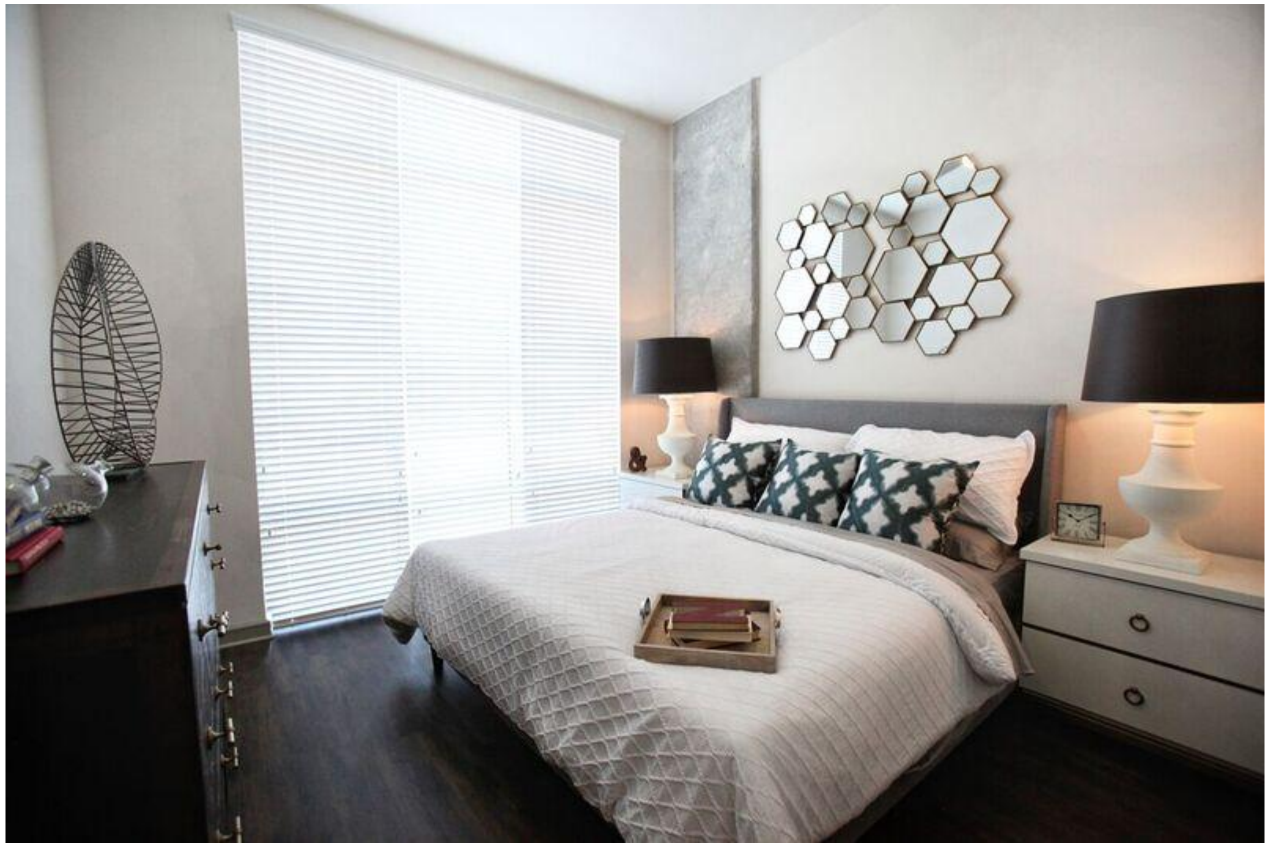


Completed 2018



1711 Caroline

- Leon Capital Group
- 5 stories
- 220 units
- Completed: March 2018



RESIDENTIAL

Under Construction

Marlowe

- Randall Davis
- 20 stories, 100 condo units
- Est. Completion: 4Q 2018

75 percent sold!

Camden Downtown

- Camden Property Trust
- 21-stories, 271-units
- First block of a 2-phase 550-unit development
- Est. completion 2Q 2020

Under Construction

CentralHouston

Regalia at the Park

- DLC Residential
- 6-stories, 229-units
- Est. completion: 2Q 2020

RESIDENTIAL

Planned

Block 330
- Camden Property Trust
- 21-story, 550-units
- 2-block, 2-phase devt.
- Est. start: 1Q 2020
- Est. completion: 2Q 2023

Block 114
- Marquette Companies
- 24 stories, 304 units
- Est. Start: 2Q 2018
- Est. Completion: 2Q 2020

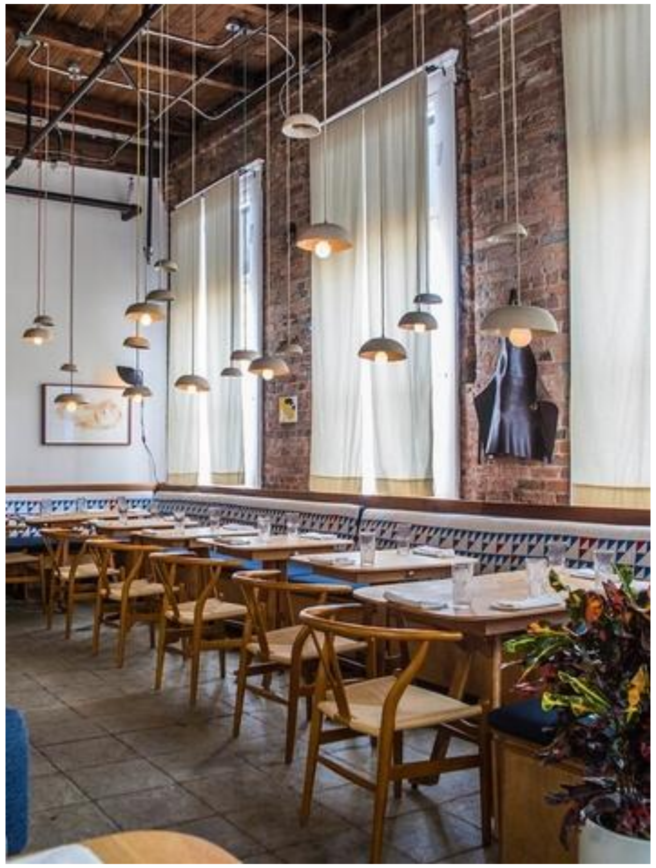
Block 98
- Trammell Crow
- 40 stories, 314-units
- 12-story garage podium
- Est. start: 1Q 2018
- Est. completion: 2Q 2020

1810 Main
- Fairfield Residential
- 10 stories, 286-units
- Est. start: 1Q 2018
- Est. completion: 2Q 2020

State of the Retail Market

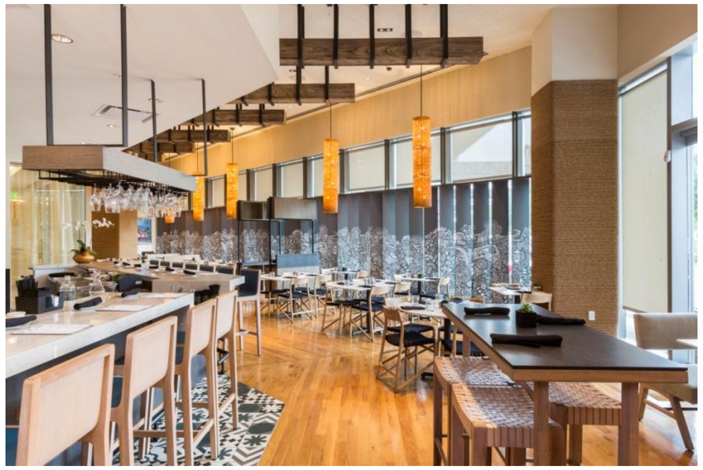
Restaurants, Bars & Clubs	390+
Opened 2017	37
Opened 2018 & Planned *(including 3 Food Halls)*	14

Critically Acclaimed Restaurants

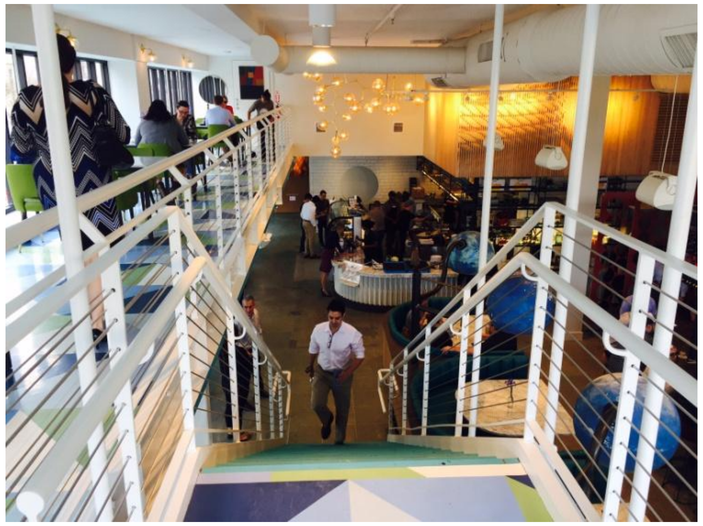


Theodore Rex

Potente



Xochi



Local Foods

Oxbow7

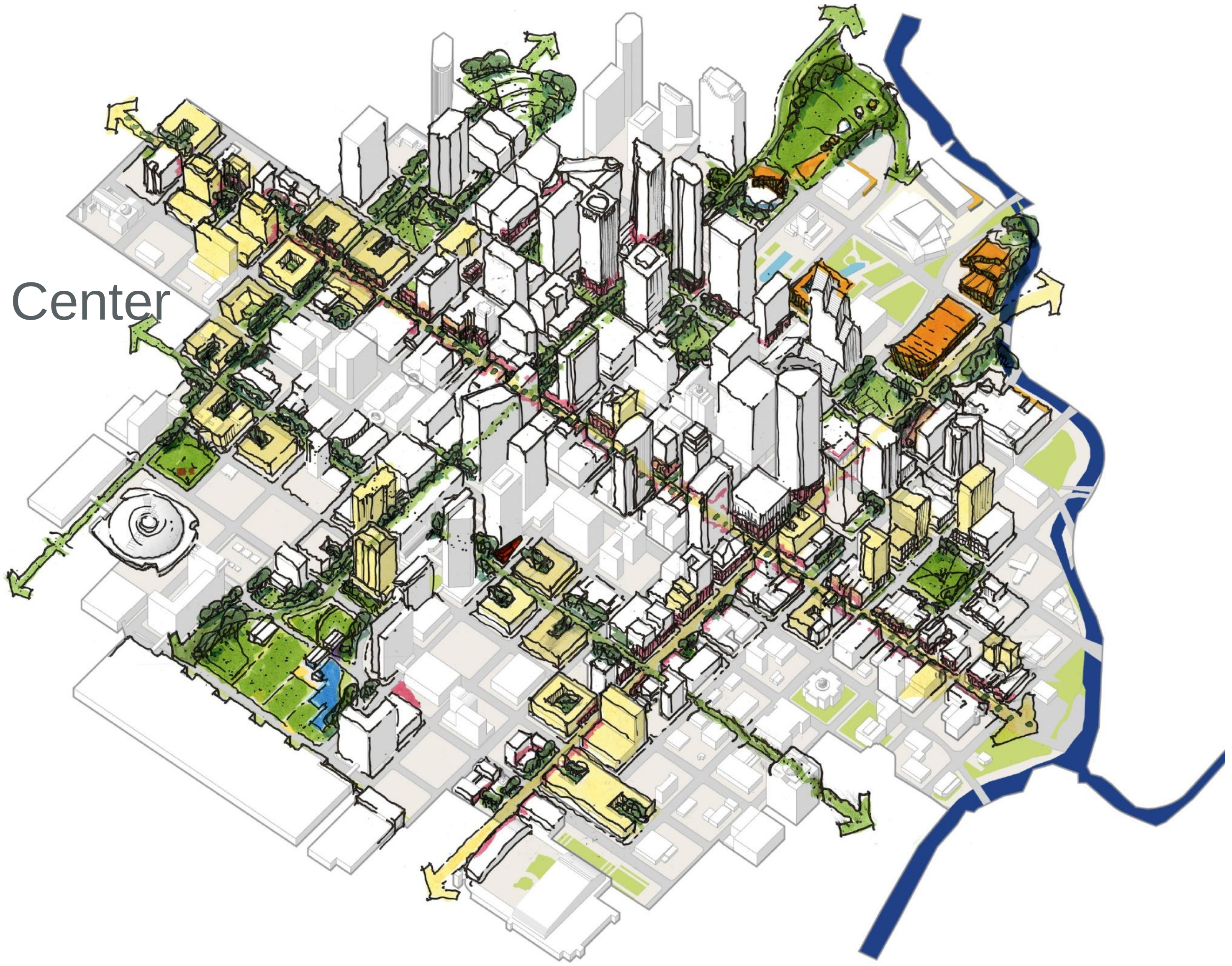
FUTURE

Plan Downtown

Vision

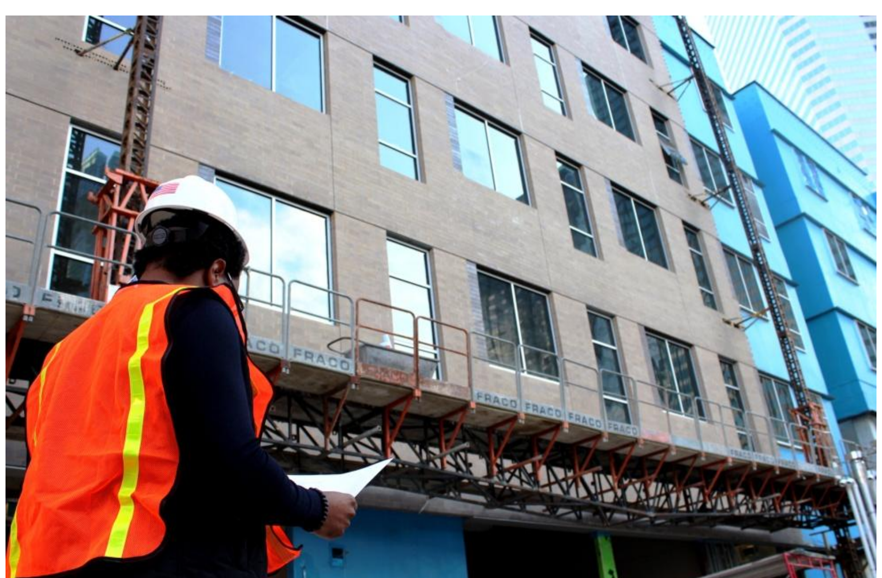
Downtown is at the forefront in advancing Houston as a great global city.

- Houston's Greatest Place To Be
- The Premier Business Location
- The Standard for Urban Livability
- The Region's Leading Multi-modal Center



EDUCATION

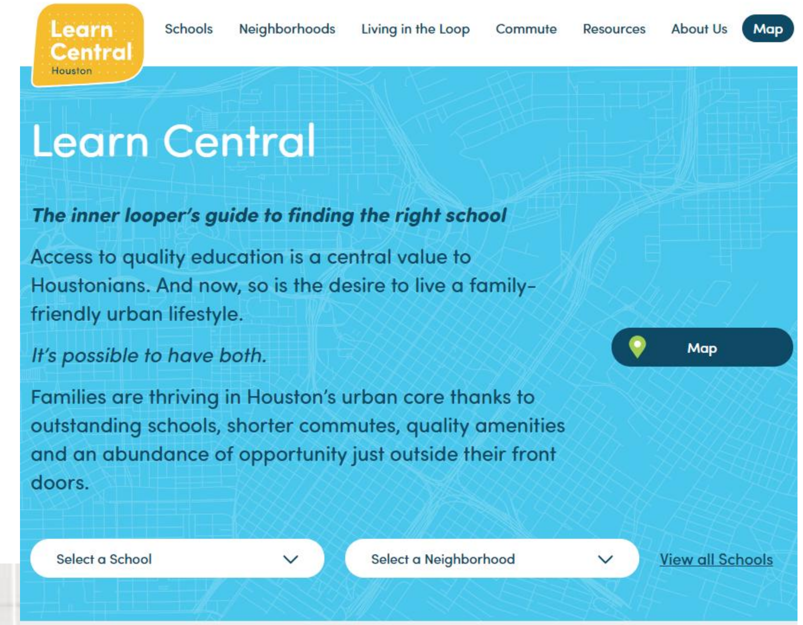
HSPVA (4Q 2018)



EDUCATION

Learn Central

- Central neighborhoods offer great education options
- Families want to live in the city's culturally diverse neighborhoods
- Linking schools, families and neighborhoods is key



152 Total Schools

119 Public

24 Private

Public Schools

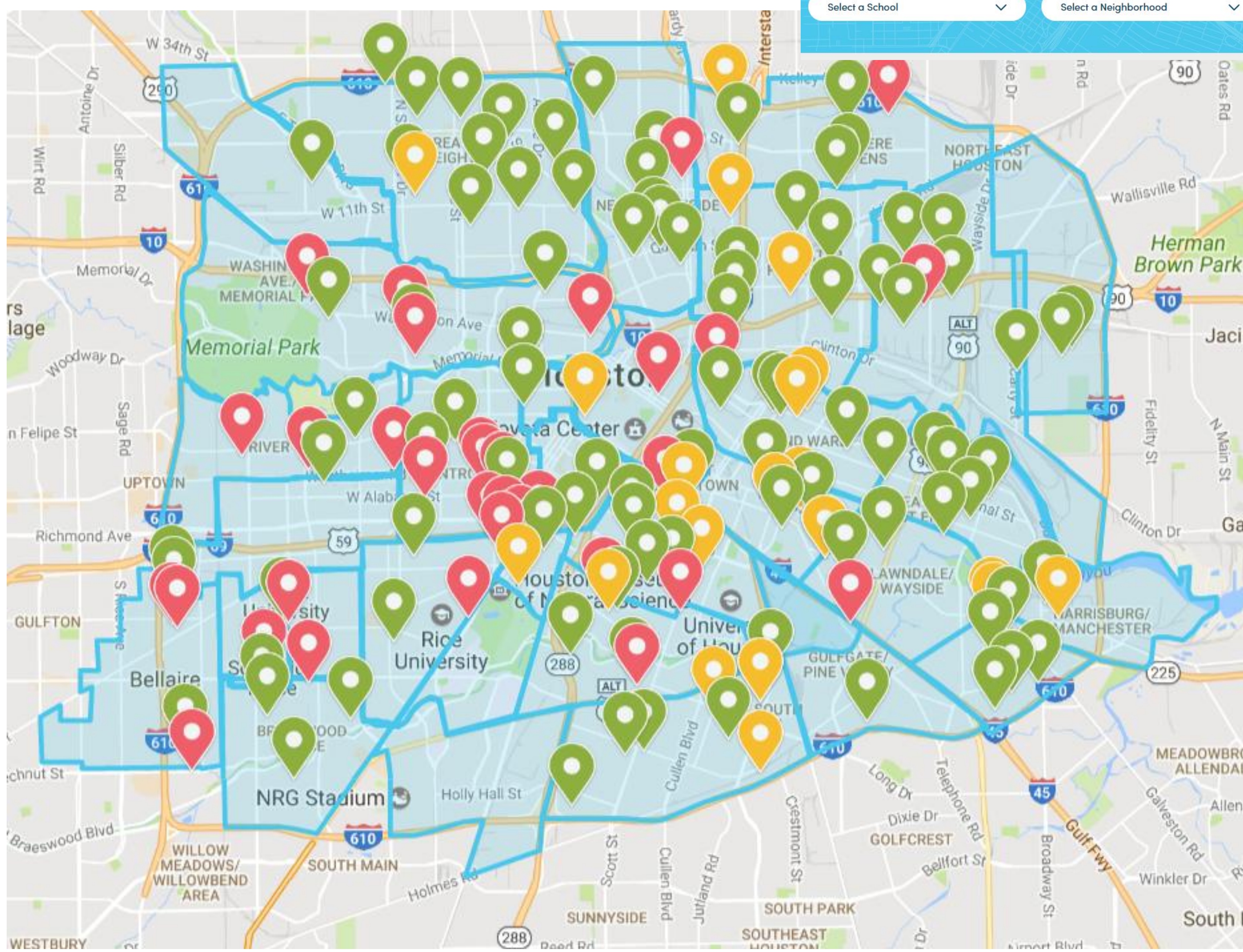
100 HISD

19 open-enrollment charter

Private Schools

23 Religious

10 Secular



Central Houston

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Thank you!

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