

FY 2024

RPIE 2021 Income and Expense Distributions

Prepared by the Property Division

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Special Thanks to the Property Modeling and Research Group

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RPIE 2021

Citywide by Property Type

Income, Expense, and Year-Year Change Distribution

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Property Type	Count	Variable	25th Pctl	50th Pctl	75th Pctl	Mean
INDUSTRIAL	2,511	Income	\$11.93	\$16.52	\$22.50	\$21.32
		Income % change	-0.67%	3.22%	13.92%	6.43%
		Expense	\$1.73	\$3.20	\$5.50	\$5.77
		Expense % change	-16.13%	4.81%	30.56%	13.46%
OFFICE	3,126	Income	\$24.52	\$38.33	\$60.03	\$62.17
		Income % change	-8.35%	0.29%	9.09%	0.06%
		Expense	\$5.90	\$11.43	\$19.35	\$18.85
		Expense % change	-10.86%	2.08%	18.65%	5.69%
RENTAL	12,454	Income	\$15.32	\$20.14	\$31.58	\$25.55
		Income % change	-5.68%	0.01%	4.19%	-1.60%
		Expense	\$7.51	\$9.60	\$13.08	\$11.22
		Expense % change	-4.29%	4.27%	14.92%	4.82%
RETAIL	7,754	Income	\$21.42	\$33.00	\$53.88	\$130.16
		Income % change	-1.65%	4.02%	17.85%	7.62%
		Expense	\$3.99	\$7.23	\$12.59	\$61.91
		Expense % change	-12.41%	4.39%	28.59%	11.64%

Notes:

Income = Gross Income per square foot

Expense = Total Expense per square foot

Income and Expense % changes based on information filed in RPIE 2020 and RPIE 2021

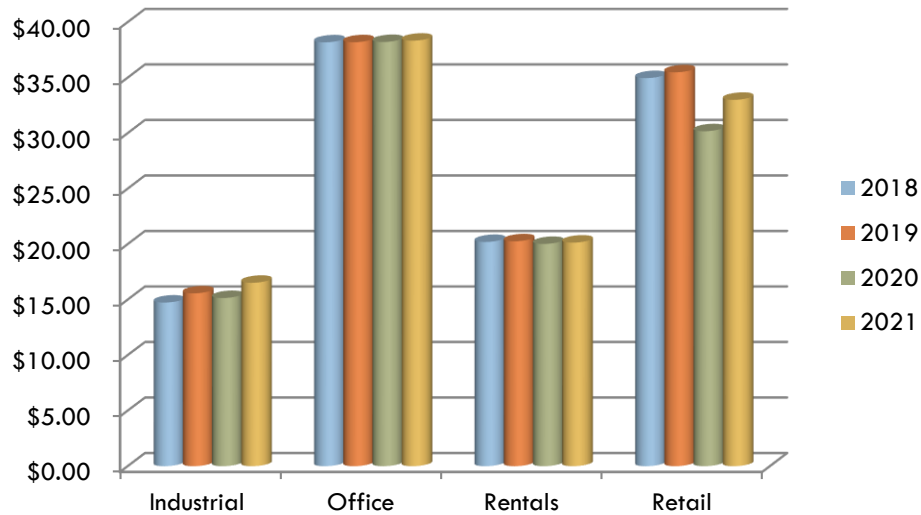
Rental Apartments with greater than 10 units

Does not include outlier filers and /or partial year filers

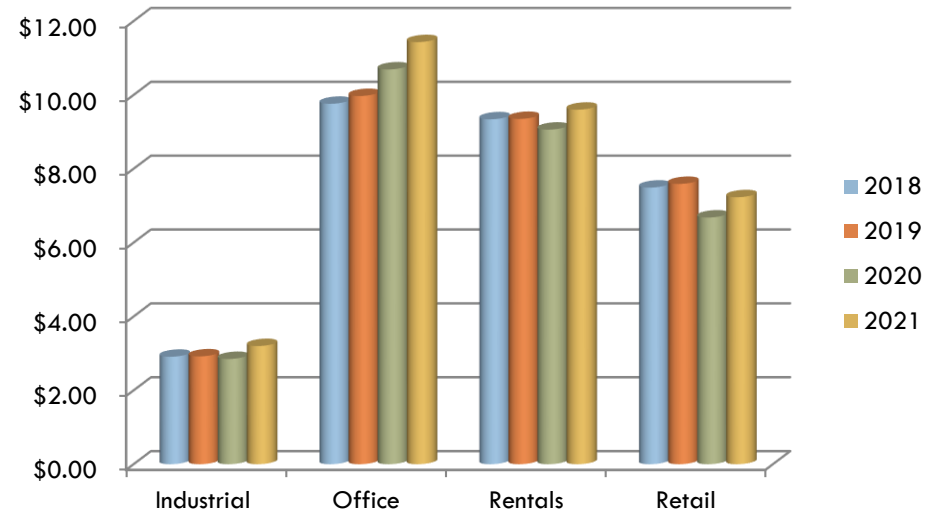
RPIE 2018 - 2021

Citywide by Property Type

Median Income Per Square Foot



Median Expense Per Square Foot



Number of Filings

Number of Filings	2018	2019	2020	2021
Industrial	2,763	2,840	2,589	2,511
Office	2,785	2,890	2,644	3,126
Rentals	14,213	13,865	13,319	12,454
Retail	9,335	8,983	7,953	7,754

Does not include outlier filers and /or partial year filers

RPIE 2021

Citywide by Borough

Income, Expense, and Year-Year Change Distribution

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Borough	Count	Variable	25th Pctl	50th Pctl	75th Pctl	Mean
Manhattan	7,787	Income	\$24.16	\$37.81	\$54.86	\$64.97
		Income % change	-11.45%	-2.28%	4.61%	-3.08%
		Expense	\$9.64	\$13.54	\$18.92	\$20.40
		Expense % change	-6.96%	3.95%	17.85%	6.16%
Bronx	4,234	Income	\$13.36	\$16.77	\$23.71	\$22.96
		Income % change	-1.13%	2.18%	8.05%	3.88%
		Expense	\$6.02	\$8.00	\$10.21	\$9.16
		Expense % change	-5.21%	4.16%	17.02%	7.89%
Brooklyn	7,213	Income	\$14.97	\$20.30	\$31.04	\$28.99
		Income % change	-1.81%	1.96%	8.65%	3.93%
		Expense	\$4.46	\$7.13	\$9.95	\$9.32
		Expense % change	-8.47%	3.50%	18.88%	7.59%
Queens	5,773	Income	\$17.64	\$23.90	\$37.18	\$127.99
		Income % change	-2.47%	2.49%	11.61%	5.17%
		Expense	\$3.95	\$7.09	\$10.63	\$73.14
		Expense % change	-8.50%	5.30%	22.86%	10.20%
Staten Island	838	Income	\$14.70	\$21.27	\$33.46	\$28.83
		Income % change	-1.35%	2.23%	13.36%	5.84%
		Expense	\$2.70	\$5.46	\$8.90	\$7.30
		Expense % change	-13.59%	2.90%	25.55%	8.16%

Notes:

Income = Gross Income per square foot

Expense = Total Expense per square foot

Income and Expense % changes based on information filed in RPIE 2020 and RPIE 2021

Rental Apartments with greater than 10 units

Does not include outlier filers and /or partial year filers

RPIE 2021

Industrial Properties by Borough

Income, Expenses, and Year-Year Change Distribution

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Major Building Category	Borough	Count	Variable	25th Pctl	50th Pctl	75th Pctl	Mean
INDUSTRIAL	Manhattan	32	Income	\$13.64	\$23.51	\$39.58	\$147.05
			Income % change	-16.88%	1.40%	16.01%	-0.72%
			Expense	\$1.27	\$4.29	\$8.44	\$114.28
			Expense % change	-23.47%	0.44%	22.84%	-6.02%
	Bronx	300	Income	\$11.07	\$14.64	\$19.77	\$17.70
			Income % change	0.00%	3.23%	13.56%	7.55%
			Expense	\$1.60	\$3.34	\$5.19	\$4.09
			Expense % change	-16.71%	4.15%	32.55%	14.89%
	Brooklyn	1,051	Income	\$11.96	\$16.12	\$21.71	\$18.83
			Income % change	-0.75%	3.00%	14.15%	7.21%
			Expense	\$1.82	\$3.24	\$5.61	\$4.51
			Expense % change	-15.11%	4.09%	30.68%	13.03%
	Queens	1,001	Income	\$12.60	\$18.48	\$24.49	\$21.94
			Income % change	-1.35%	3.55%	13.77%	5.64%
			Expense	\$1.72	\$3.31	\$5.51	\$4.47
			Expense % change	-16.58%	6.51%	30.29%	14.06%
Staten Island	127	Income	\$9.71	\$13.49	\$16.18	\$13.81	
		Income % change	-0.19%	1.38%	12.60%	5.40%	
		Expense	\$1.39	\$2.37	\$3.47	\$3.01	
		Expense % change	-17.13%	5.13%	32.82%	13.79%	

Notes:

Income = Gross Income per square foot

Expense = Total Expense per square foot

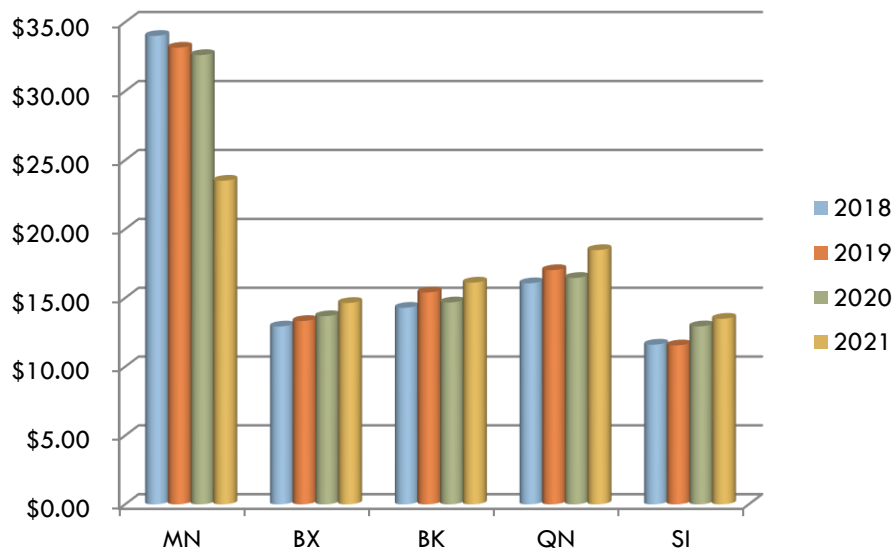
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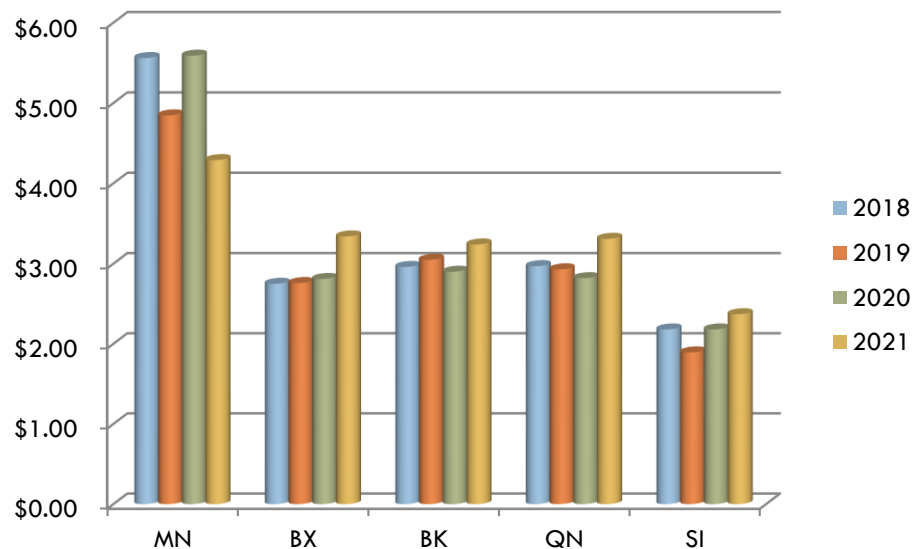
RPIE 2018 - 2021

Industrial Properties by Borough

Median Income Per Square Foot



Median Expense Per Square Foot



Number of Filings

	2018	2019	2020	2021
Manhattan (MN)	46	44	35	32
Bronx (BX)	334	363	318	300
Brooklyn (BK)	1,167	1,178	1,139	1,051
Queens (QN)	1,100	1,132	992	1,001
Staten Island (SI)	115	123	111	127

Does not include outlier filers and /or partial year filers

RPIE 2021

Office Properties by Borough

Income, Expenses, and Year-Year Change Distribution

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Major Building Category	Borough	Count	Variable	25th Pctl	50th Pctl	75th Pctl	Mean
OFFICE	Manhattan	1,526	Income	\$34.34	\$50.37	\$74.96	\$84.62
			Income % change	-13.69%	-0.92%	7.87%	-2.80%
			Expense	\$11.20	\$17.48	\$24.81	\$26.65
			Expense % change	-10.04%	1.35%	14.83%	4.83%
	Bronx	200	Income	\$18.31	\$28.64	\$39.02	\$30.46
			Income % change	-3.11%	1.26%	7.68%	1.38%
			Expense	\$3.23	\$6.41	\$10.49	\$7.85
			Expense % change	-14.41%	3.87%	23.34%	5.82%
	Brooklyn	617	Income	\$19.58	\$29.05	\$43.34	\$37.07
			Income % change	-2.95%	2.06%	9.70%	2.23%
			Expense	\$3.86	\$6.75	\$11.56	\$9.66
			Expense % change	-12.58%	2.87%	21.57%	6.63%
	Queens	608	Income	\$21.19	\$33.42	\$49.06	\$51.29
			Income % change	-3.83%	1.91%	11.23%	3.11%
			Expense	\$4.30	\$8.20	\$13.62	\$15.21
			Expense % change	-10.46%	3.32%	21.46%	6.86%
Staten Island	175	Income	\$19.11	\$24.97	\$35.40	\$28.96	
		Income % change	-2.64%	1.31%	12.00%	5.20%	
		Expense	\$3.20	\$6.95	\$10.57	\$8.46	
		Expense % change	-16.60%	2.00%	25.64%	5.67%	

Notes:

Income = Gross Income per square foot

Expense = Total Expense per square foot

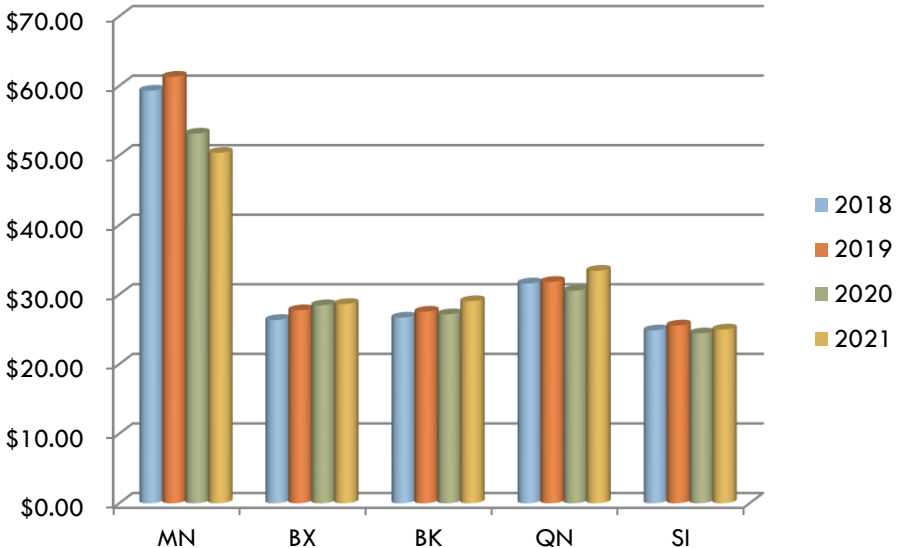
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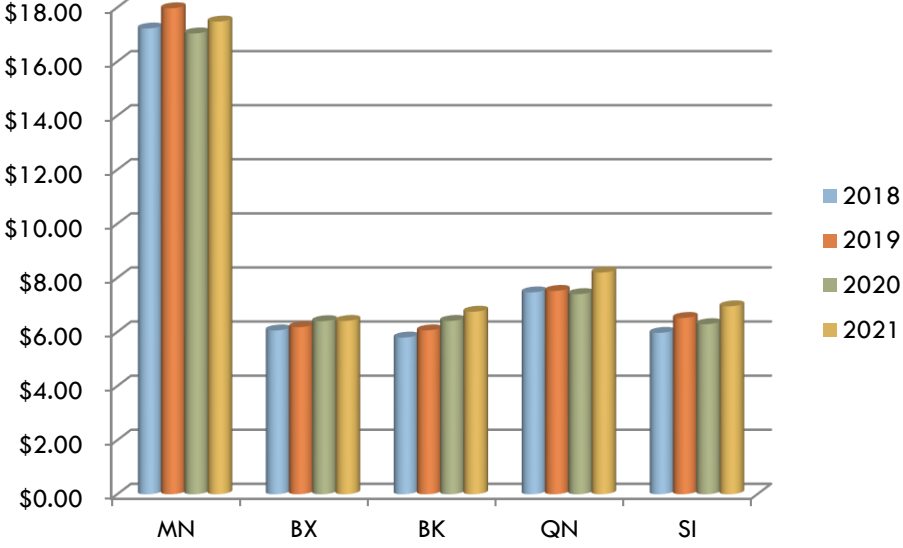
RPIE 2018 - 2021

Office Properties by Borough

Median Income Per Square Foot



Median Expense Per Square Foot



Number of Filings

	2018	2019	2020	2021
Manhattan (MN)	1,173	1,177	1,510	1,526
Bronx (BX)	179	196	181	200
Brooklyn (BK)	633	646	606	617
Queens (QN)	613	689	624	608
Staten Island (SI)	187	182	181	175

Does not include outlier filers and /or partial year filers

RPIE 2021

Rental Apartments By Borough

Income, Expense, and Year-Year Change Distribution

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Major Building Category	Borough	Count	Variable	25th Pctl	50th Pctl	75th Pctl	Mean
RENTAL APARTMENTS	Manhattan	4,801	Income	\$21.23	\$32.69	\$43.46	\$34.84
			Income % change	-11.38%	-3.66%	1.99%	-5.44%
			Expense	\$9.76	\$12.95	\$16.76	\$14.23
			Expense % change	-4.93%	5.06%	17.01%	5.52%
	Bronx	2,617	Income	\$12.77	\$15.17	\$18.12	\$16.68
			Income % change	-1.14%	1.74%	5.96%	1.86%
			Expense	\$7.03	\$8.40	\$10.12	\$9.27
			Expense % change	-3.13%	3.99%	12.85%	4.76%
	Brooklyn	3,296	Income	\$14.44	\$17.90	\$23.52	\$20.98
			Income % change	-2.62%	1.04%	4.82%	0.42%
			Expense	\$6.62	\$8.30	\$10.37	\$9.26
			Expense % change	-5.16%	3.27%	13.07%	3.57%
	Queens	1,642	Income	\$17.24	\$20.59	\$24.30	\$22.05
			Income % change	-3.64%	0.57%	4.14%	-0.07%
			Expense	\$6.91	\$8.76	\$11.07	\$9.61
			Expense % change	-2.22%	5.52%	15.34%	5.87%
Staten Island	98	Income	\$13.98	\$16.51	\$20.44	\$19.43	
		Income % change	-1.06%	1.20%	4.93%	1.30%	
		Expense	\$6.16	\$7.94	\$9.60	\$8.84	
		Expense % change	-10.39%	-0.60%	7.47%	-3.55%	

Notes:

Income = Gross Income per square foot

Expense = Total Expense per square foot

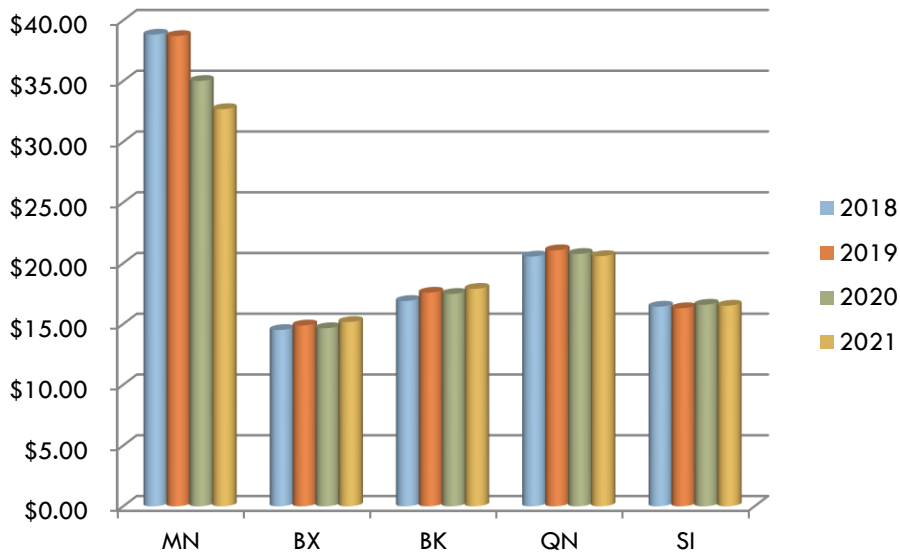
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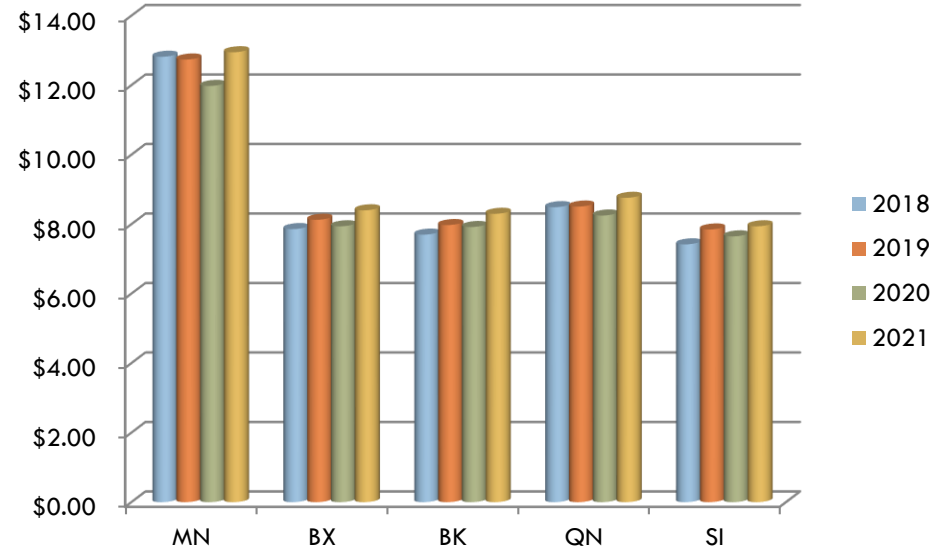
RPIE 2018 - 2021

Rental Properties by Borough

Median Income Per Square Foot



Median Expense Per Square Foot



Number of Filings

	2018	2019	2020	2021
Manhattan (MN)	5,342	5,167	5,076	5,423
Bronx (BX)	2,652	3,116	2,916	2,747
Brooklyn (BK)	3,222	3,578	3,458	3,210
Queens (QN)	1,643	1,894	1,752	1,732
Staten Island (SI)	107	110	104	113

Does not include outlier filers and /or partial year filers

RPIE 2021

Retail Properties By Borough

Income, Expenses, and Year-Year Change Distribution

Major Building Category	Borough	Count	Variable	25th Pctl	50th Pctl	75th Pctl	Mean
RETAIL	Manhattan	1,428	Income	\$33.91	\$62.14	\$116.04	\$143.44
			Income % change	-8.37%	2.87%	18.80%	4.52%
			Expense	\$7.22	\$13.53	\$23.84	\$32.34
			Expense % change	-14.08%	3.37%	25.31%	10.02%
	Bronx	1,117	Income	\$20.65	\$30.01	\$43.59	\$37.75
			Income % change	-1.57%	3.97%	16.22%	8.07%
			Expense	\$4.21	\$7.38	\$11.92	\$10.48
			Expense % change	-12.23%	5.05%	32.57%	13.72%
	Brooklyn	2,249	Income	\$19.22	\$28.56	\$42.57	\$43.25
			Income % change	0.00%	3.89%	17.28%	8.02%
			Expense	\$3.58	\$5.96	\$9.89	\$11.56
			Expense % change	-12.66%	4.07%	28.26%	11.21%
	Queens	2,522	Income	\$21.71	\$32.67	\$50.65	\$257.55
			Income % change	-0.65%	4.92%	18.95%	8.89%
			Expense	\$3.71	\$6.69	\$11.34	\$155.73
			Expense % change	-11.25%	5.01%	30.24%	12.29%
Staten Island	438	Income	\$16.27	\$26.05	\$39.29	\$35.23	
		Income % change	-1.14%	3.55%	16.77%	7.24%	
		Expense	\$2.91	\$5.23	\$9.00	\$7.75	
		Expense % change	-13.81%	4.14%	32.64%	10.15%	

Notes:

Income = Gross Income per square foot

Expense = Total Expense per square foot

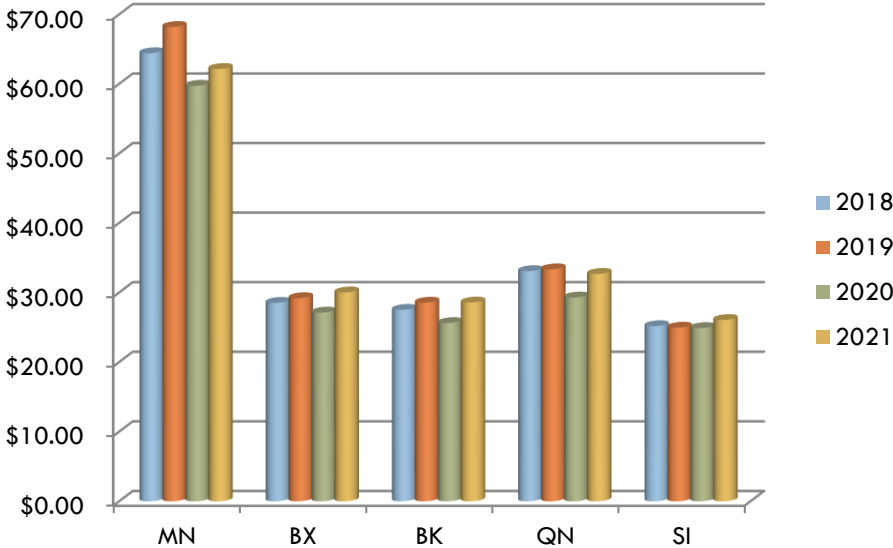
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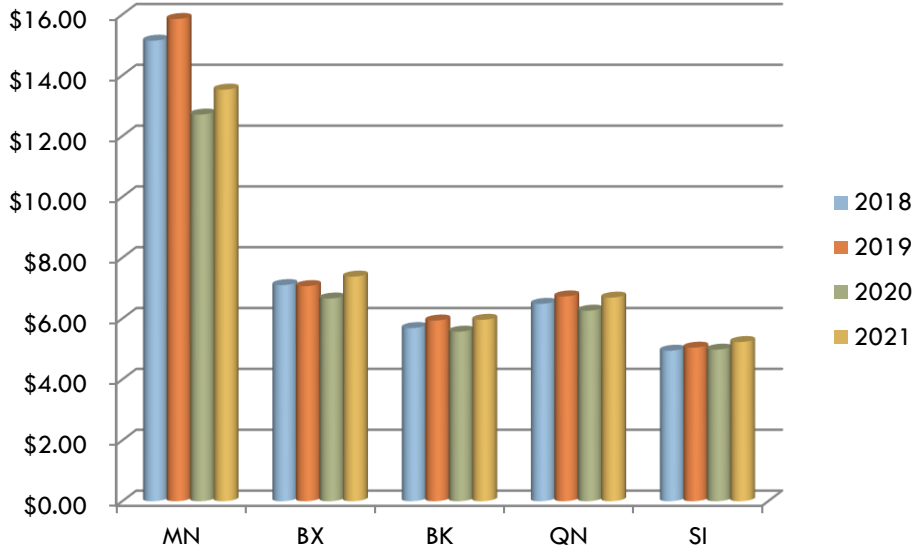
RPIE 2018 - 2021

Retail Properties by Borough

Median Income Per Square Foot



Median Expense Per Square Foot



Number of Filings

	2018	2019	2020	2021
Manhattan (MN)	2,343	2,157	1,457	1,428
Bronx (BX)	1,252	1,190	1,075	1,117
Brooklyn (BK)	2,466	2,449	2,121	2,249
Queens (QN)	2,769	2,679	2,404	2,522
Staten Island (SI)	505	508	440	438

Does not include outlier filers and /or partial year filers

Guideline Income, Expense, and Cap Rate Distributions

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Major Building Categories	Variable	25th Pctl	50th Pctl	75th Pctl	Mean
INDUSTRIAL	Income	\$15.78	\$18.90	\$22.93	\$20.33
	Expense	\$3.10	\$4.28	\$5.58	\$4.54
	Cap Rate	14.25%	14.26%	14.29%	14.11%
OFFICE	Income	\$29.23	\$35.95	\$50.20	\$43.93
	Expense	\$6.42	\$9.15	\$13.81	\$11.51
	Cap Rate	14.95%	15.15%	15.16%	14.80%
RENTAL	Income	\$17.13	\$23.25	\$38.55	\$30.01
	Expense	\$8.28	\$10.48	\$13.86	\$11.60
	Cap Rate	12.47%	12.79%	13.43%	13.06%
RETAIL	Income	\$28.39	\$37.06	\$52.74	\$47.69
	Expense	\$5.47	\$7.96	\$11.57	\$9.87
	Cap Rate	15.01%	15.33%	16.15%	15.21%

Notes:

Income = Gross Income per square foot

Expense = Total Expense per square foot

FY24 Capitalization Rate Methodology Tax Class 2

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- Capitalization Rate based on Ellwood formula

$$R_o = Y_o - \Delta_n^{(an)}$$



Fallout Capitalization Rate = return *on* capital (dividend yield) - return *of* capital (capital gain/loss)



Capitalization Rate based on earnings



- the higher the growth rate, the lower the fallout Capitalization Rate, the more valuable the property

*Guideline Cap rates will not reflect future property appreciation

FY24 Capitalization Rate Methodology Tax Class 2

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- R_o and $\Delta_n^{(an)}$ are **not** estimated for each property but are guideline curves that reflect median relationships with income.
- R_o is estimated by a median regression of market Capitalization Rate on income per square foot.
- $\Delta_n^{(an)}$ is estimated by a median regression of annual sales growth of Class 2 rentals that were purchased between 1985 - 2022 and sold between 2012 - 2022.

FY24 Capitalization Rate Methodology Tax Class 2

- Guideline curves are applied on *rental filer population*

FY24 Market Cap Rate and Annual Growth Rate

Variable	25th Pctl	50th Pctl	75th Pctl	Mean
Ro	2.11%	3.40%	4.65%	3.57%
Δ	3.15%	3.78%	4.74%	3.93%

FY24 versus FY23 Capitalization Rate

Variable	25th Pctl	50th Pctl	75th Pctl	Mean
Cap Rate FY24	6.93%	7.27%	8.00%	7.78%
Cap Rate FY23	6.87%	7.20%	7.87%	7.48%
Cap Rate FY24- Cap Rate FY23	0.06%	0.07%	0.13%	0.30%

FY24 Capitalization Rate Formulas and Example Tax Class 2

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- Capitalization Rate used reflects earnings-based return

$$Y_o = R_o + \Delta_n^{(a_n)}$$

$$R_o = \exp(-1.06603 * \ln(\text{income psf}))$$

$$\Delta_n^{(a_n)} = -0.030236745 + 0.02144592 * \ln(\text{income psf})$$

Example: income psf = **\$23.03**

$$R_o = \exp(-1.06603 * \ln(23.03)) = 3.53\%$$

$$\Delta_n^{(a_n)} = (-0.030236745 + 0.02144592 * \ln(23.03)) = 3.70\%$$

$$Y_o = 3.53\% + 3.70\% = **7.23%**$$

FY24 Capitalization Rate Methodology Tax Class 4

Major Building Category	Flat Cap Rate Adjustment from FY23 (BPS)
OFFICE – MANHATTAN SOUTH OF 110TH STREET CLASS A/B/T AND DOWNTOWN BROOKLYN CLASS A	-70
OFFICE – MANHATTAN SOUTH OF 110TH STREET Non CLASS A/B/T	-70
OFFICE – MANHATTAN NORTH OF 110TH STREET AND OUTER BOROUGHES	-70
RETAIL – MANHATTAN SOUTH OF 125TH STREET AND DOWNTOWN BROOKLYN	-80
RETAIL – MANHATTAN NORTH OF 125TH STREET AND OUTER BOROUGHES	-10
INDUSTRIAL	-10
GARAGE	-10

- Capitalization Rate are given a flat rate adjustment from FY23