



REINVESTMENT
FUND



Richmond Area Market Value Analysis 2022

March 31, 2022

Updated August 18, 2022

About Reinvestment Fund

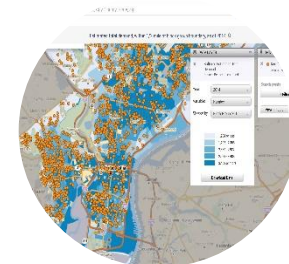
- We are a national mission-driven financial institution that creates opportunity for underserved people and places through partnerships. We marshal the capital, analytics, and expertise necessary to build strong, healthy, and more equitable communities.
- Since 1985, Reinvestment Fund has made **\$2.4 billion** in cumulative investments and loans.
- We are supported by **830 investors** that include individuals, foundations, religious institutions, financial institutions, civic organizations and government.
- How we work:



Lending and Investing



Policy Solutions

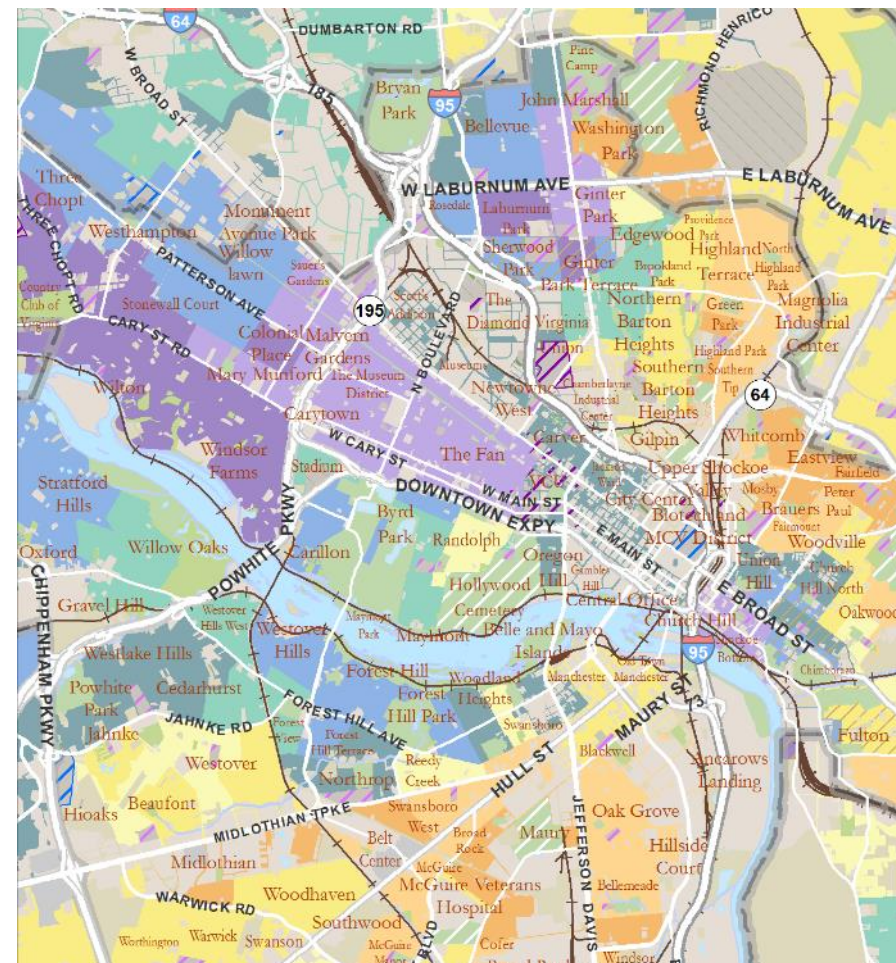


PolicyMap

The Market Value Analysis

The **Market Value Analysis (MVA)** is a tool to help residents and policymakers identify and understand the elements of their local real estate markets. It is an objective, data-driven tool built on local administrative data and validated with local experts.

With an MVA, public officials and private actors can more precisely target intervention strategies in weak markets and support sustainable growth in stronger markets.



Who is Using the MVA

MVAs have been funded by government agencies, local foundations, and financial institutions in cities and counties around the country:

Allegheny County, PA	Irving, TX	Pittsburgh, PA
Atlantic City Area, NJ	Jacksonville, FL	Prince George's County, MD
Baltimore, MD	Kansas City, MO	Reading Area, PA
Bethlehem, PA	Milwaukee, WI	Richmond, VA
Camden, NJ	Mt. Vernon, NY	San Antonio, TX
Dallas, TX	New Jersey (8 regions)	Selma, AL
Denton, TX	New Orleans, LA	St Louis, MO
Detroit, MI	Newark, NJ	State of Delaware
Houston, TX	Northampton County, PA	Washington, DC
Indianapolis, IN	Philadelphia, PA	Wilmington, DE

Our Normative Assumptions

When analyzing markets we begin with these principles:

- Public **subsidy is scarce**; acting alone, subsidies cannot create a market
- Public policy and subsidy must **leverage private investment** or create conditions for investment to occur
- In distressed markets, **build from strength** by investing near strong assets
- All **residents are customers** with an expectation of quality public services and amenities
- The best decisions are based on the sound and **objective analysis** of quantitative and qualitative data

The MVA Process

1

Acquire **local administrative data** and geocode to Census block group geographies.

2

Manually inspect and **validate data layers** by driving through the area.

3

Use statistical **cluster analysis** to identify areas with common attributes.

4

Manually inspect areas for conformity with **local experts** to assess fit.

5

Alter parameters; **re-solve and re-inspect** until model accurately represents area.

6

Summarize and describe the characteristics of each market.

Lessons from 15+ years of experience

Validating Data is Critical.

Researchers must systematically visit and observe neighborhoods in the city to understand the data and final model.

Geographic Scale Matters.

MSA and Census tract geographies are too large to accurately reflect the nuances of local real estate markets.

One Size Does Not Fit All.

MVA components and models share some similarities across cities but must be customized to the unique traits of each city.

Integrate Local Knowledge.

All models are tested with local experts to incorporate qualitative feedback from each geography.



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The 2022 Richmond Area Housing Market Indicators

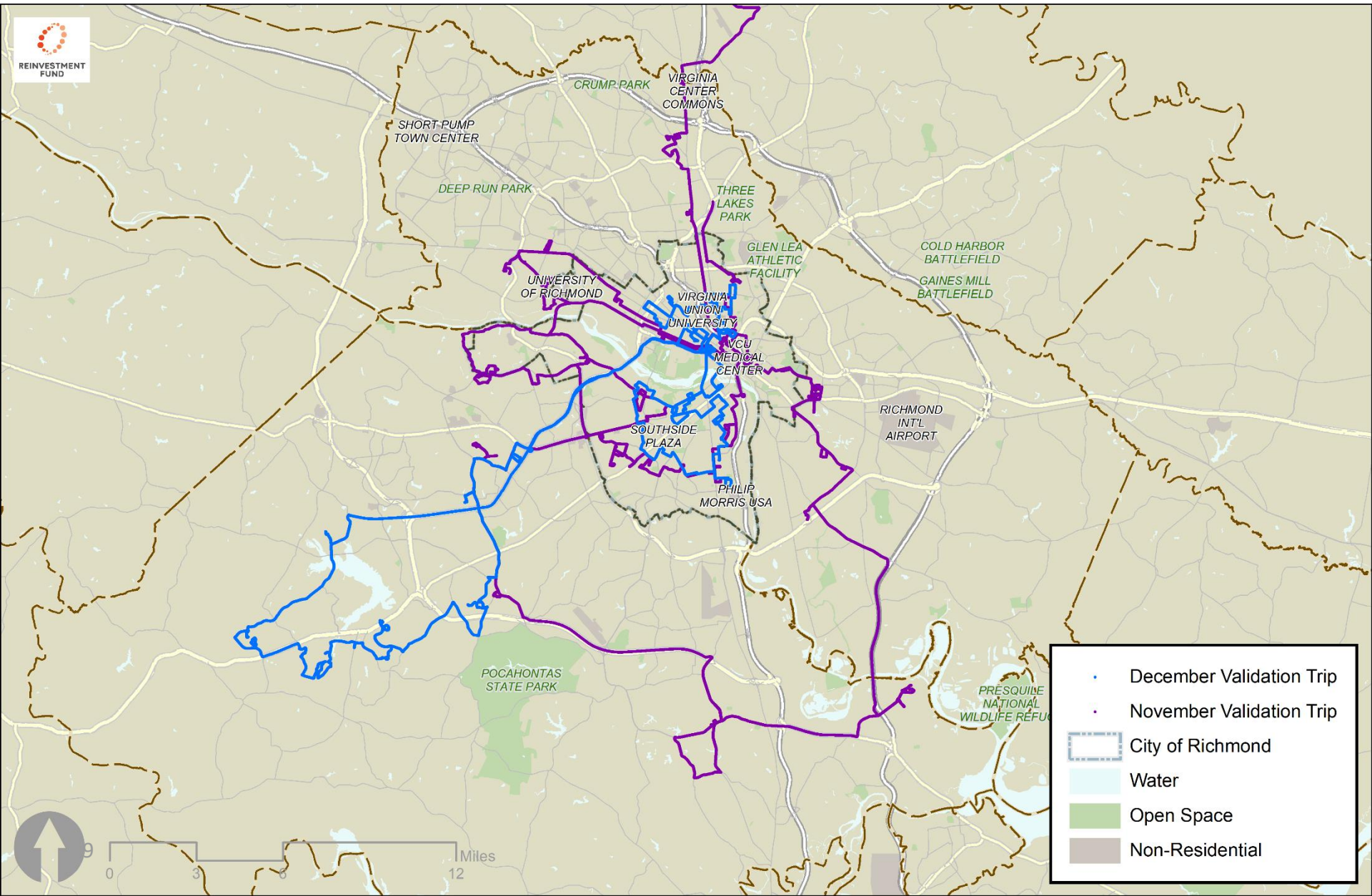
Richmond Area MVA Market Indicators

Market Indicators in the Previous Model

Market Indicators for 2022 Analysis

Property Values and Investment	Median Sales Price, 2015-2016 (Source: MLS)	Median Sales Price, compared condo and non-condo sales and used the higher of the two. 2019-21 (Source: MLS)
	Variance of Sales Price, 2015-16 (Source: MLS)	Variance of Sales Price 2019-21 (Source: MLS)
	Percent of Residential Parcels Built 2008 or after (Source: County and Municipal Parcel Files)	Percent of Residential Parcels Built 2008 or after (Source: American Community Survey, County and Municipal Parcel Files)
	Percent of Residential Parcels with Permits, 2015-16 (Source: County and Municipal Parcel files and Permit Offices)	Percent of Residential Parcels with Permits (Source: County and Municipal Parcel files and Permit Offices)
Distress and Vacancy	Share of Residential Addresses that are Vacant, 2015-16 (Source: Valassis)	Share of Residential Addresses that are Vacant (Source: HUD)
	Percent of Residential Properties Sold by Banks, 2015-16 (Source: RF Analysis of MLS Sales Data)	Percent of Residential Properties Sold by Banks (Source: RF Analysis of MLS Sales Data)
Neighborhood and Housing Characteristics	Density of Housing Units (Source: American Community Survey, Parcel Files)	Density of Housing Units (Source: American Community Survey, Parcel Files)
	Percent Owner Occupied Households (Source: American Community Survey, 2011-2015)	Percent Owner Occupied Households (Source: American Community Survey)
	Share of Households with Rental Subsidy (Source: HUD Portrait of Subsidized Housing 2016, Richmond Housing Authority, HUD LIHTC database)	Share of Households with Rental Subsidy (Source: HUD Portrait of Subsidized Housing, Richmond Housing Authority, HUD LIHTC database)

Validation Route



- December Validation Trip
- November Validation Trip
- ▭ City of Richmond
- Water
- Open Space
- Non-Residential



Housing Market Indicators

Property Value and Investment

Disinvestment, Distress, and Vacancy

Neighborhood and Housing Characteristics

Indicators

Notes

Median Home Sale Price, 2019-2021Q3

Residential property transactions sold 2019 to 2021Q3 (Excludes non-arms length transactions) Source: Multiple Listing Service.

Variance of Home Sale Prices, 2019-2021Q3

Coefficient of variance of residential property transactions sold 2019 to 2021Q3 (Excludes non-arms length transactions) Source: Multiple Listing Service.

Residential Permit Activity, 2019 to 2021Q3

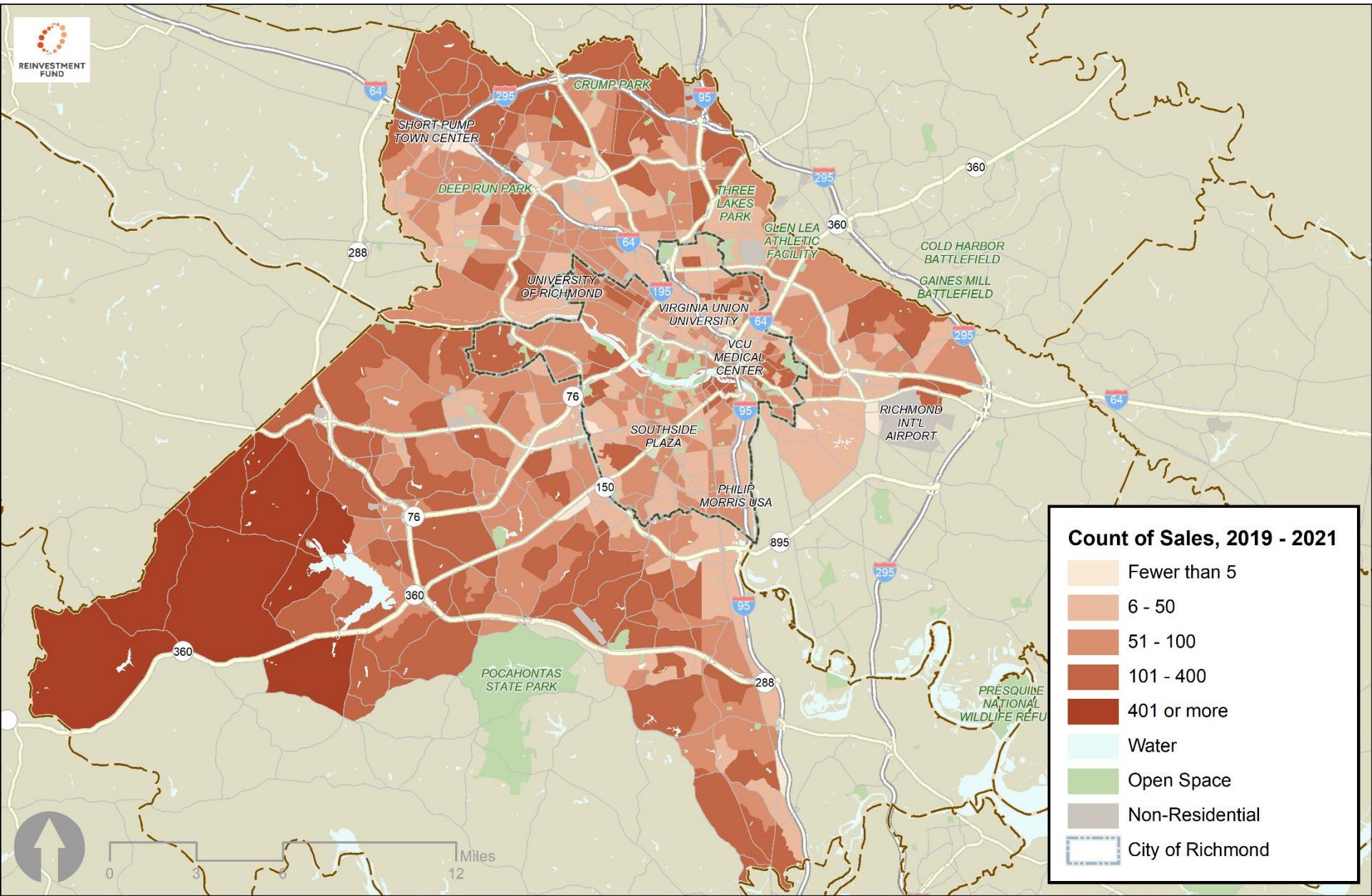
Count of residential parcels with renovation, addition or new construction permits as a share of all residential parcels. Source: City and County Building Departments

Residential Parcels Built 2012 or after

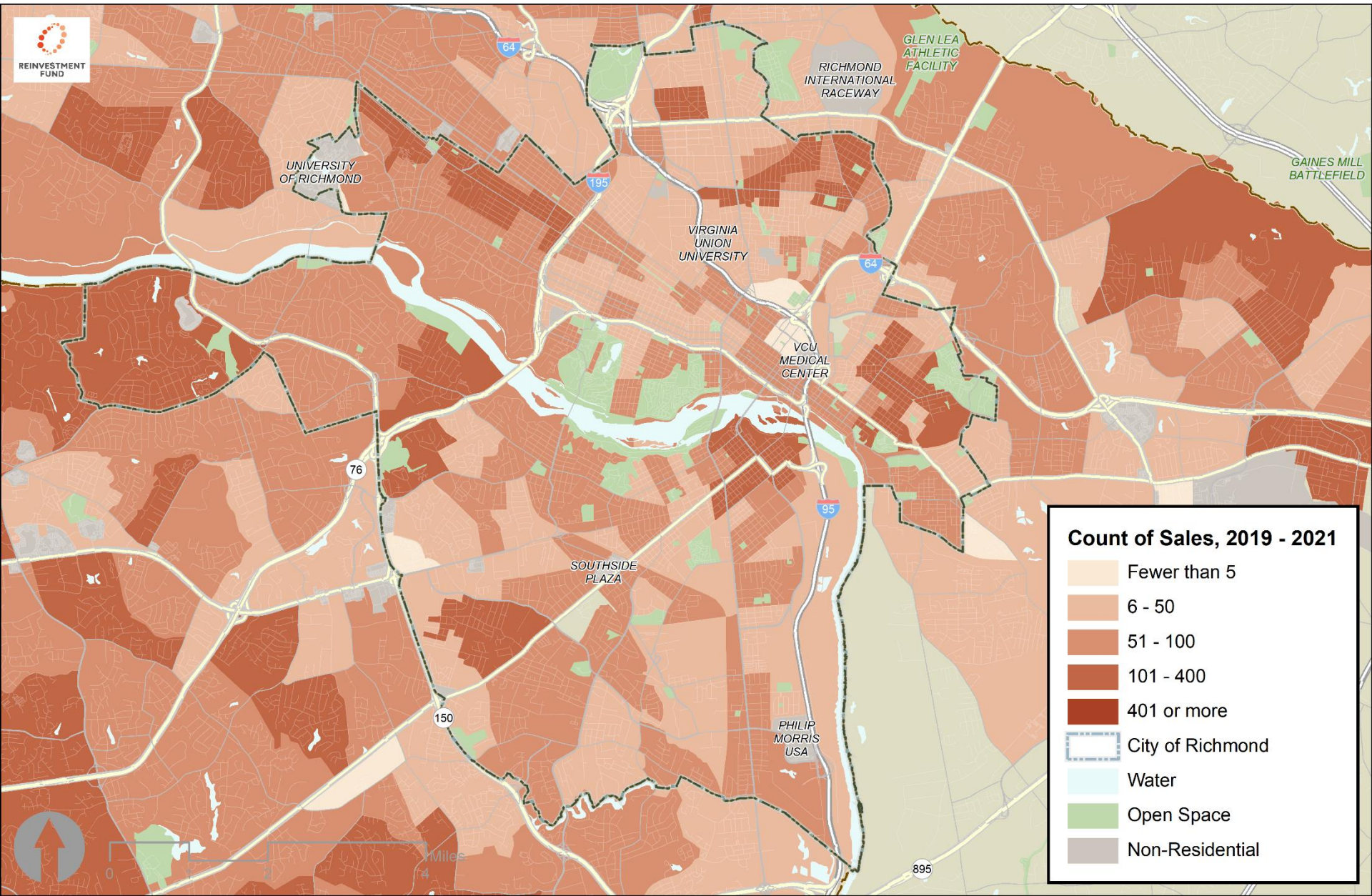
Count of residential parcels built on 2012 or after. Source: County and Municipal Parcel Files.



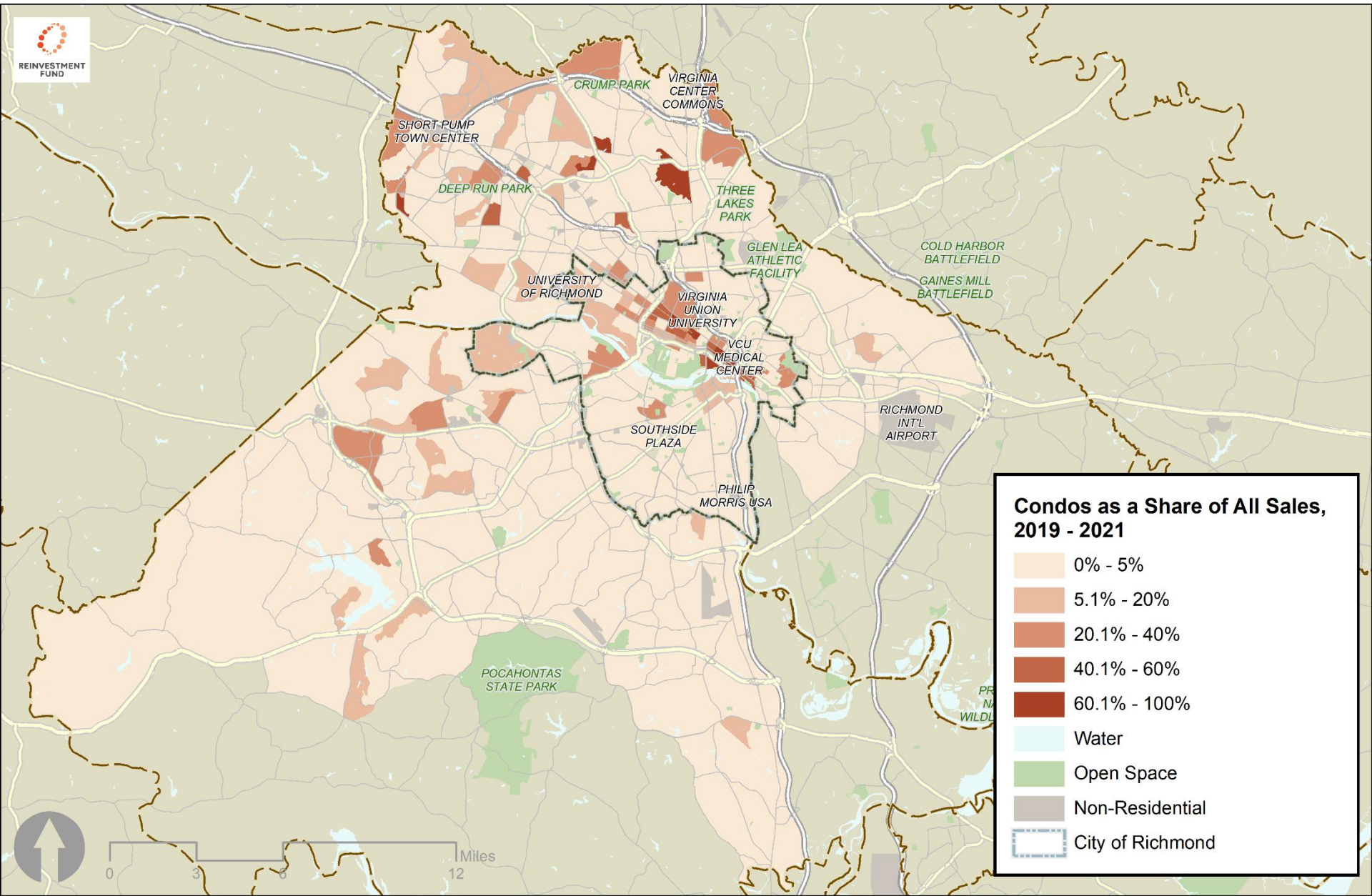
Investment: Sales Volume



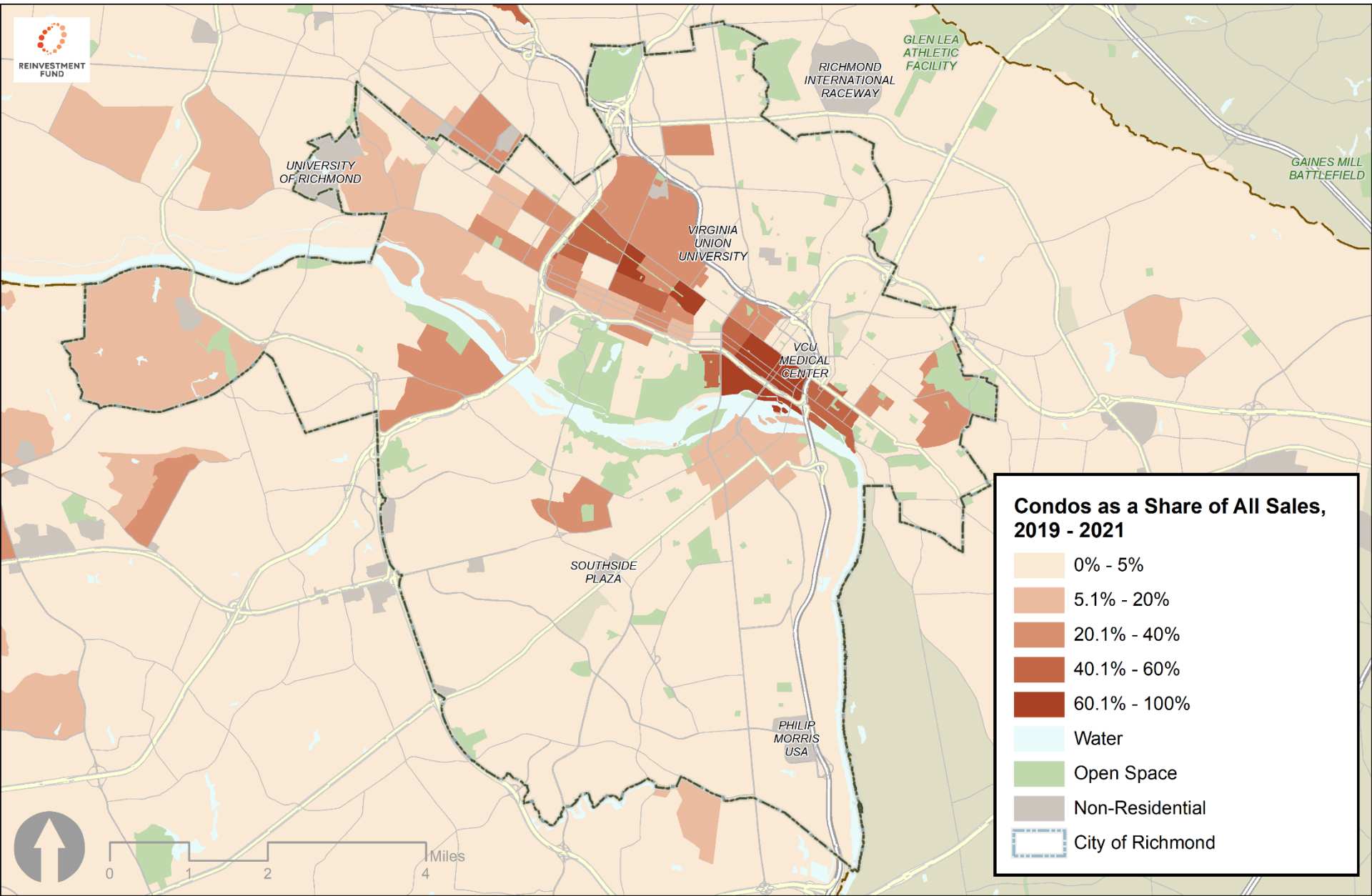
Investment: Sales Volume



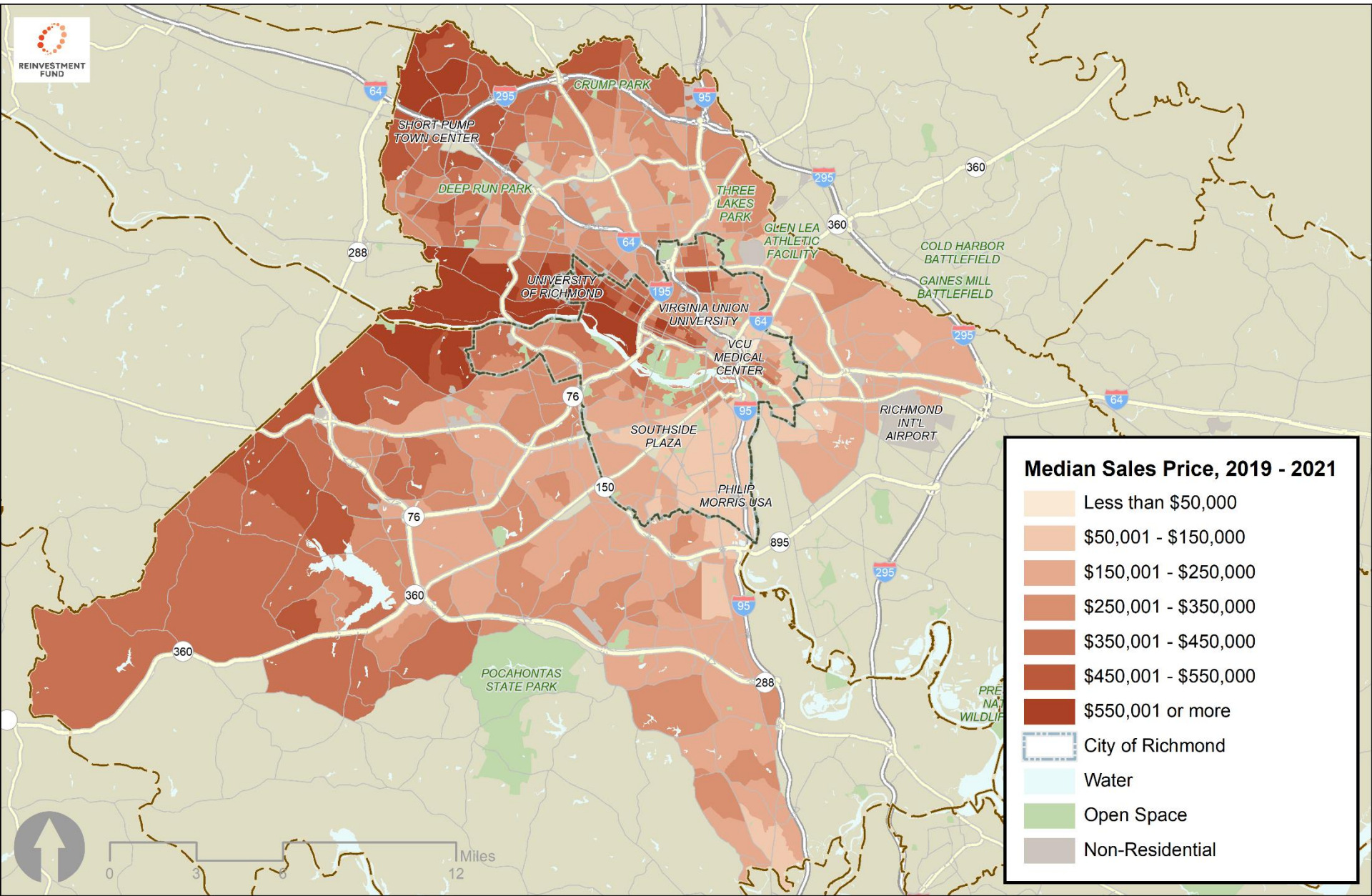
Investment: Condo Sales



Investment: Condo Sales



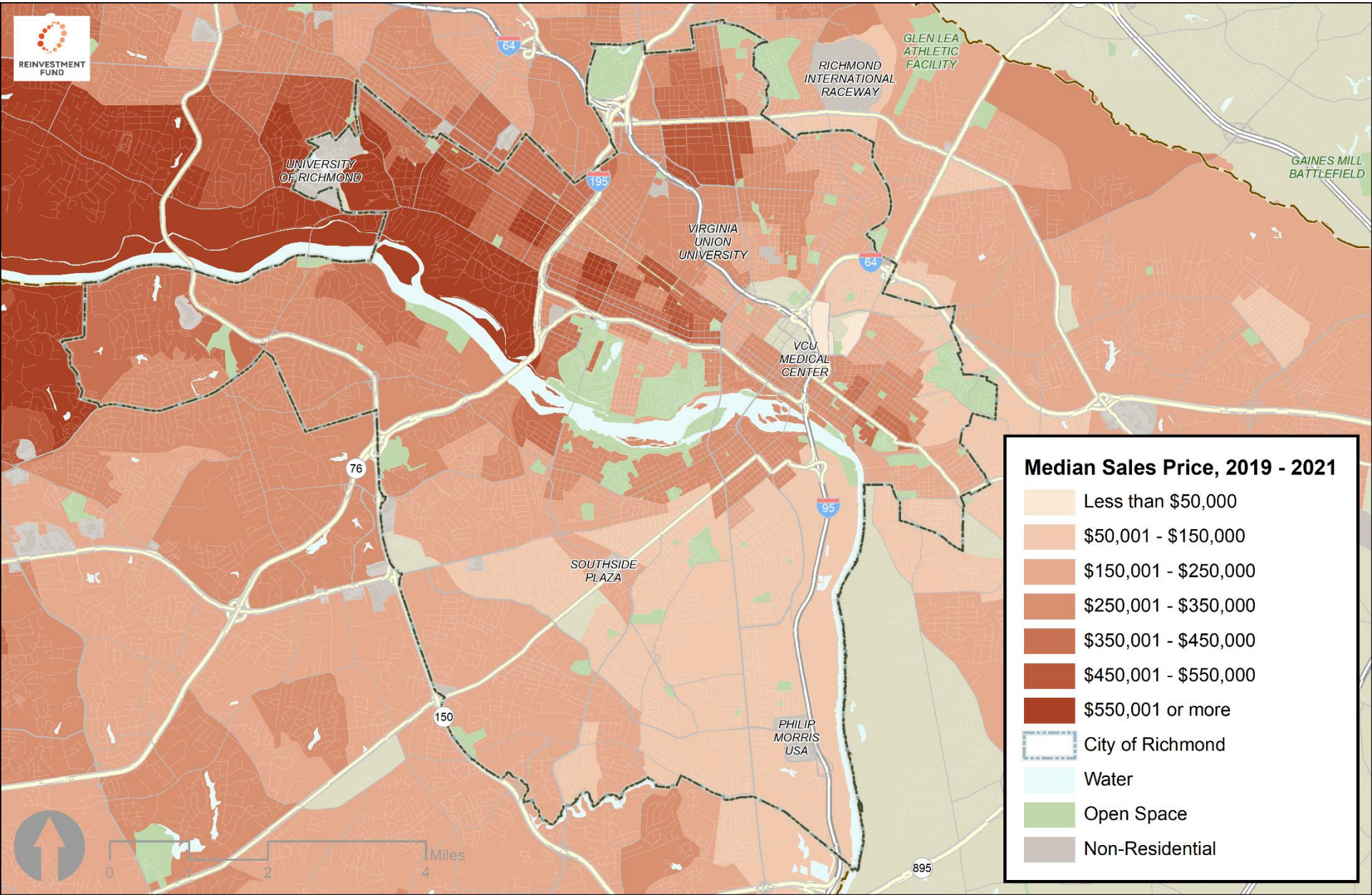
Investment: Median Sales Price



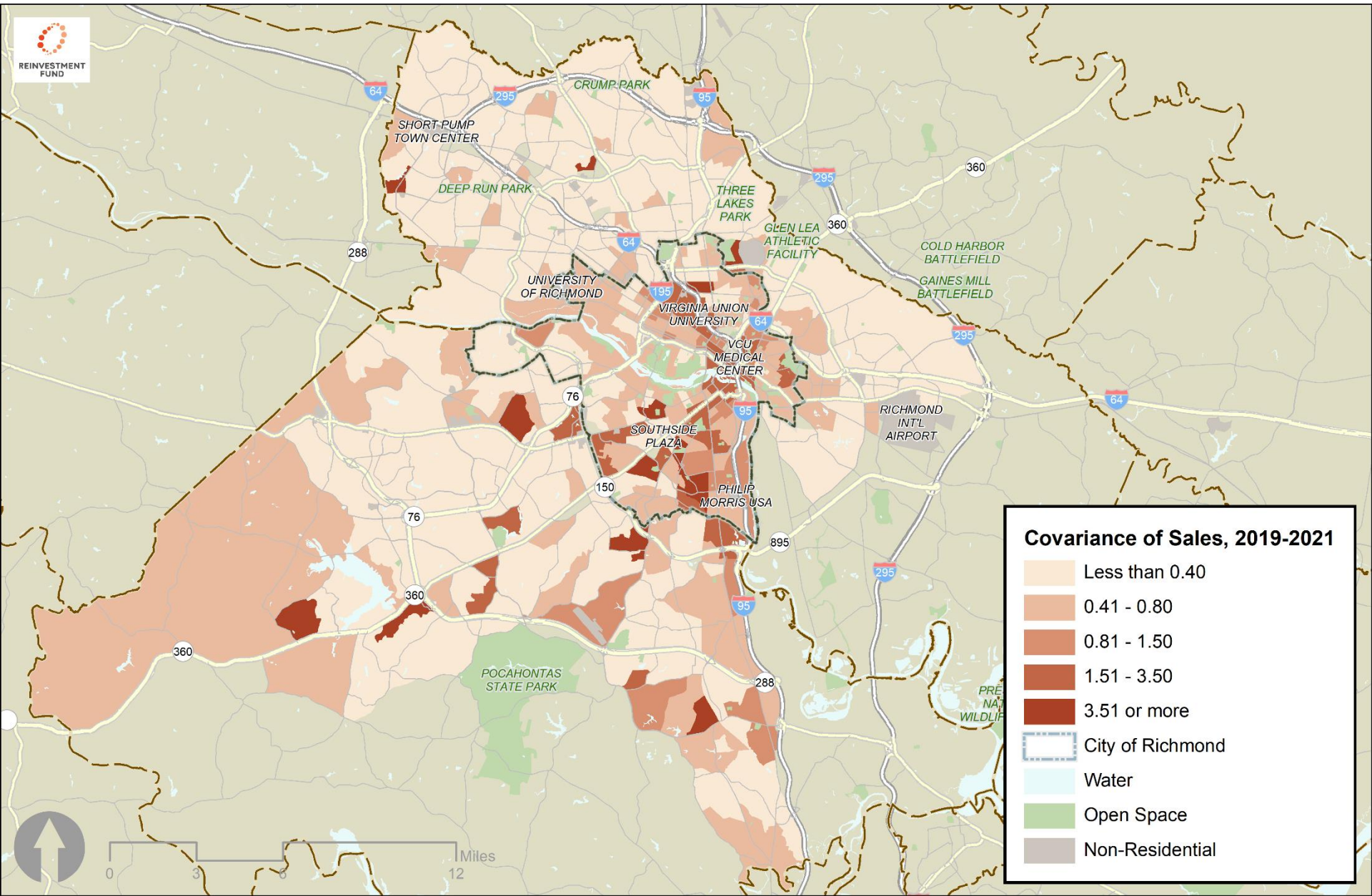
Median Sales Price, 2019 - 2021

- Less than \$50,000
- \$50,001 - \$150,000
- \$150,001 - \$250,000
- \$250,001 - \$350,000
- \$350,001 - \$450,000
- \$450,001 - \$550,000
- \$550,001 or more
- City of Richmond
- Water
- Open Space
- Non-Residential

Investment: Median Sales Price

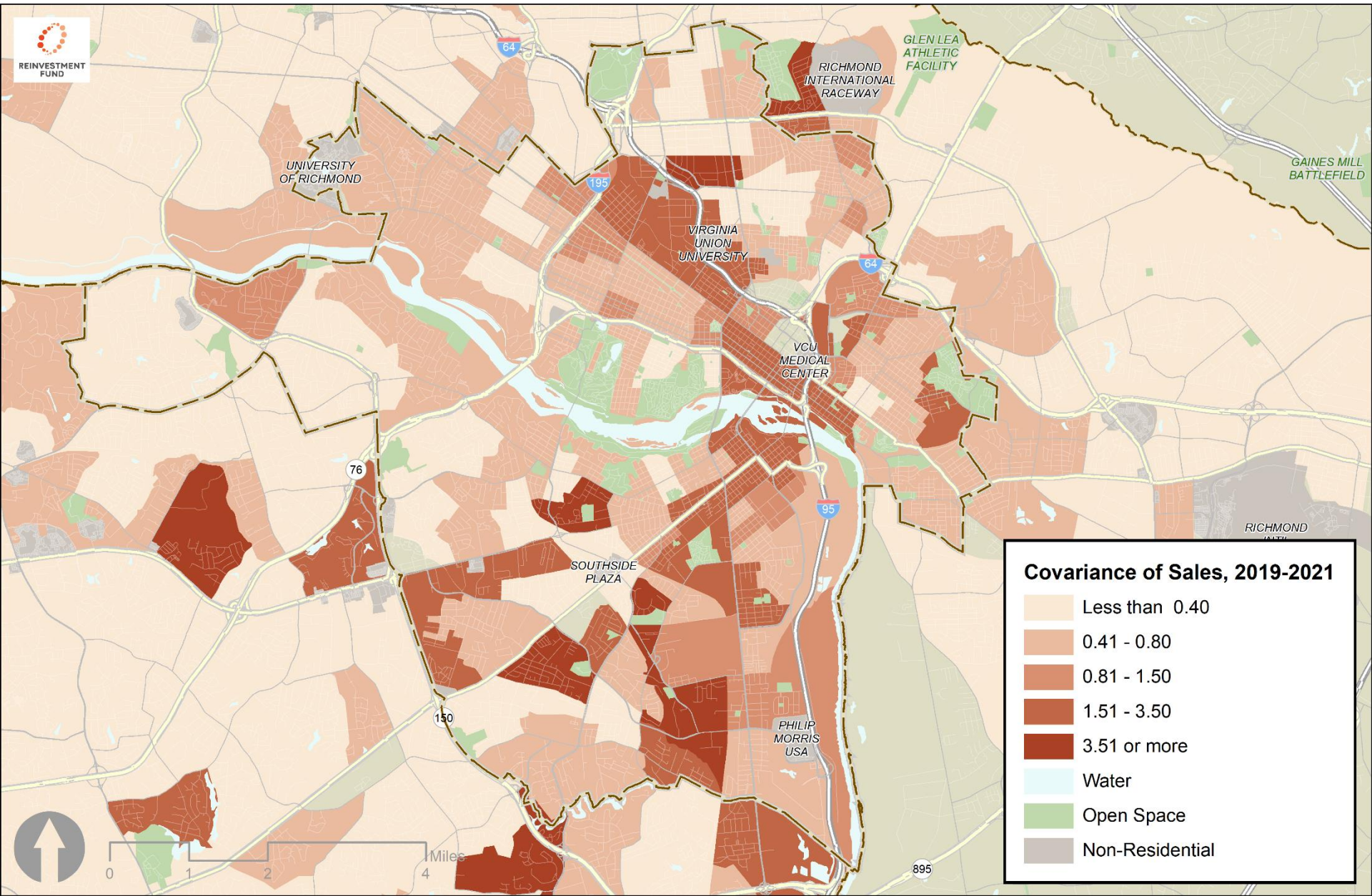


Investment: Covariance of Sales

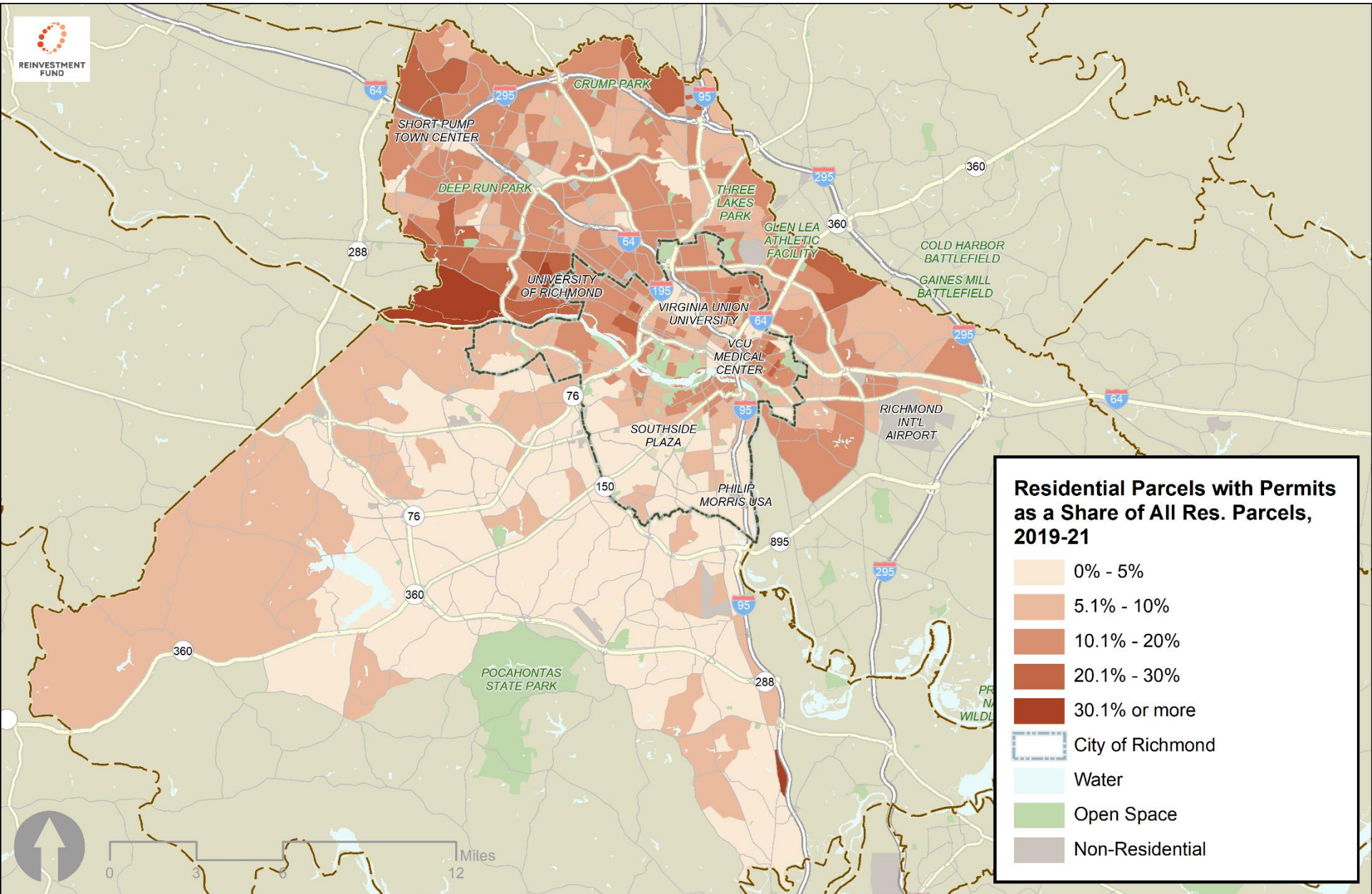


0 3 6 9 12 Miles

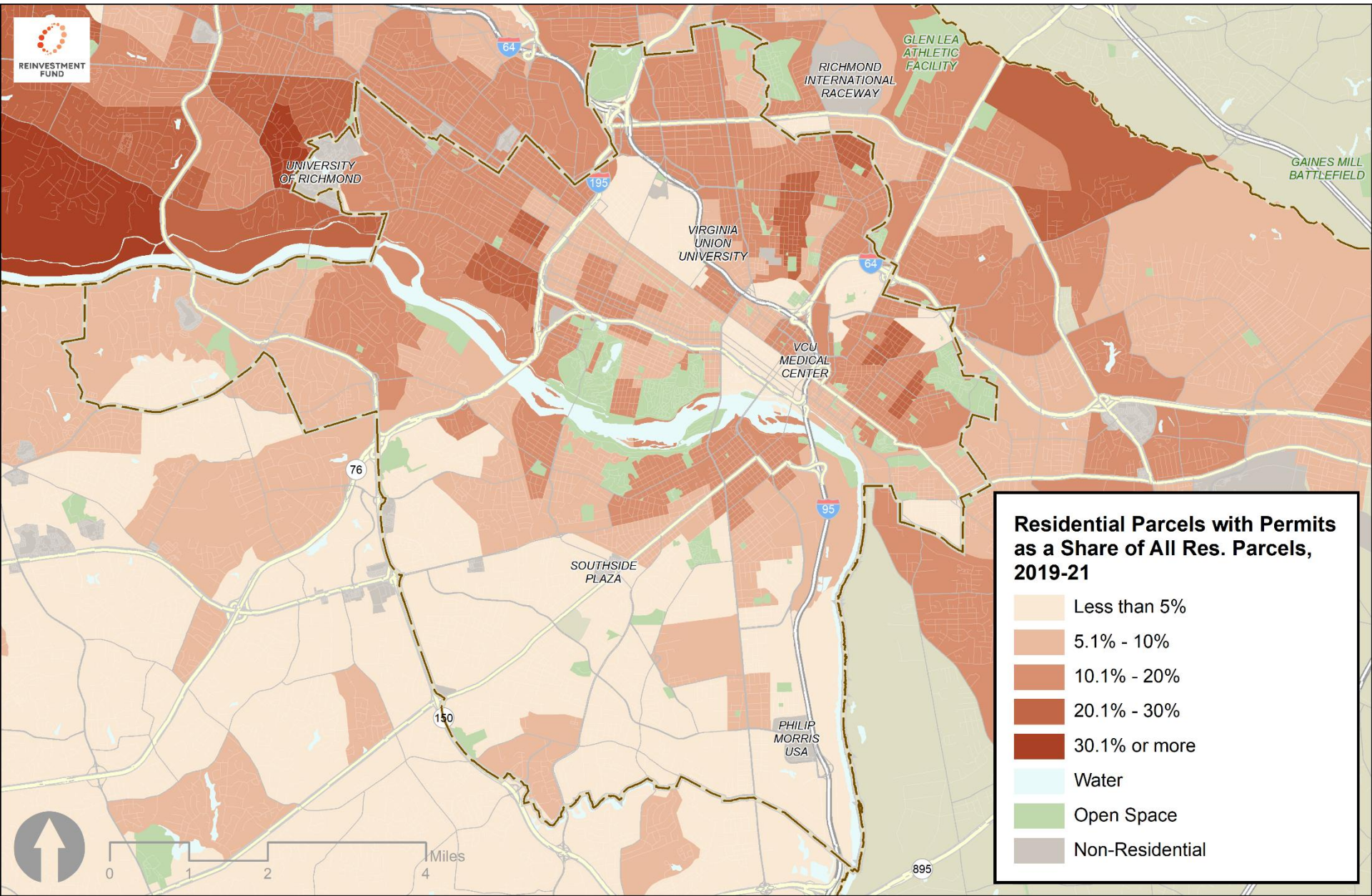
Investment: Covariance of Sales



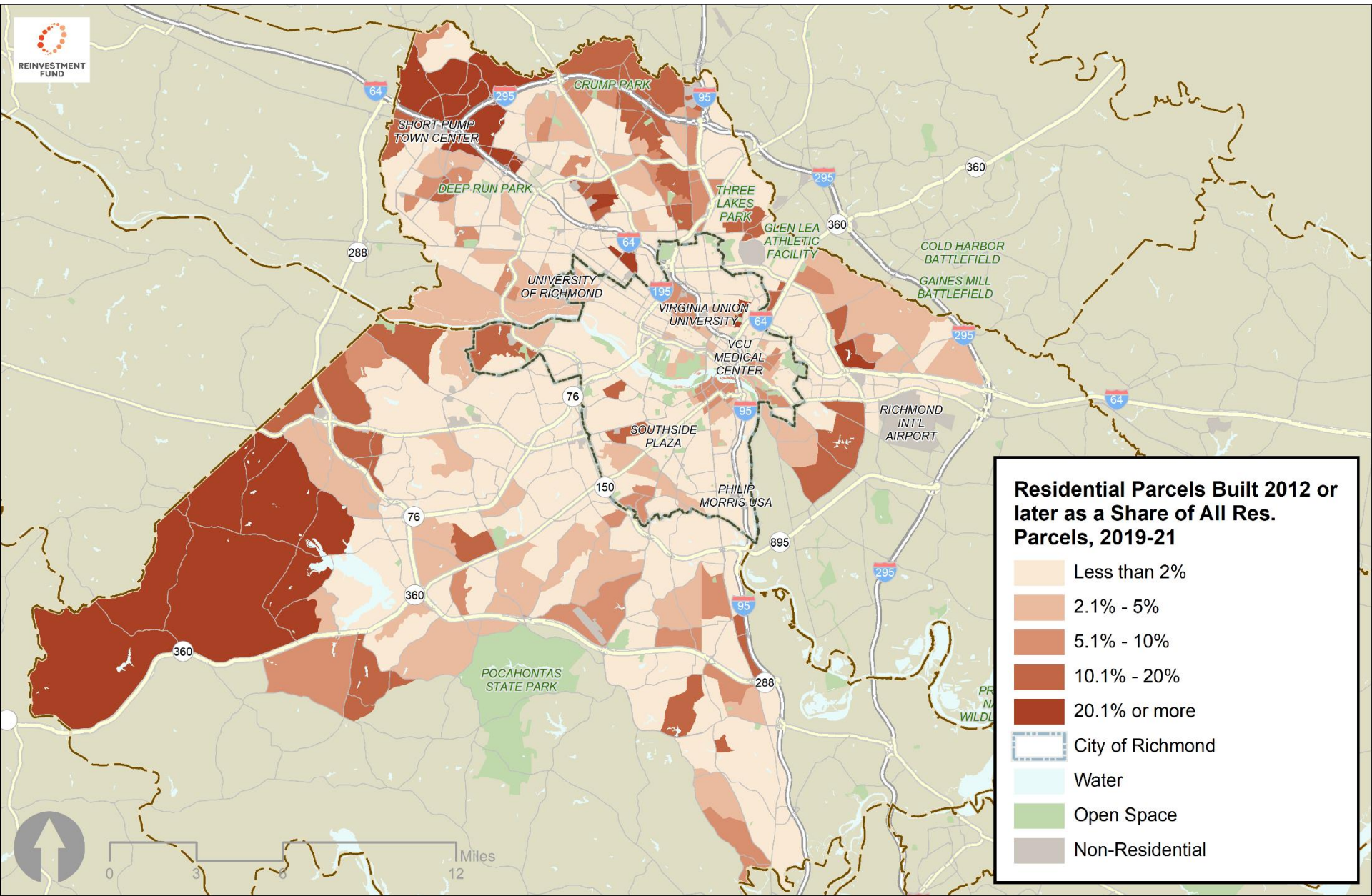
Investment: Permitting Activity



Investment: Permitting Activity



Investment: Newly Constructed Homes



Residential Parcels Built 2012 or later as a Share of All Res. Parcels, 2019-21

- Less than 2%
- 2.1% - 5%
- 5.1% - 10%
- 10.1% - 20%
- 20.1% or more

City of Richmond

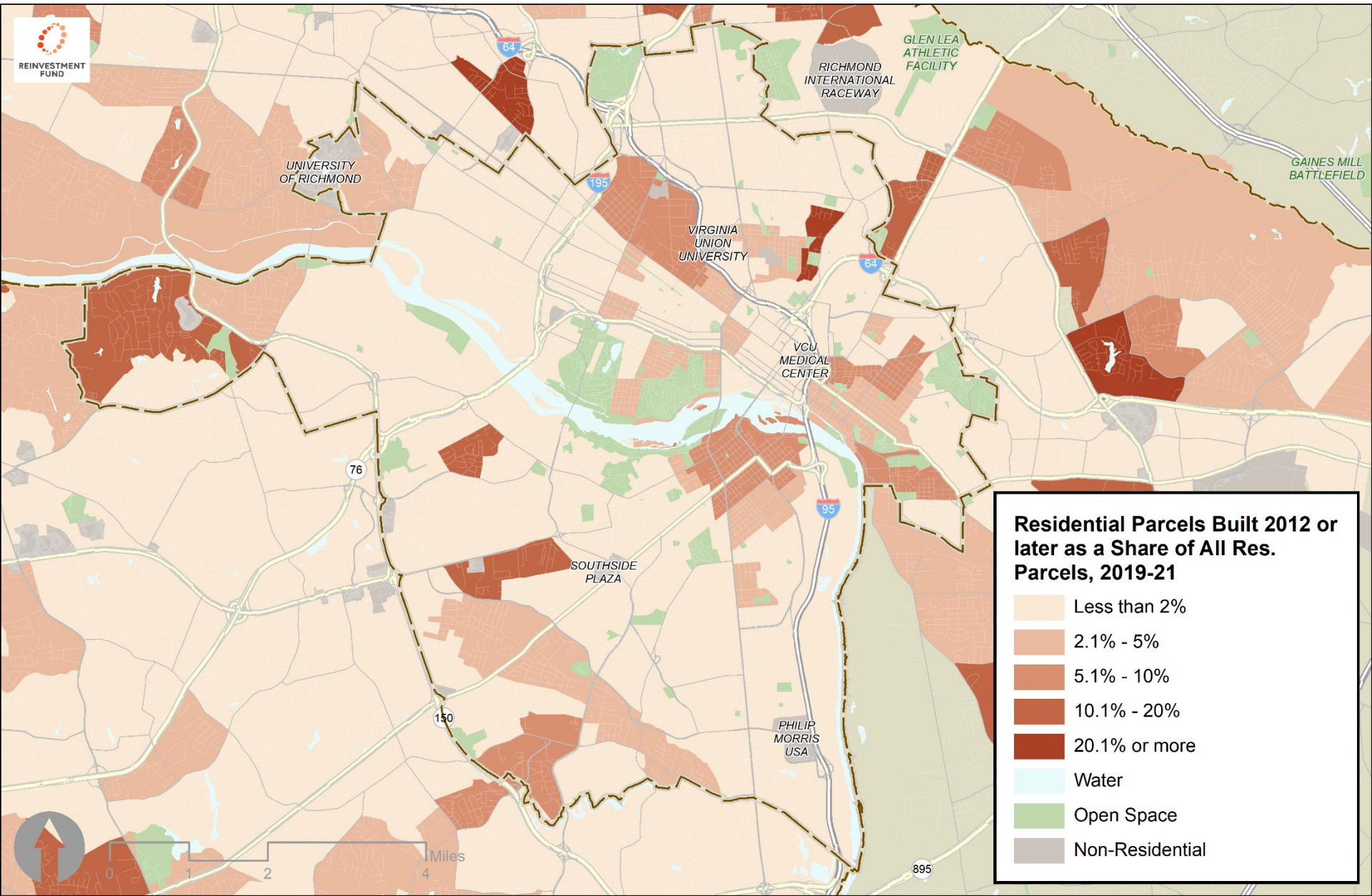
Water

Open Space

Non-Residential



Investment: Newly Constructed Homes



Housing Market Indicators

Property Value
and Investment

**Disinvestment,
Distress, and
Vacancy**

Neighborhood and
Housing
Characteristics

Indicators

Notes

Bank Sales,
2019-2021Q3

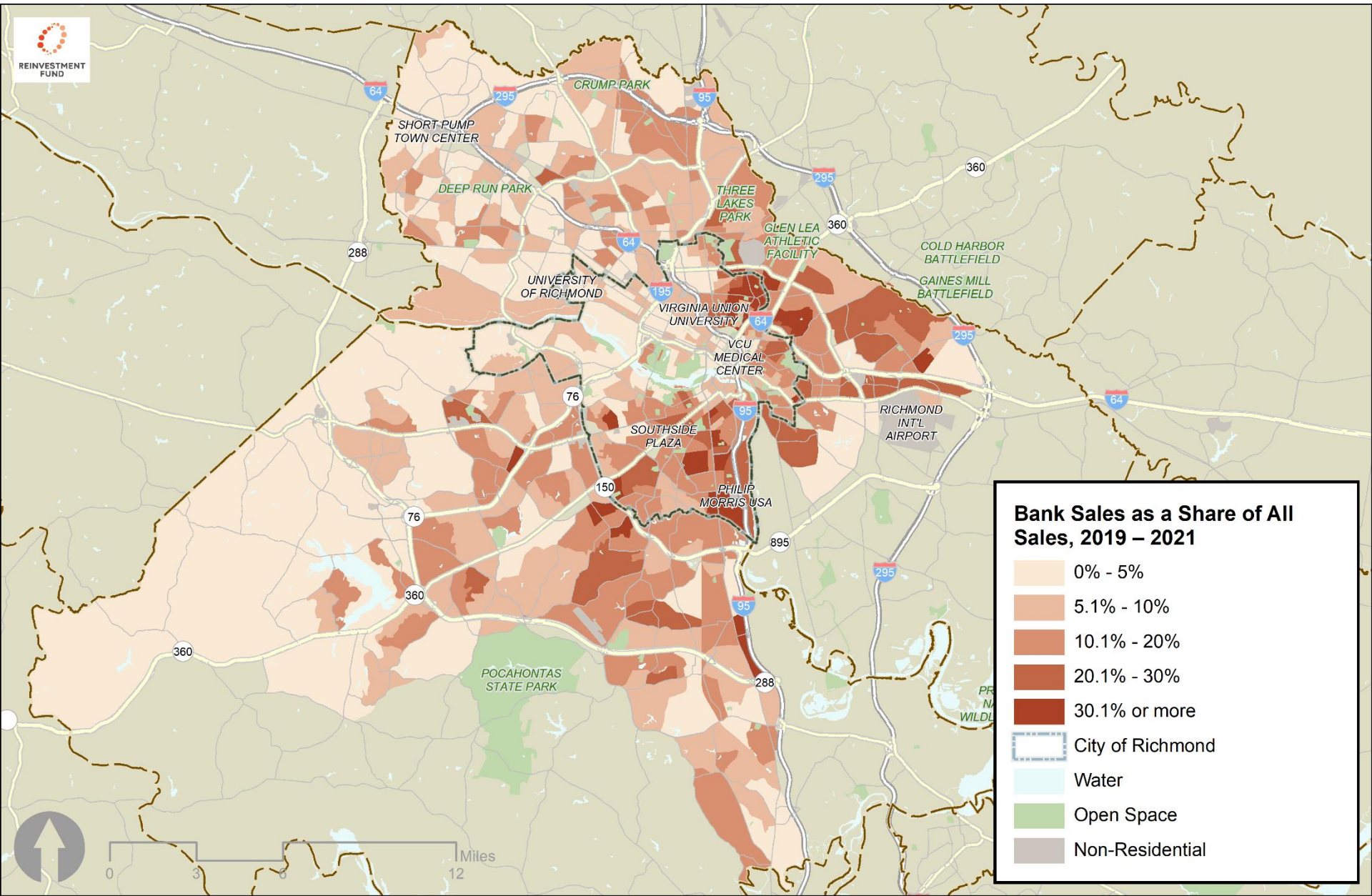
Bank sold residential properties as a share of all residential property transactions between 2019 and 2021Q3. Source: RF analysis of MLS sales data

Vacant Homes, 2021

Share of Residential Addresses that are Vacant
Source: Housing and Urban Developments analysis of United States Postal Service data.

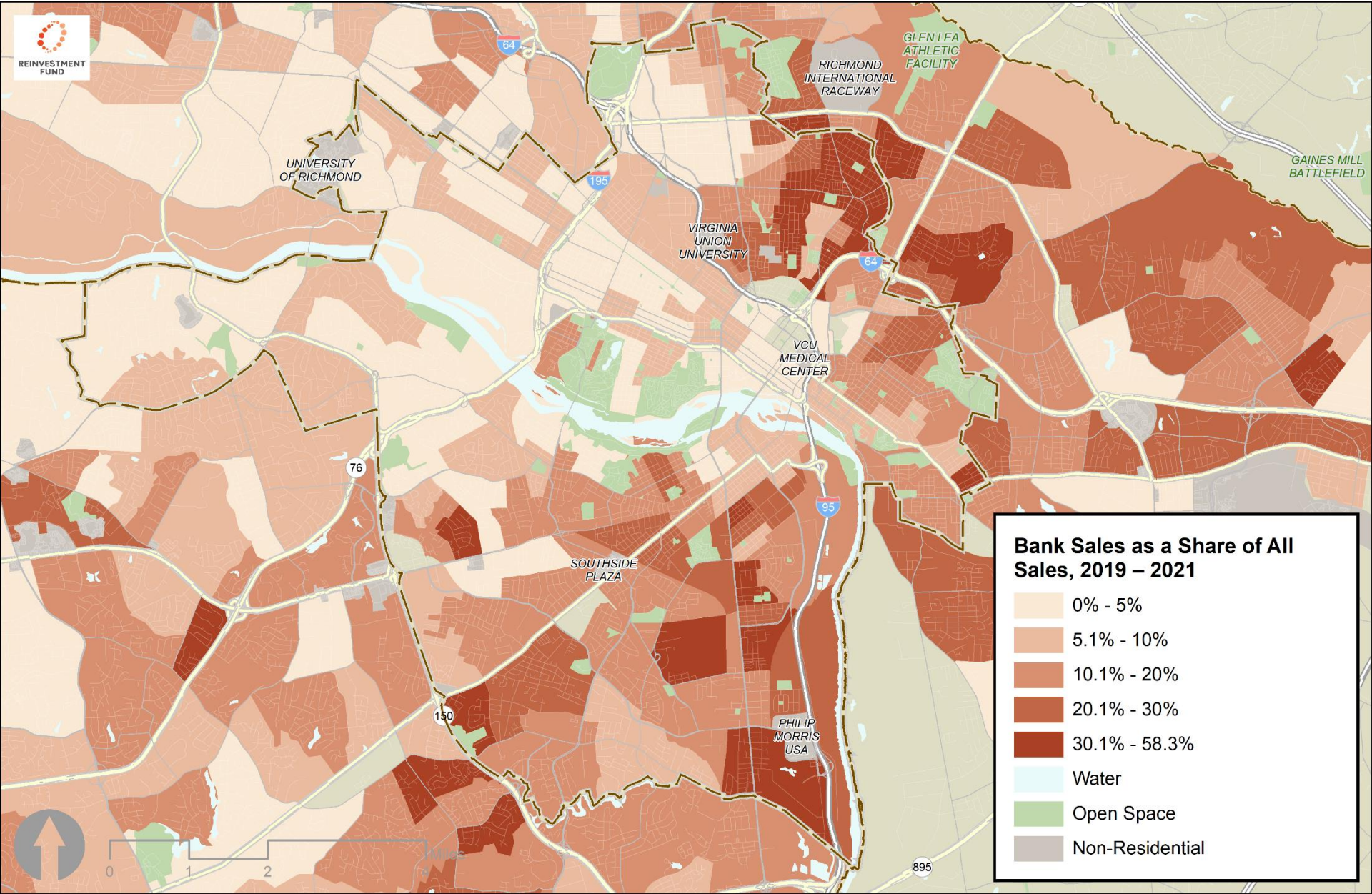


Disinvestment: Bank Sold Homes



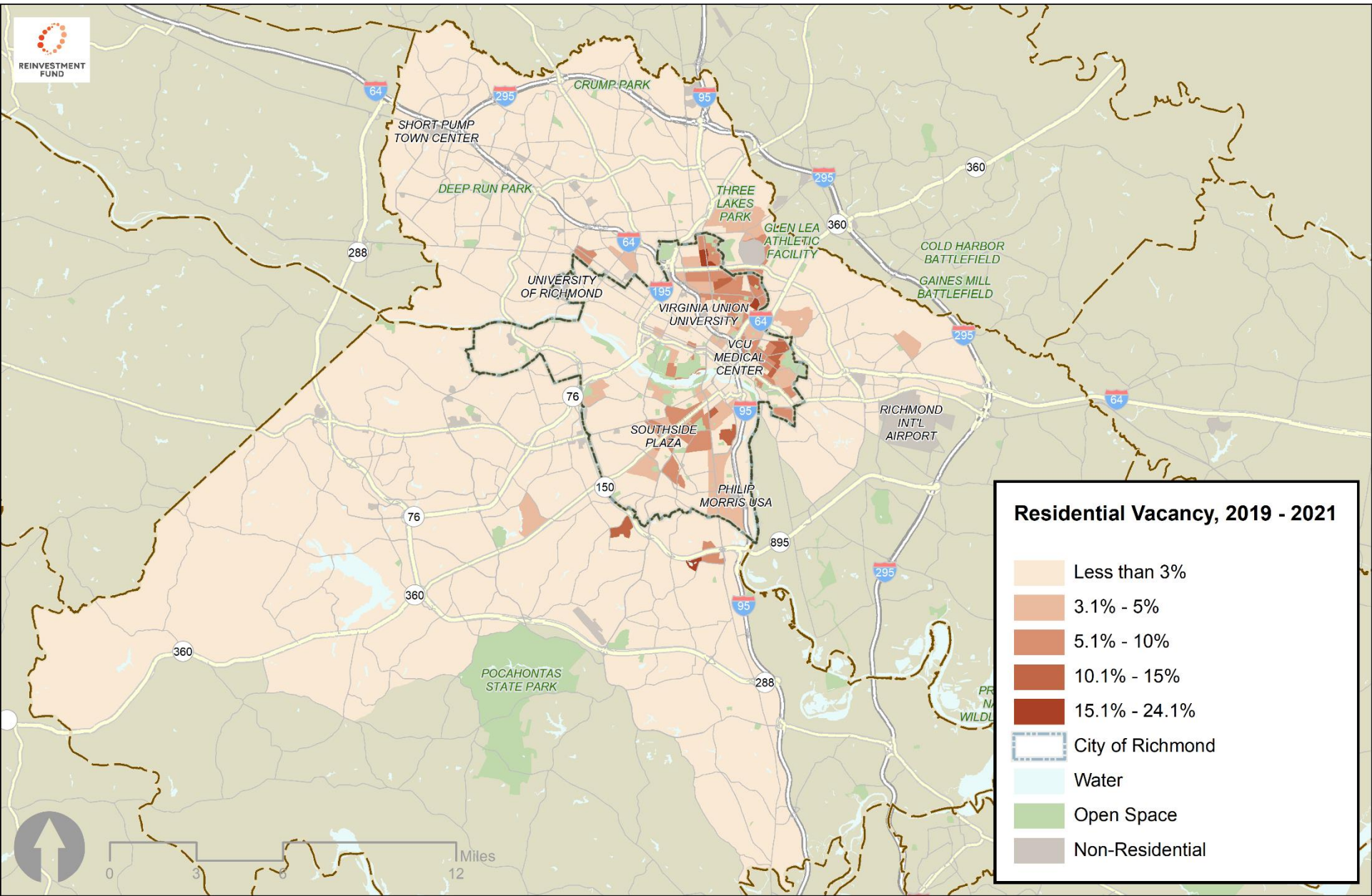
0 3 6 9 12 Miles

Disinvestment: Bank Sold Homes



895

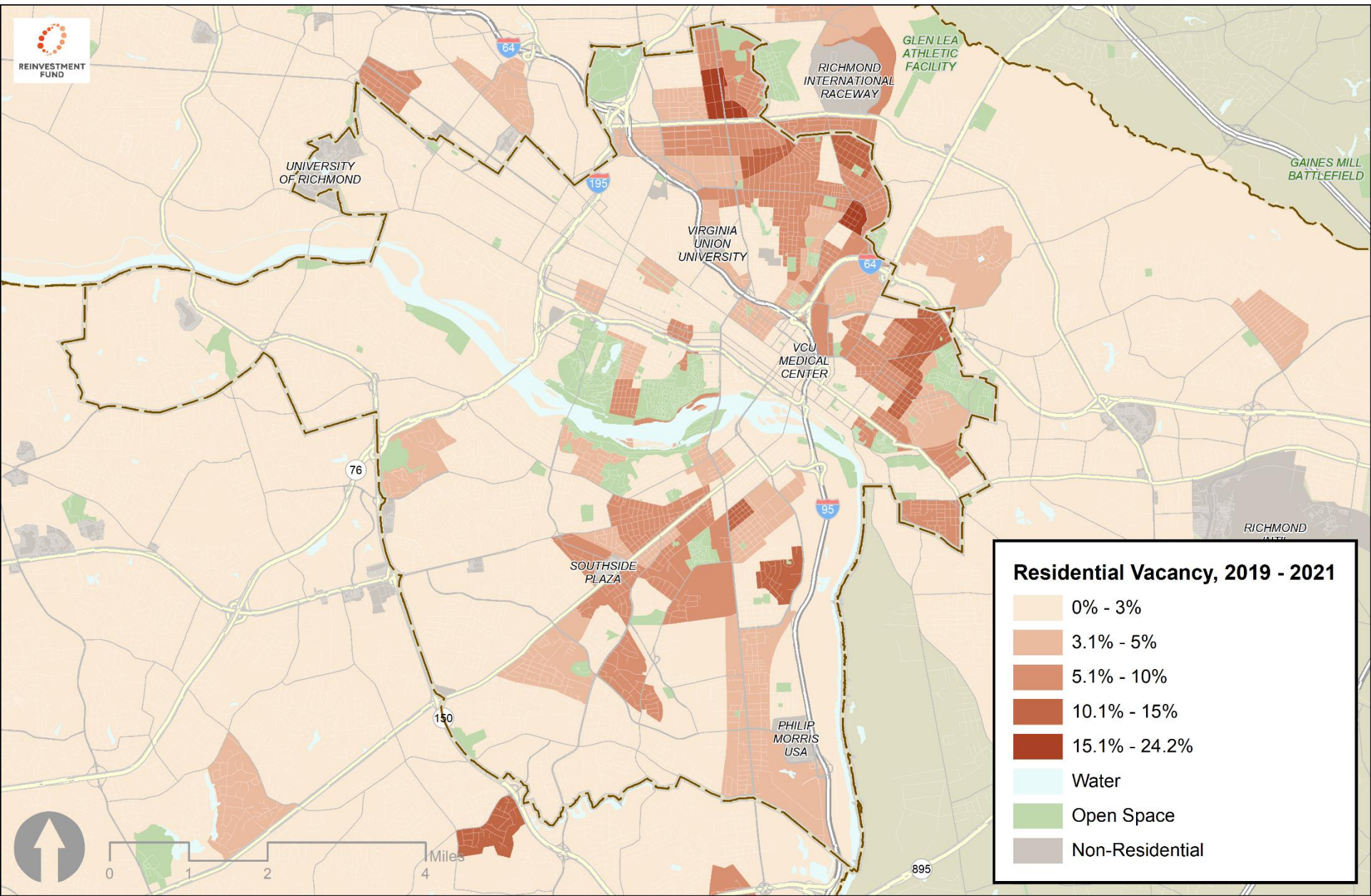
Disinvestment: Vacancy



Residential Vacancy, 2019 - 2021

- Less than 3%
- 3.1% - 5%
- 5.1% - 10%
- 10.1% - 15%
- 15.1% - 24.1%
- City of Richmond
- Water
- Open Space
- Non-Residential

Disinvestment: Vacancy



Housing Market Indicators

Property Value
and Investment

Disinvestment,
Distress, and
Vacancy

Neighborhood
and Housing
Characteristics

Indicators

Notes

Housing Tenure,
2015-19

Share of owner-occupied households (ACS, 2015-19, Five-year estimates)

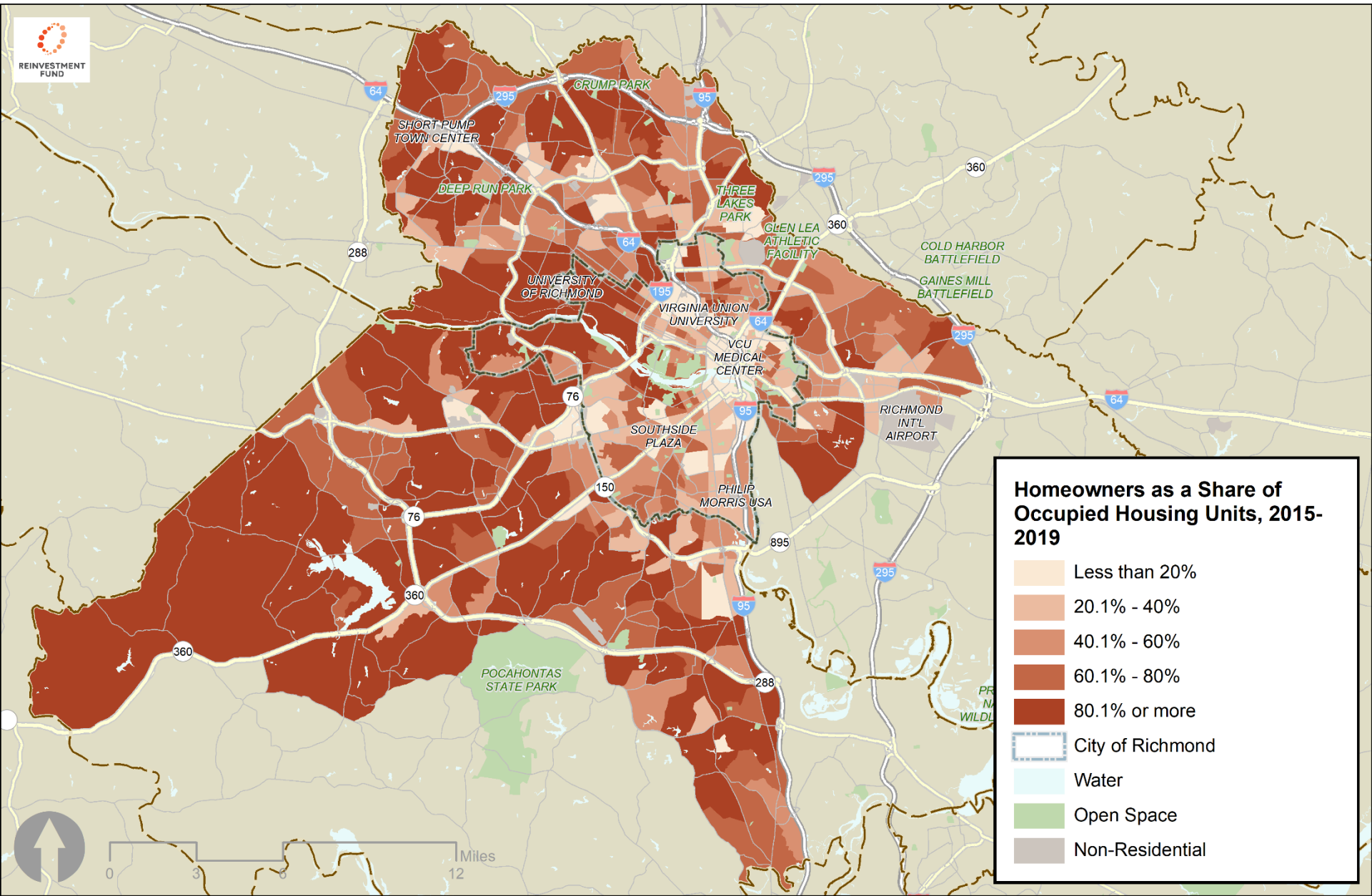
Cost Assisted Renters:
Vouchers and Public
Housing Units, 2021

Count of households using Housing Choice Vouchers and living in public housing developments as a share of all renter occupied households

Density of Housing
Units , 2015-19

Density of Housing Units
(Source: American Community Survey, Parcel Files)

Neighborhood Characteristics: Homeownership



Homeowners as a Share of Occupied Housing Units, 2015-2019

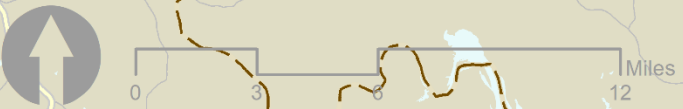
- Less than 20%
- 20.1% - 40%
- 40.1% - 60%
- 60.1% - 80%
- 80.1% or more

City of Richmond (dashed blue line)

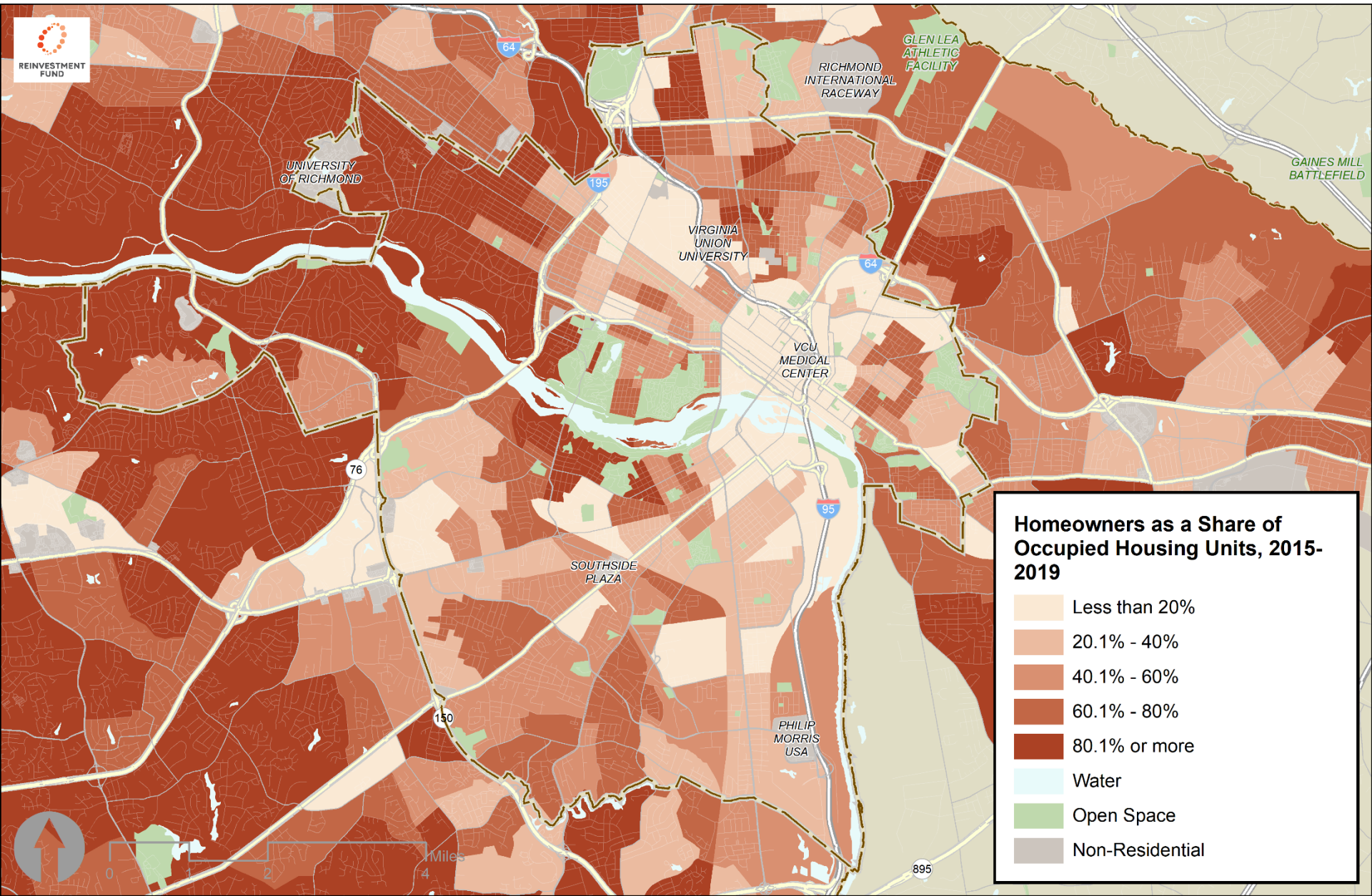
Water (light blue)

Open Space (green)

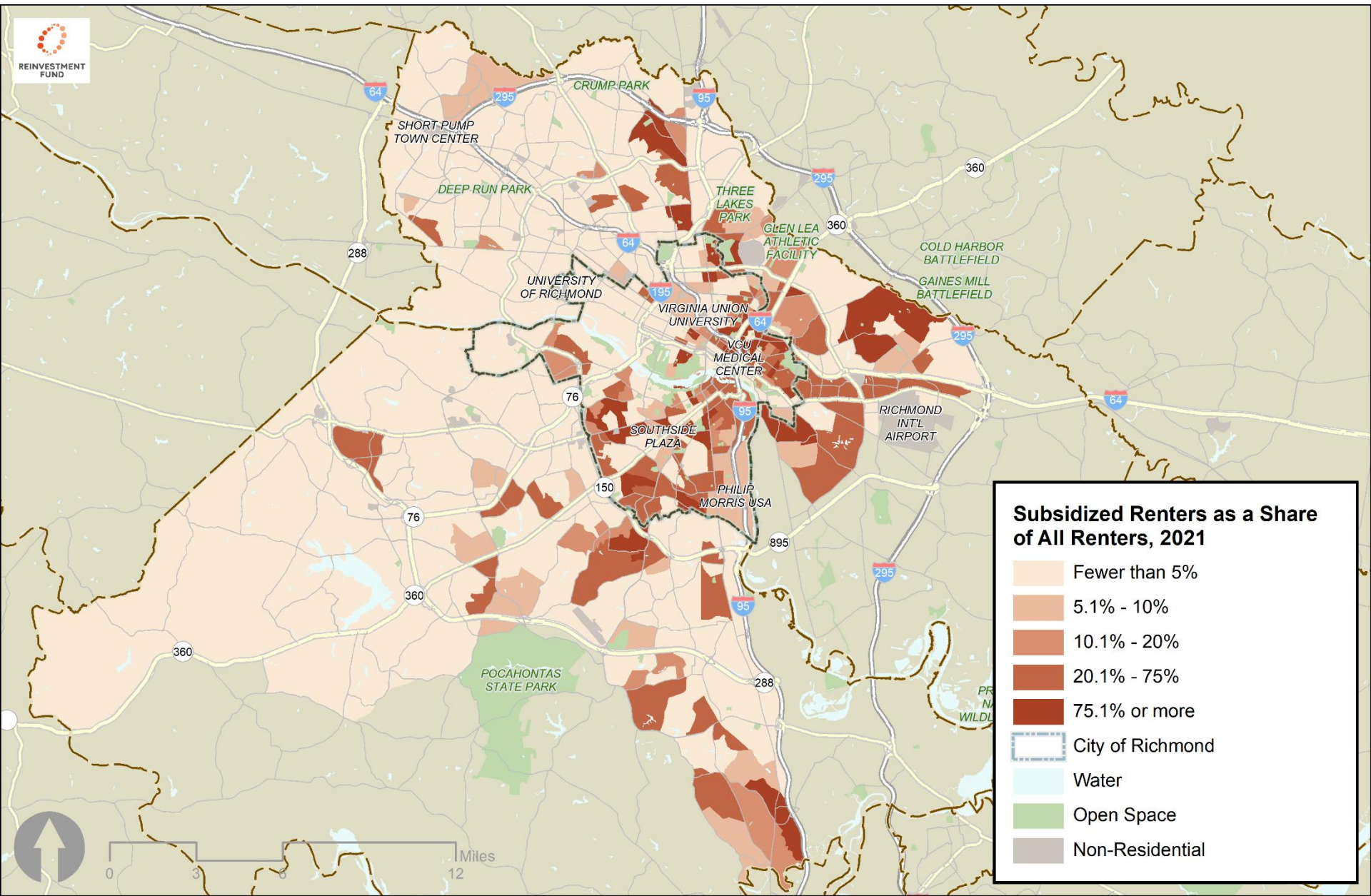
Non-Residential (grey)



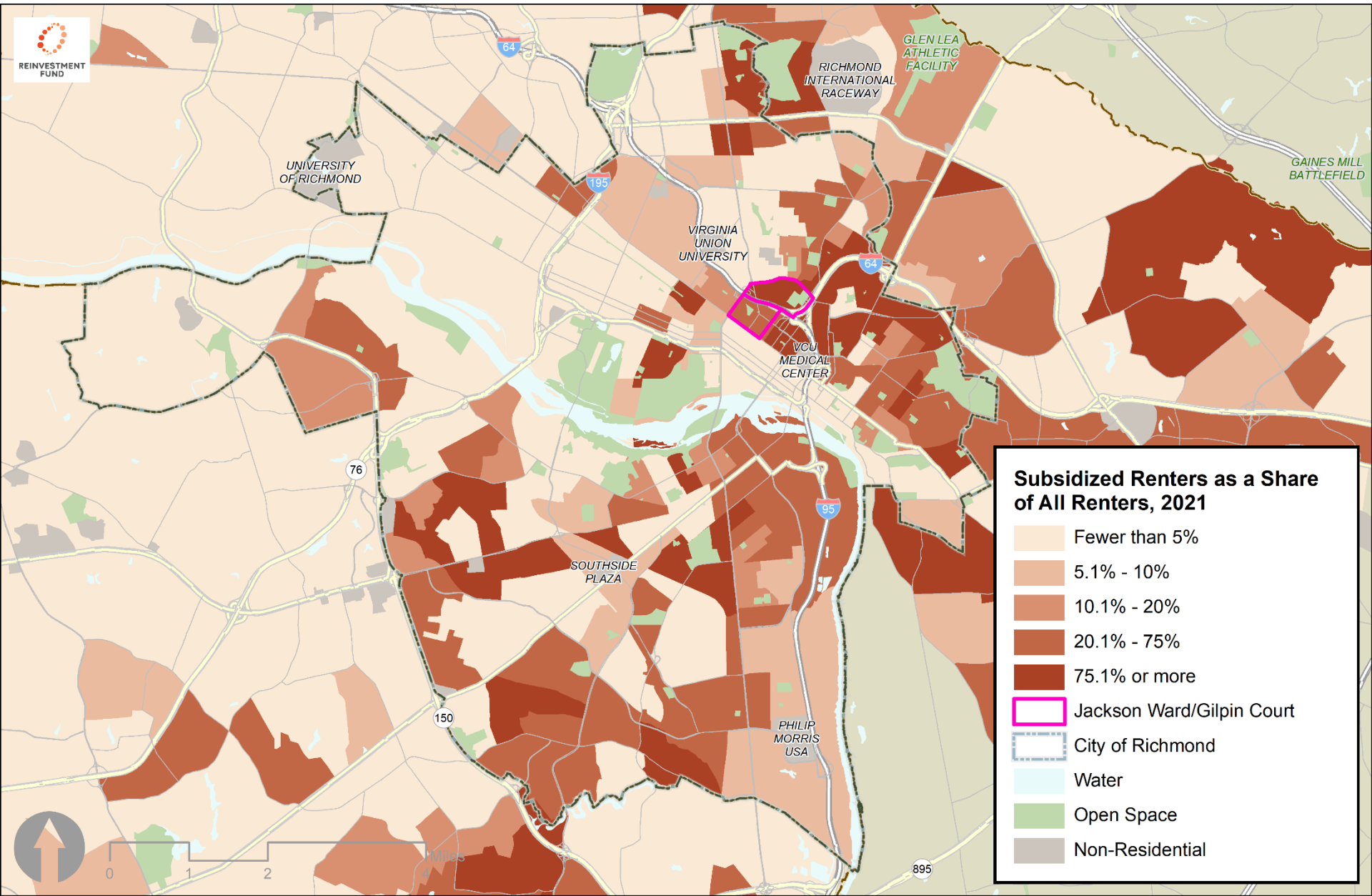
Neighborhood Characteristics: Homeownership



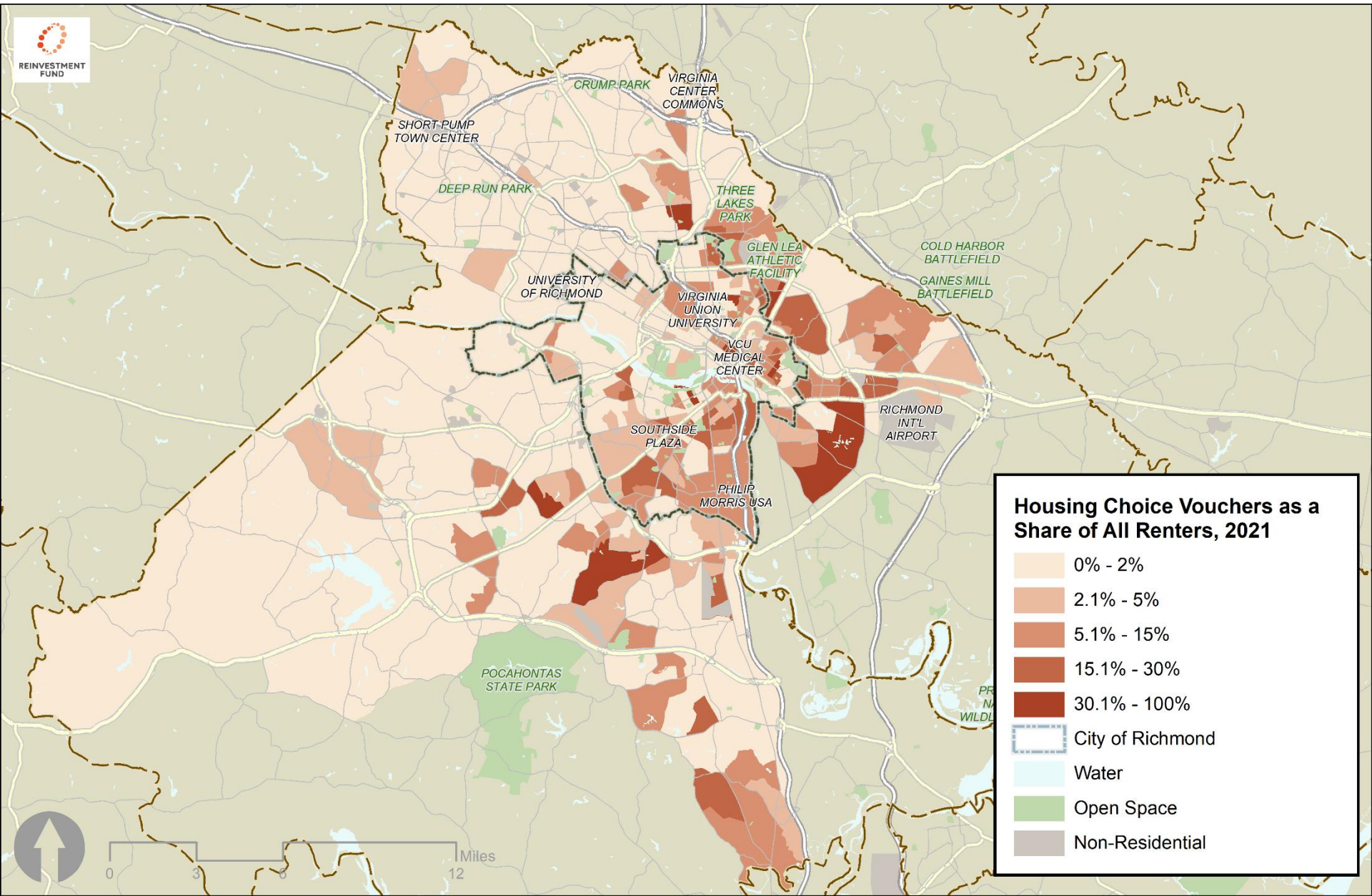
Neighborhood Characteristics: Subsidized Renters Includes Residents of Public/Assisted Housing and Residents Using Housing Choice Vouchers



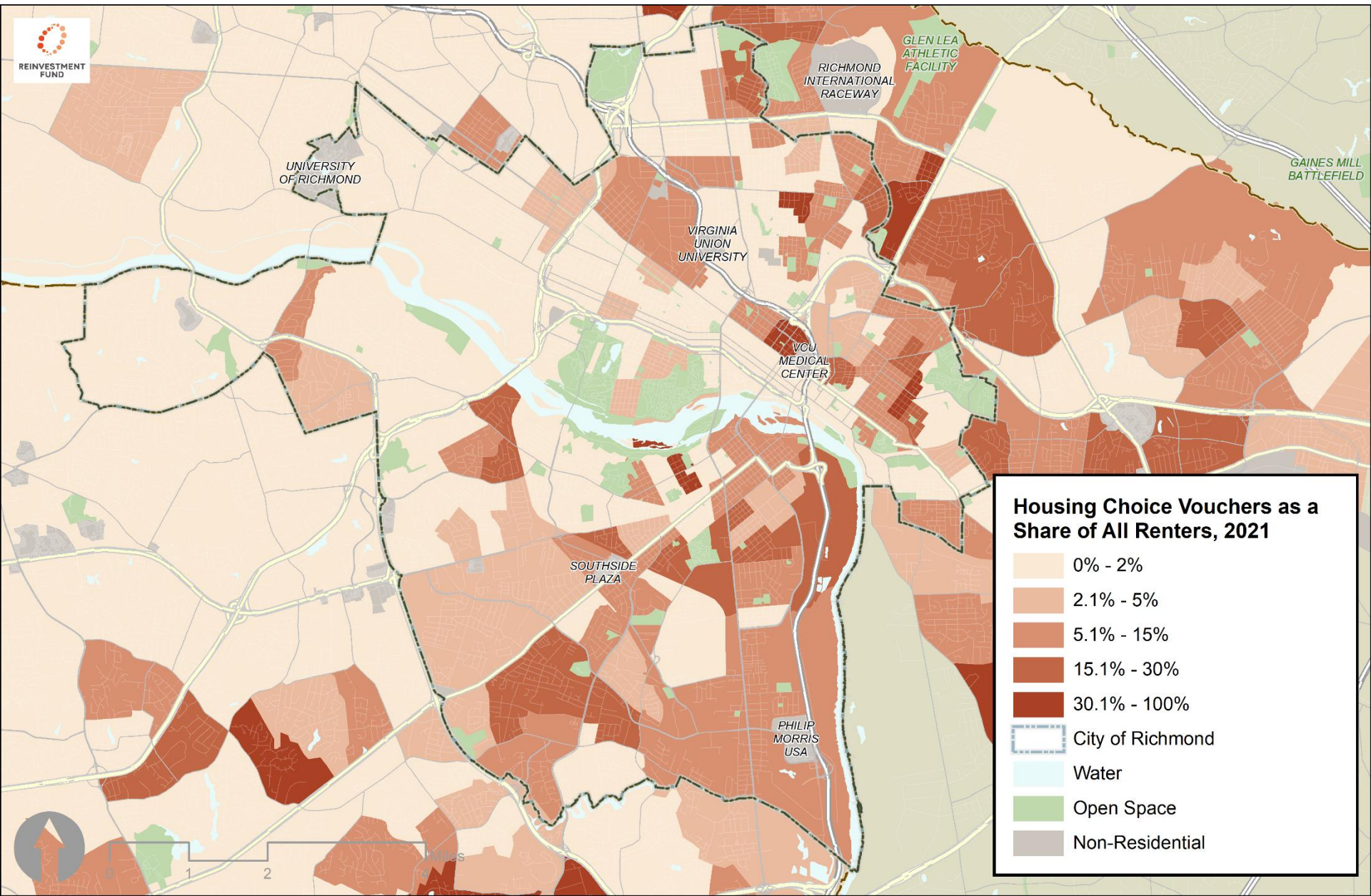
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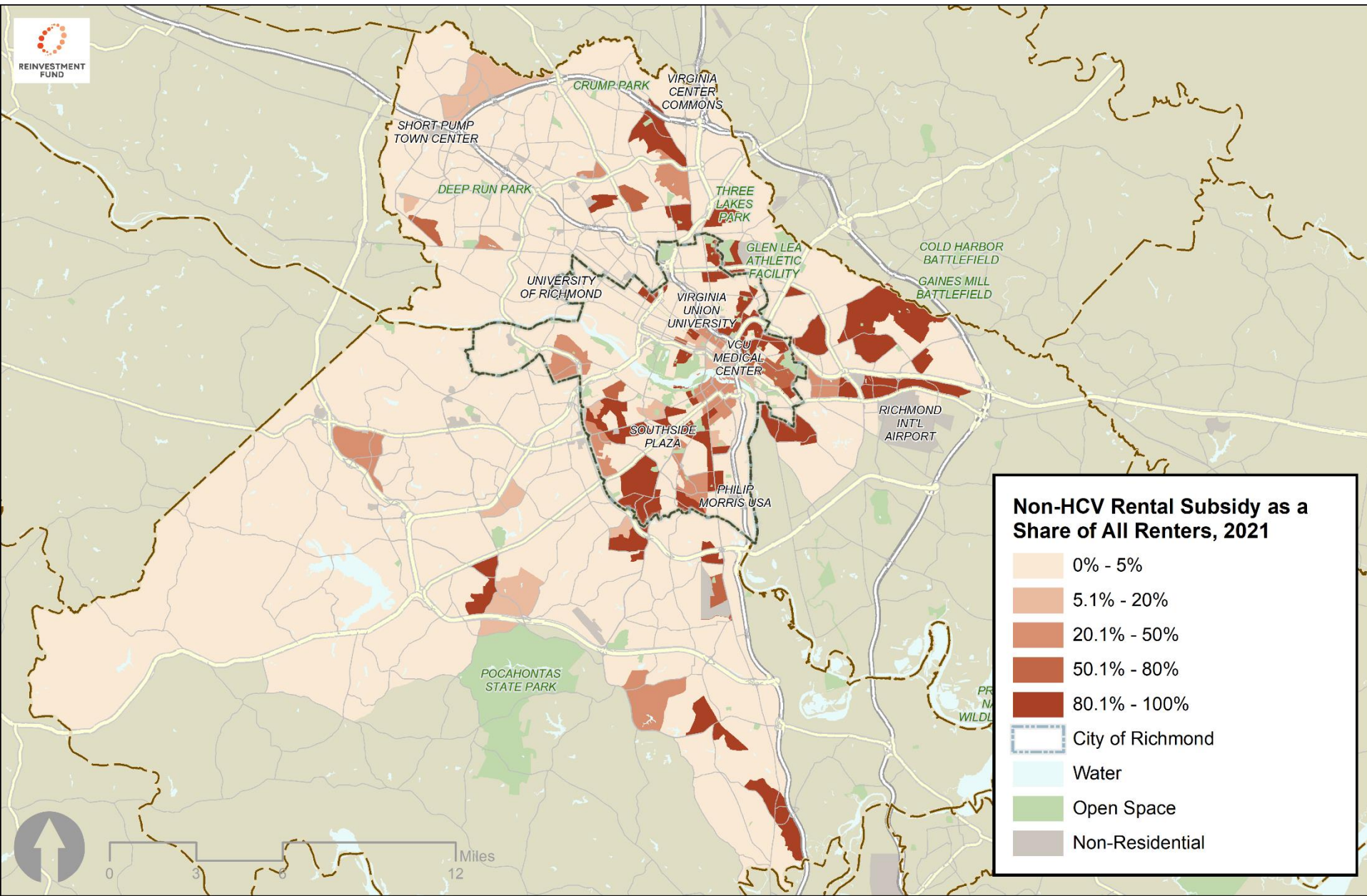
Neighborhood Characteristics: Residents Using Housing Choice Vouchers (Does not Include Residents of Public/Assisted Housing)



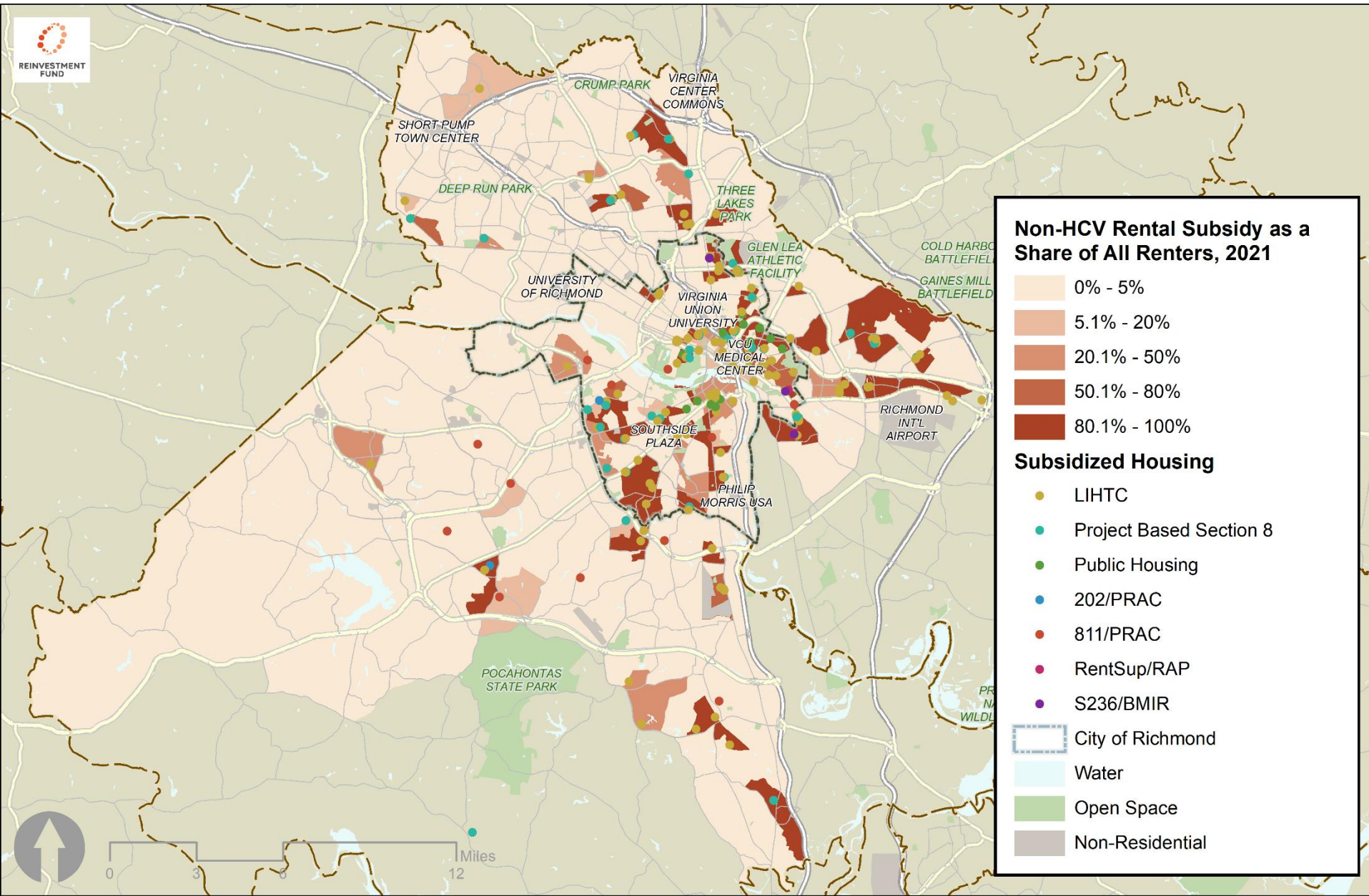
Neighborhood Characteristics: Residents Using Housing Choice Vouchers (Does not Include Residents of Public/Assisted Housing)



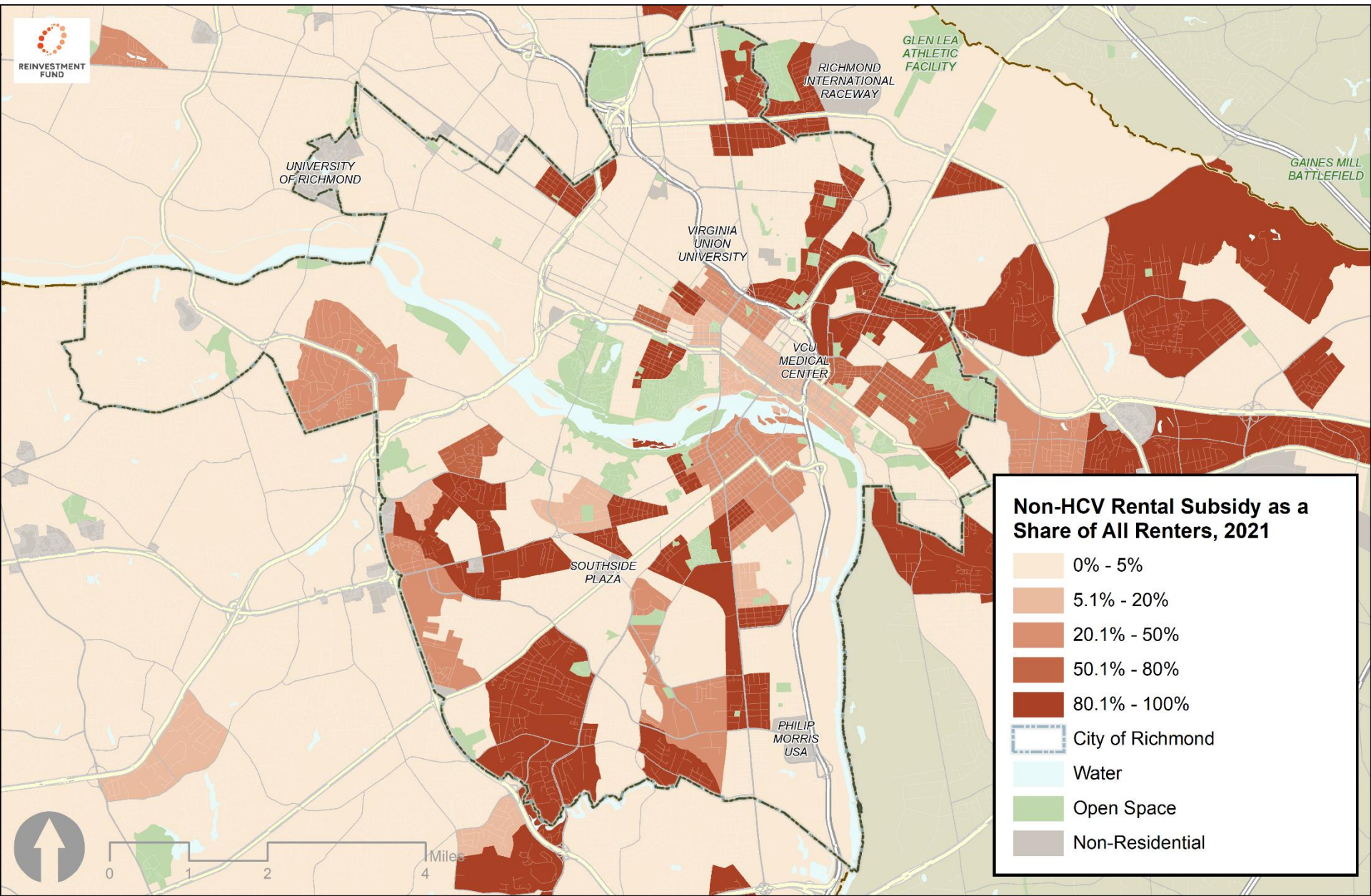
Neighborhood Characteristics: Residents of Public/Assisted Housing (Does Not Include Residents Using Housing Choice Vouchers)



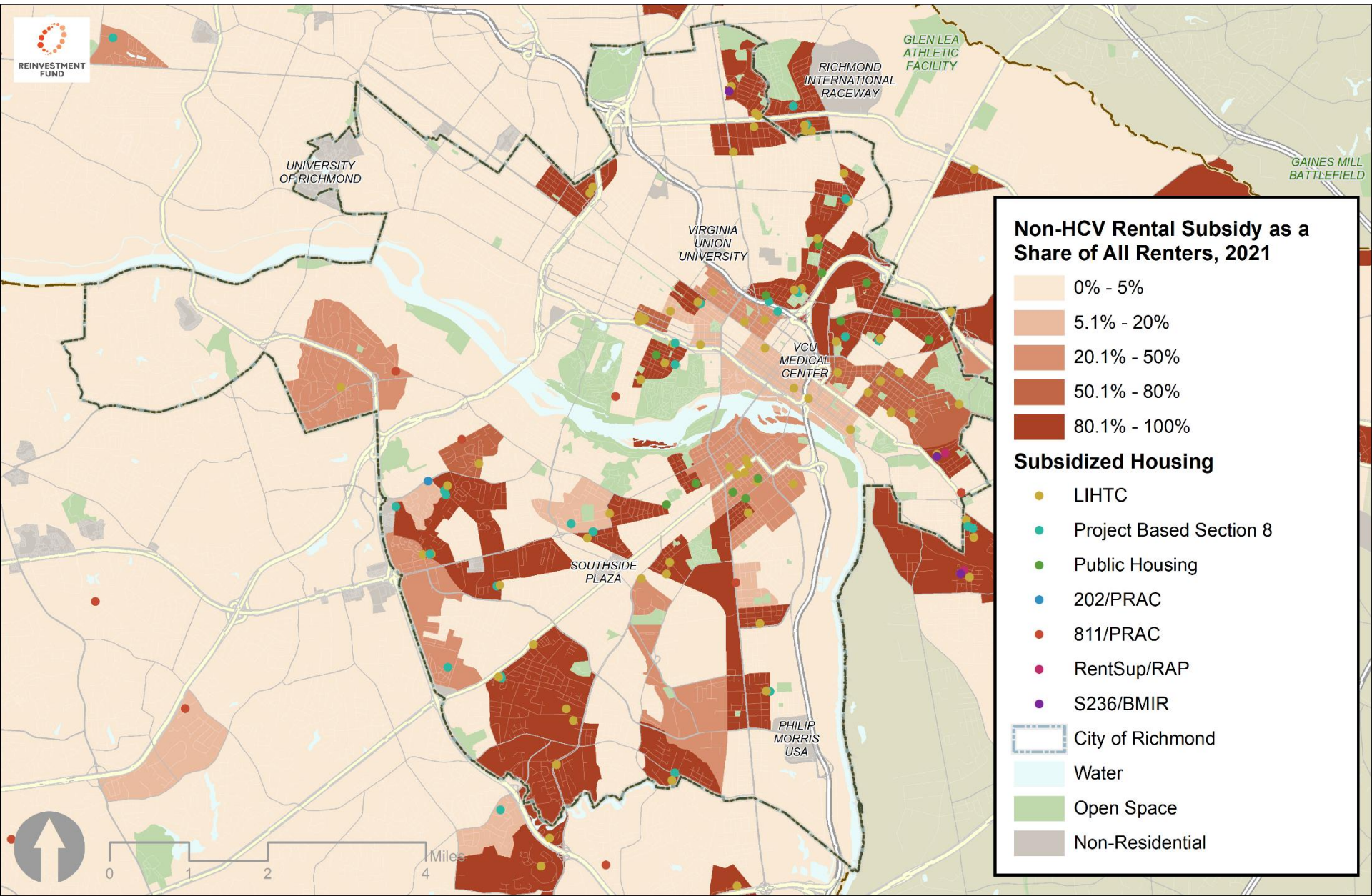
Neighborhood Characteristics: Residents of Public/Assisted Housing (Does Not Include Residents Using Housing Choice Vouchers)



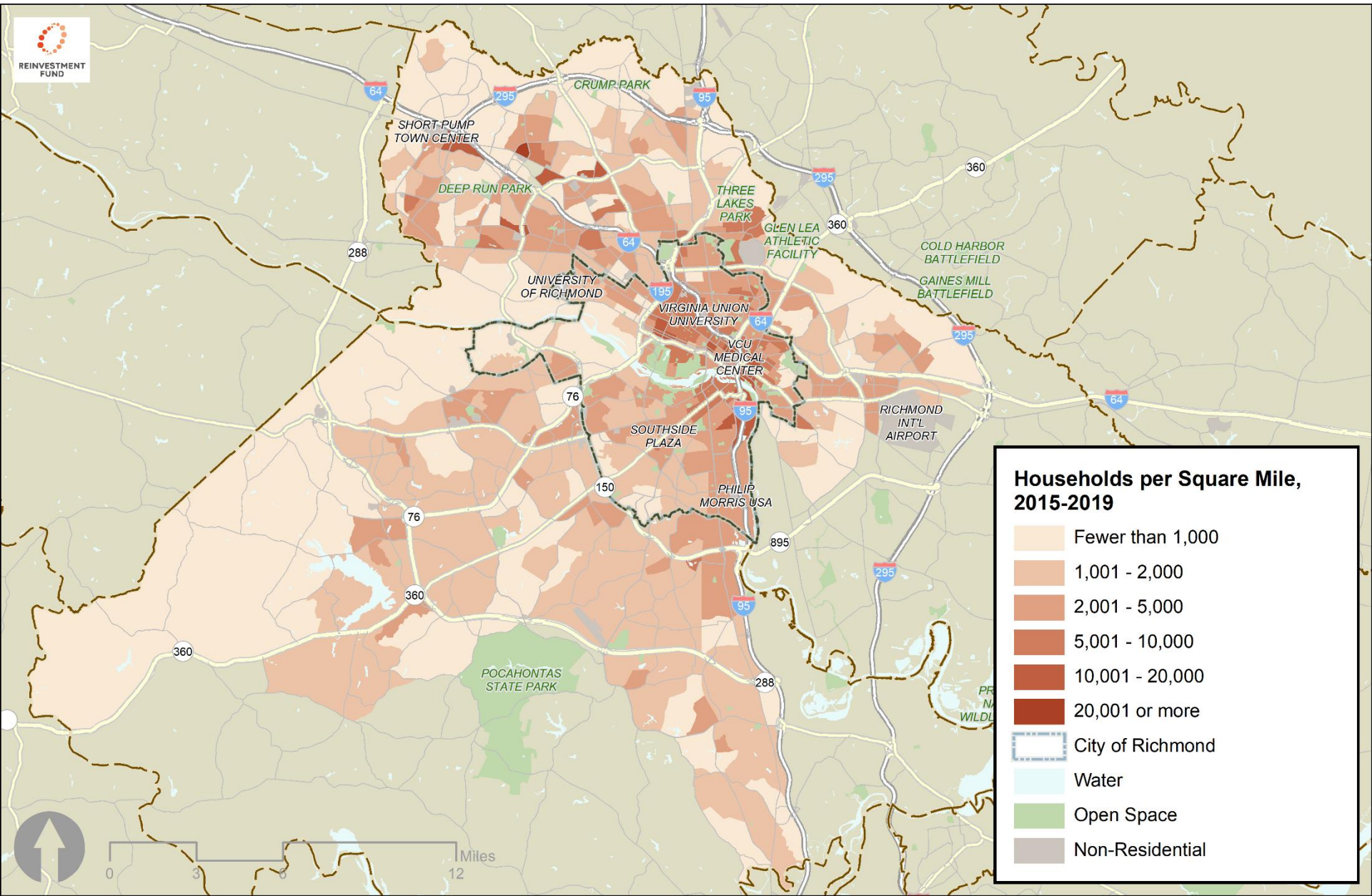
Neighborhood Characteristics: Residents of Public/Assisted Housing (Does Not Include Residents Using Housing Choice Vouchers)



Neighborhood Characteristics: Residents of Public/Assisted Housing (Does Not Include Residents Using Housing Choice Vouchers)



Neighborhood Characteristics: Residential Density

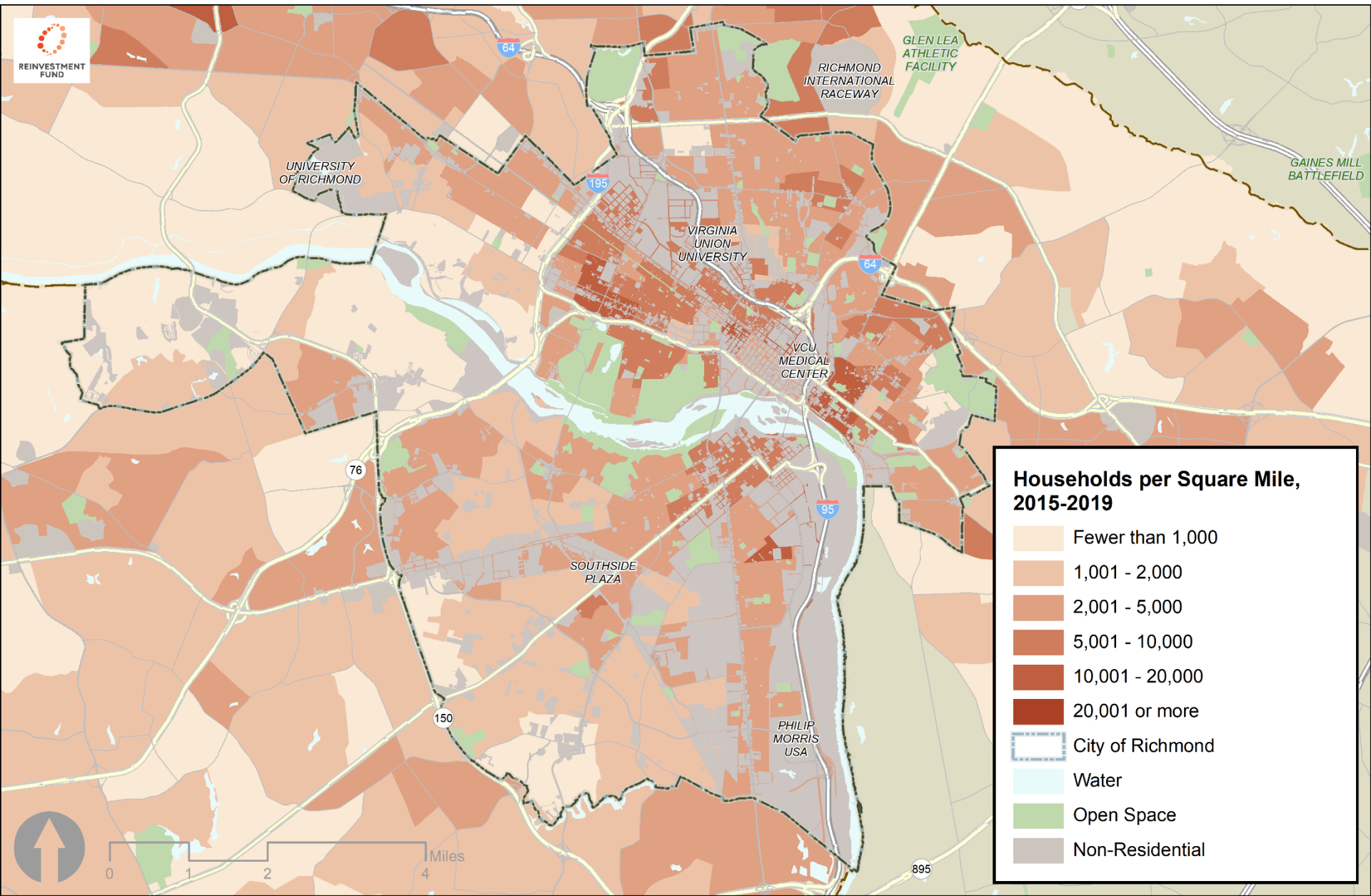


Households per Square Mile, 2015-2019

- Fewer than 1,000
- 1,001 - 2,000
- 2,001 - 5,000
- 5,001 - 10,000
- 10,001 - 20,000
- 20,001 or more
- City of Richmond
- Water
- Open Space
- Non-Residential



Neighborhood Characteristics: Residential Density





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Review 2017 MVA Model

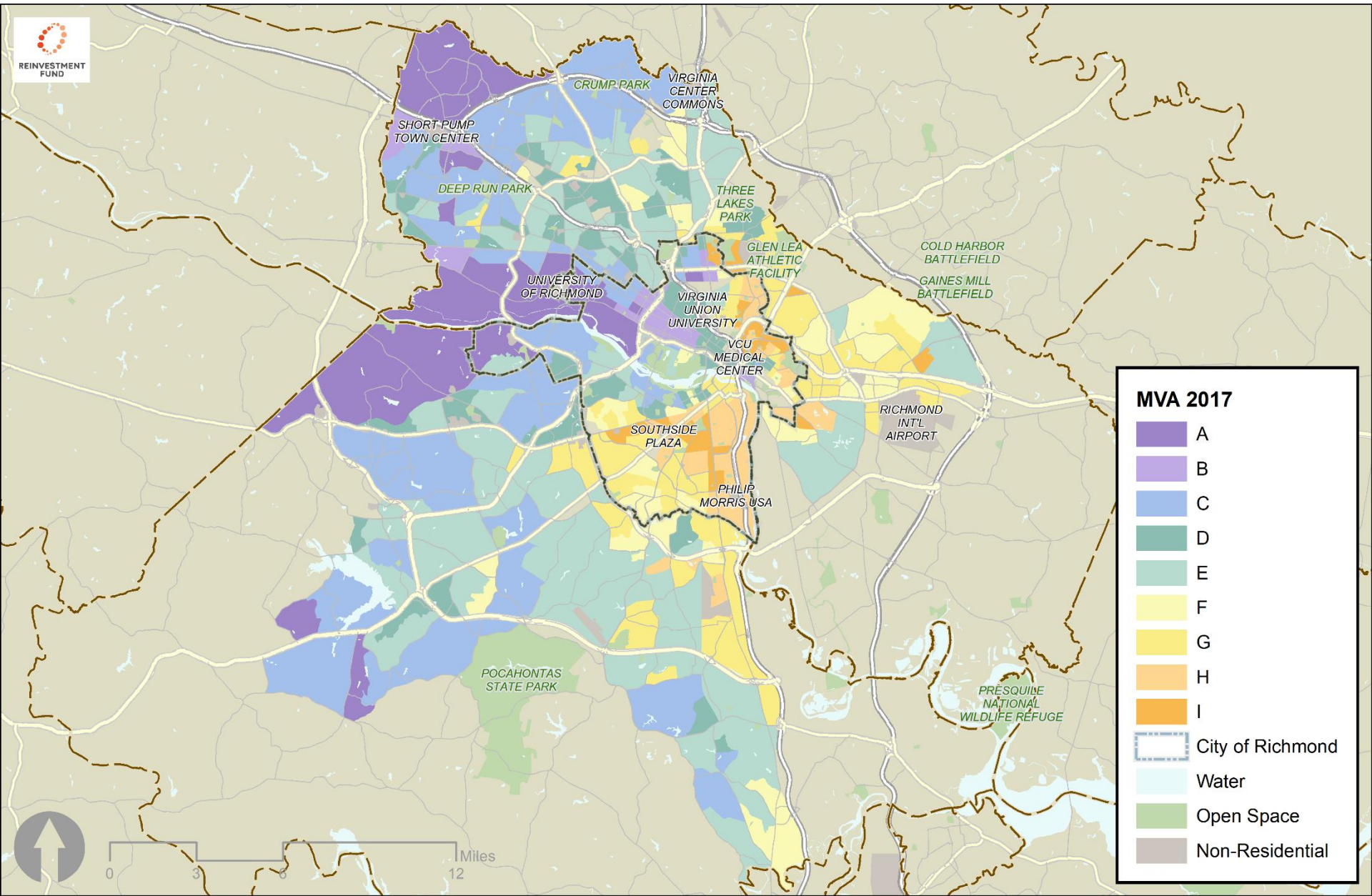
Market Characteristics

Average Characteristics for Richmond Area Market Types

	Number of Block Groups*	Median Sales Price 2015-2016	Sales Price Variance	Percent Bank Sales	Owner Occupancy	Percent Subsidized Rental	Percent Vacant Residential	Housing Units per Acre	Percent Residential Parcels Built 2008-up	Percent Residential Parcels with Permits 2015-2016
A	32	\$501,292	0.39	3%	90%	0%	0.4%	1.9	5.9%	11.6%
B	23	\$425,851	0.47	3%	33%	10%	1.5%	17.2	4.7%	5.0%
C	82	\$274,479	0.34	6%	83%	3%	0.6%	3.2	2.7%	7.2%
D	53	\$195,175	0.35	9%	29%	7%	1.2%	9.8	3.4%	5.7%
E	103	\$182,686	0.32	13%	80%	3%	0.9%	2.8	2.6%	5.5%
F	30	\$140,358	0.38	21%	48%	77%	1.8%	4.0	2.5%	4.0%
G	62	\$117,611	0.39	29%	59%	7%	3.0%	4.2	2.7%	4.9%
H	31	\$ 63,465	0.61	33%	41%	12%	8.5%	5.6	1.9%	3.7%
I	18	\$ 53,597	0.60	37%	30%	89%	3.2%	7.2	2.0%	2.0%

*Totals do not include block groups that were split to better categorize the market

Richmond Area 2017 MVA

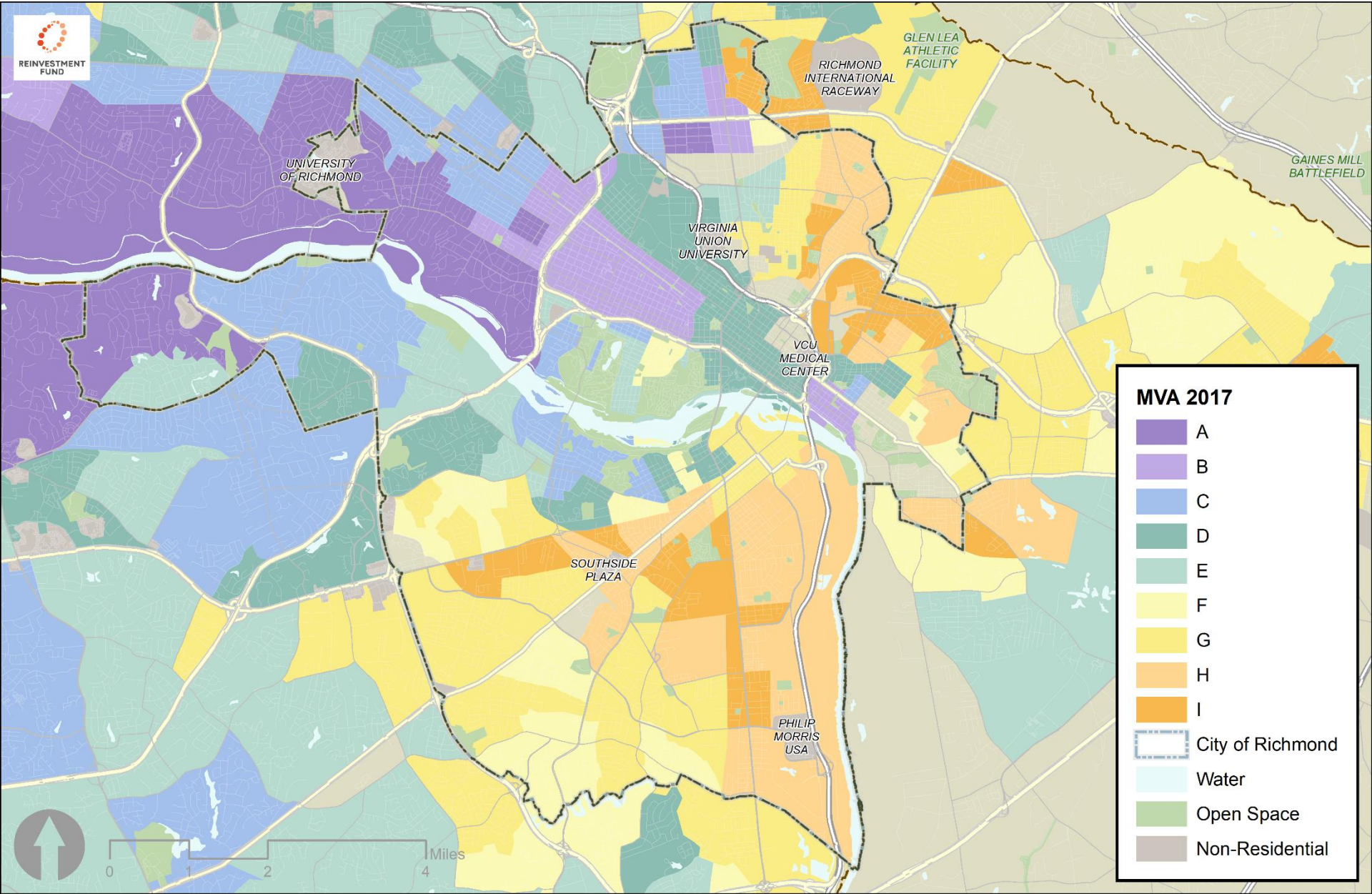


MVA 2017

- A
- B
- C
- D
- E
- F
- G
- H
- I
- City of Richmond
- Water
- Open Space
- Non-Residential



Richmond Area 2017 MVA





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2022 Market Value Analysis

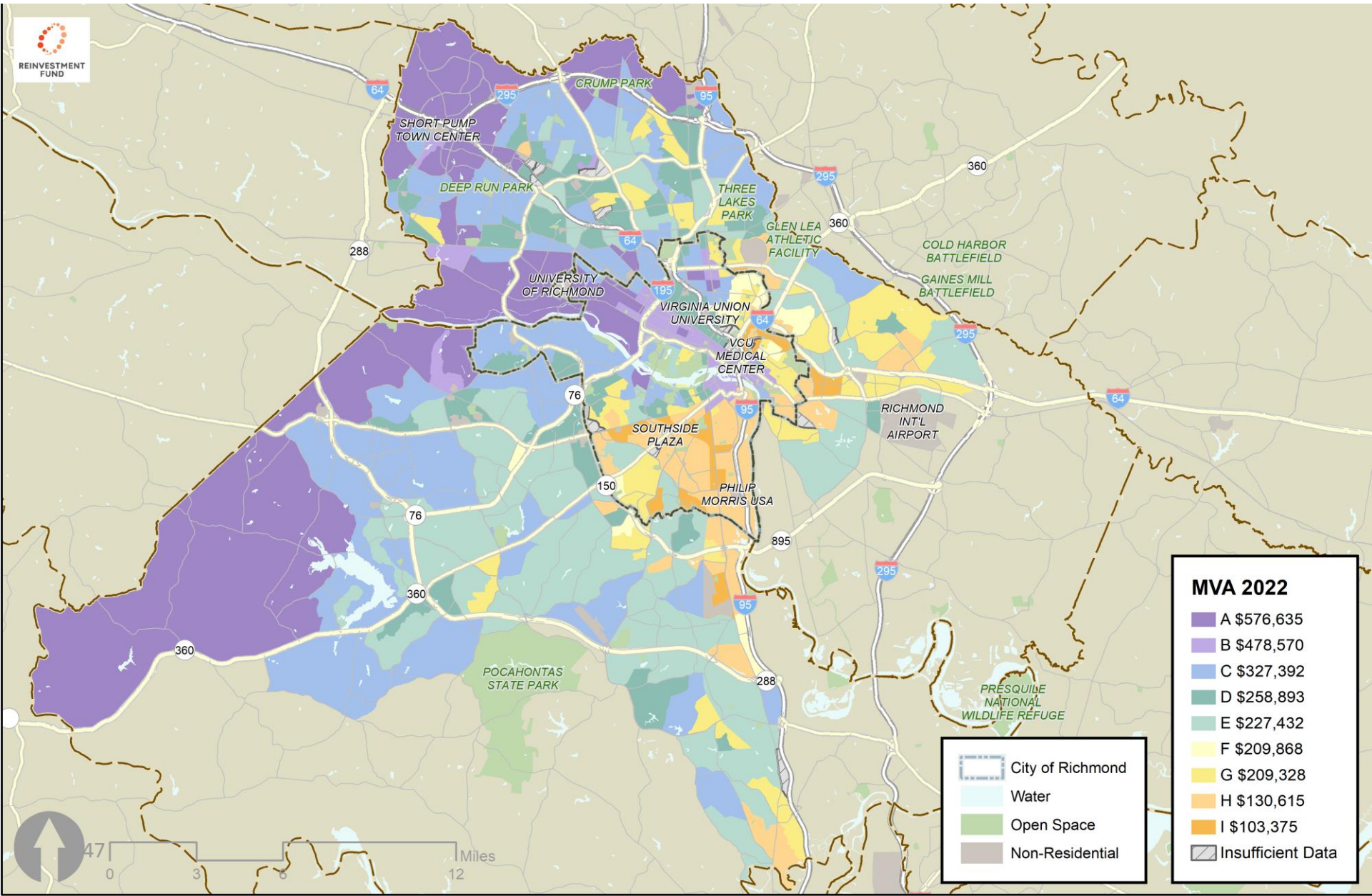
2022 MVA

Average Characteristics for Richmond Area Market Types

	Number of Block Groups*	Median Sales Price 2019-2021	Sales Price Variance, 2019-2021	Percent Bank Sales, 2019-2021	Owner Occupancy, 2015-19	Percent Subsidized Rental, 2021	Percent Vacant Residential, 2021	Housing Units per Acre, 2015-19	Percent Residential Parcels Built 2008-up	Percent Residential Parcels with Permits 2019-21
A	49	\$576,635	0.63	2%	86%	1%	0%	2.8	12%	17%
B	32	\$478,570	0.94	4%	29%	22%	2%	21.9	2%	10%
C	97	\$327,392	0.37	4%	84%	3%	1%	3.1	4%	9%
D	60	\$258,893	0.80	6%	34%	6%	1%	8.0	5%	8%
E	102	\$ 227,432	0.37	7%	81%	5%	0%	2.5	3%	6%
F	18	\$209,868	0.50	23%	59%	9%	7%	4.9	3%	15%
G	44	\$209,328	0.81	11%	44%	96%	3%	5.0	5%	10%
H	41	\$130,615	0.77	12%	42%	9%	3%	5.3	2%	5%
I	14	\$103,375	1.07	10%	23%	95%	4%	5.7	4%	6%
Block Group Avg.	457	\$292,885	0.60	7%	62%	17%	2%	5.3	4%	9%

*Totals include block groups that were split to better categorize the market

2022 MVA

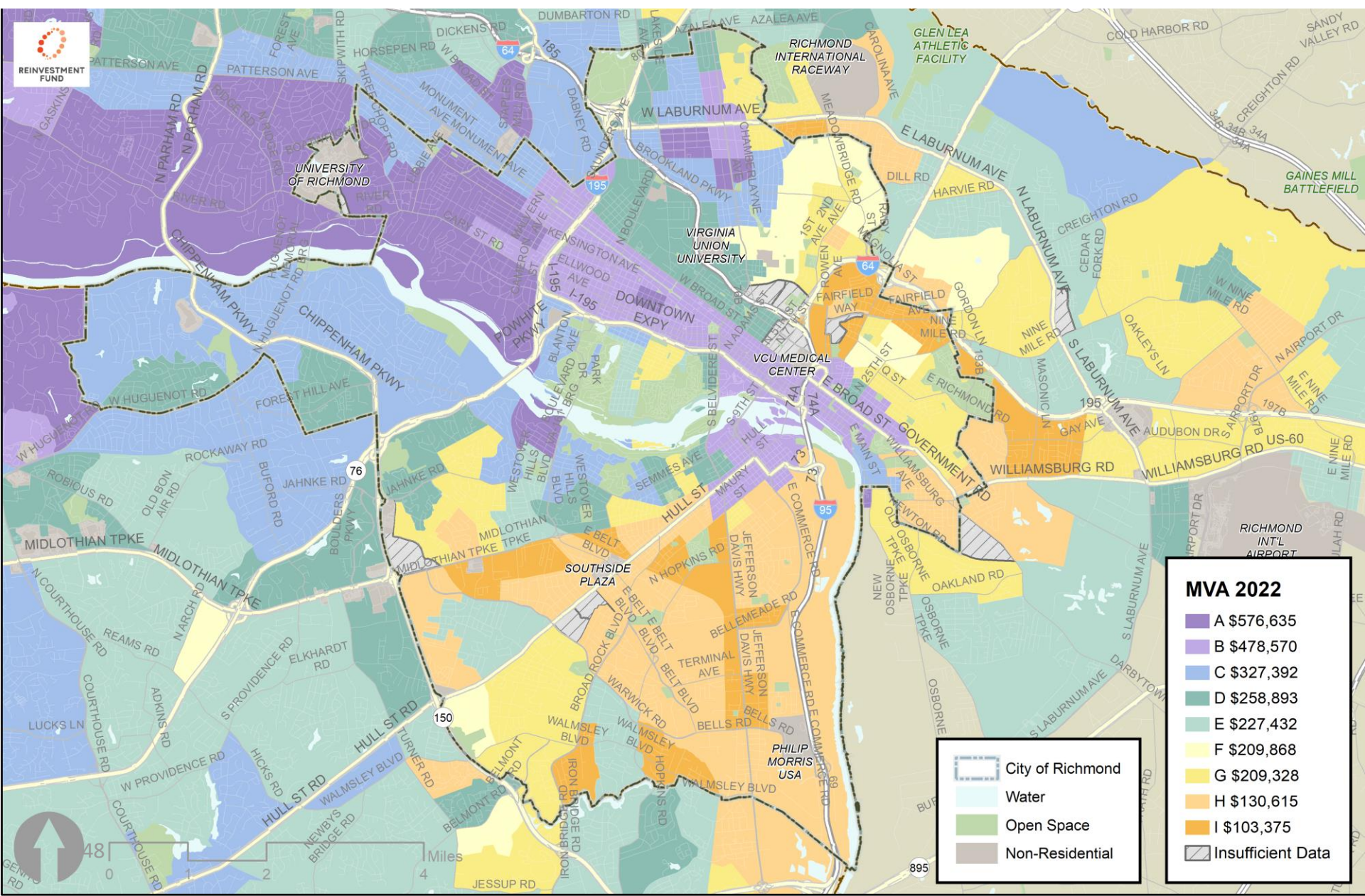


MVA 2022	
	A \$576,635
	B \$478,570
	C \$327,392
	D \$258,893
	E \$227,432
	F \$209,868
	G \$209,328
	H \$130,615
	I \$103,375
	Insufficient Data

	City of Richmond
	Water
	Open Space
	Non-Residential



2022 MVA



MVA 2022	
	A \$576,635
	B \$478,570
	C \$327,392
	D \$258,893
	E \$227,432
	F \$209,868
	G \$209,328
	H \$130,615
	I \$103,375
	City of Richmond
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	Non-Residential
	Insufficient Data

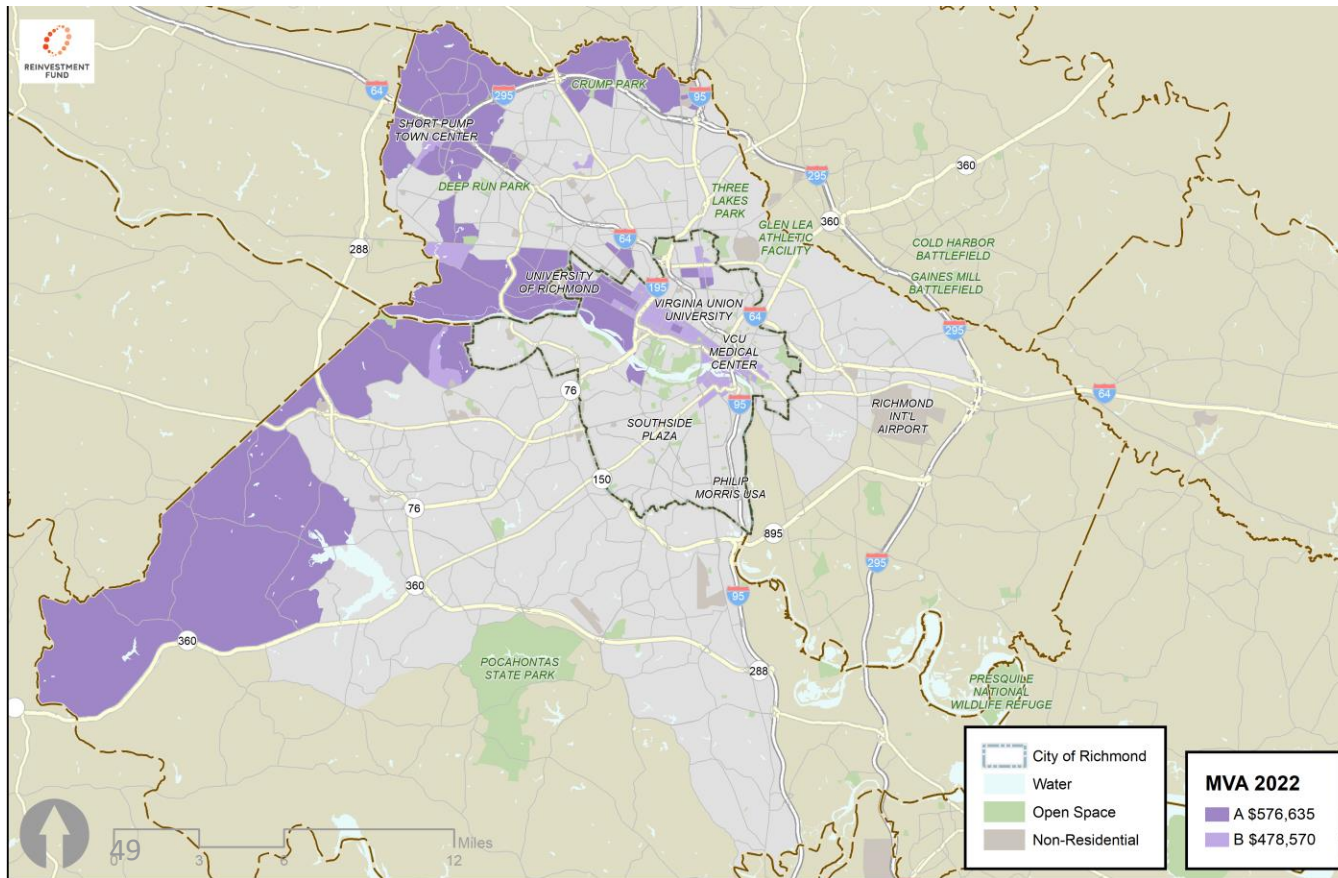


Purple Markets

	# of Block Groups	Median Sales Price 2019-2021	Sales Price Variance, 2019-2021	Percent Bank Sales, 2019-2021	Owner Occupancy, 2015-19	Percent Subsidized Rental, 2021	Percent Vacant Residential, 2021	Housing Units per Acre, 2015-19	Percent Residential Parcels Built 2008-up	Percent Residential Parcels with Permits 2019-21
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B	32	\$478,570	0.94	4%	29%	22%	2%	21.9	2%	10%
Regional Block Group Average		\$292,885	0.60	7%	62%	17%	2%	5.3	4%	9%

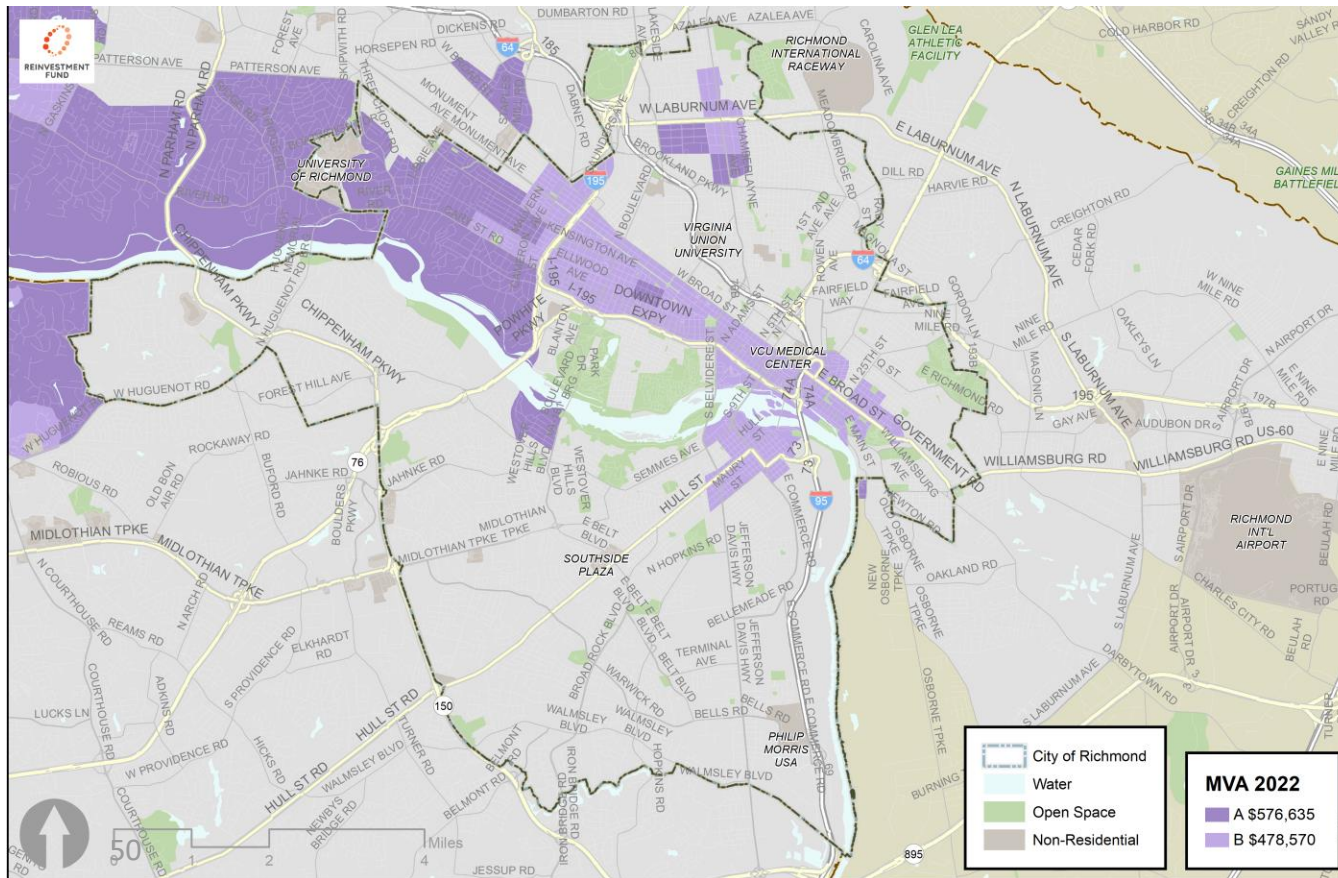
Characteristics of Purple Markets

- Highest priced markets
- A markets mostly owner occupied
- B markets mostly renter occupied
- B markets have the highest density



Purple Markets

	# of Block Groups	Median Sales Price 2019-2021	Sales Price Variance, 2019-2021	Percent Bank Sales, 2019-2021	Owner Occupancy, 2015-19	Percent Subsidized Rental, 2021	Percent Vacant Residential, 2021	Housing Units per Acre, 2015-19	Percent Residential Parcels Built 2008-up	Percent Residential Parcels with Permits 2019-21
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Characteristics of Purple Markets

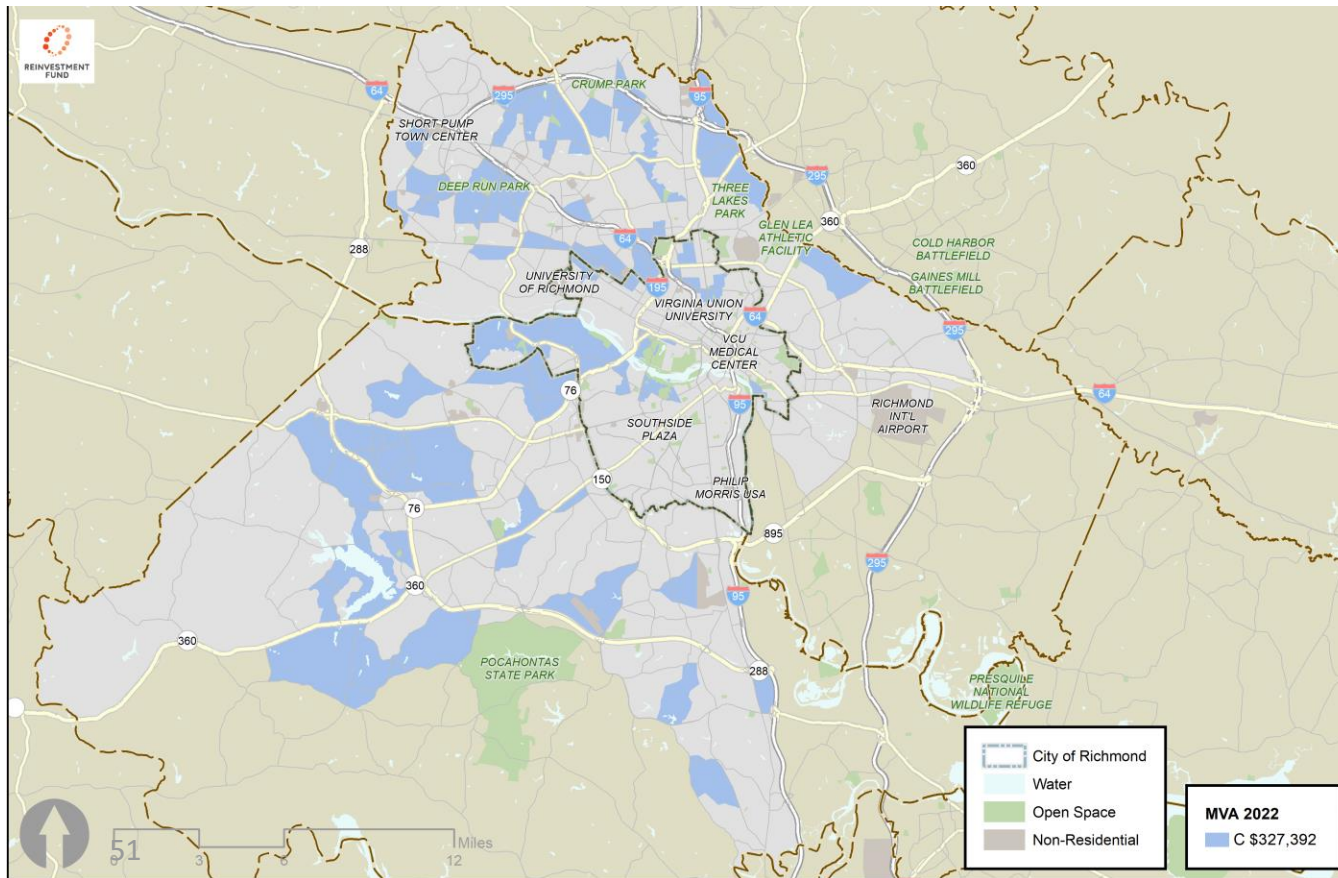
- Highest priced markets
- A markets mostly owner occupied
- B markets mostly renter occupied
- B markets have the highest density

Blue Market

	# of Block Groups	Median Sales Price 2019-2021	Sales Price Variance, 2019-2021	Percent Bank Sales, 2019-2021	Owner Occupancy, 2015-19	Percent Subsidized Rental, 2021	Percent Vacant Residential, 2021	Housing Units per Acre, 2015-19	Percent Residential Parcels Built 2008-up	Percent Residential Parcels with Permits 2019-21
C	97	\$327,392	0.37	4%	84%	3%	1%	3.1	4%	9%
Regional Block Group Average		\$292,885	0.60	7%	62%	17%	2%	5.3	4%	9%

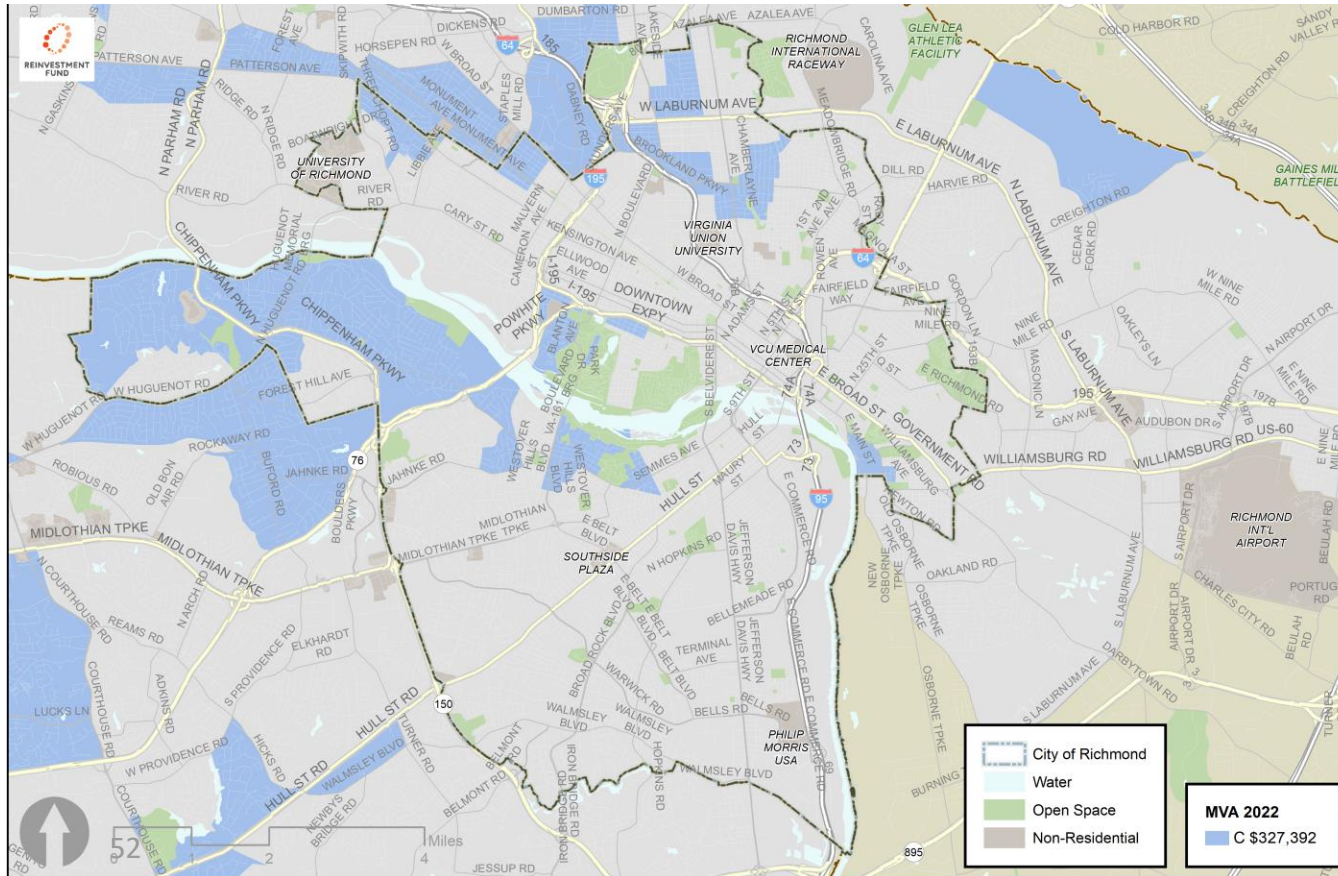
Characteristics of Purple Markets

- Above average sales prices
- Mostly owner occupied



Blue Market

	# of Block Groups	Median Sales Price 2019-2021	Sales Price Variance, 2019-2021	Percent Bank Sales, 2019-2021	Owner Occupancy, 2015-19	Percent Subsidized Rental, 2021	Percent Vacant Residential, 2021	Housing Units per Acre, 2015-19	Percent Residential Parcels Built 2008-up	Percent Residential Parcels with Permits 2019-21
C	97	\$327,392	0.37	4%	84%	3%	1%	3.1	4%	9%
Regional Block Group Average		\$292,885	0.60	7%	62%	17%	2%	5.3	4%	9%



Characteristics of Blue Markets

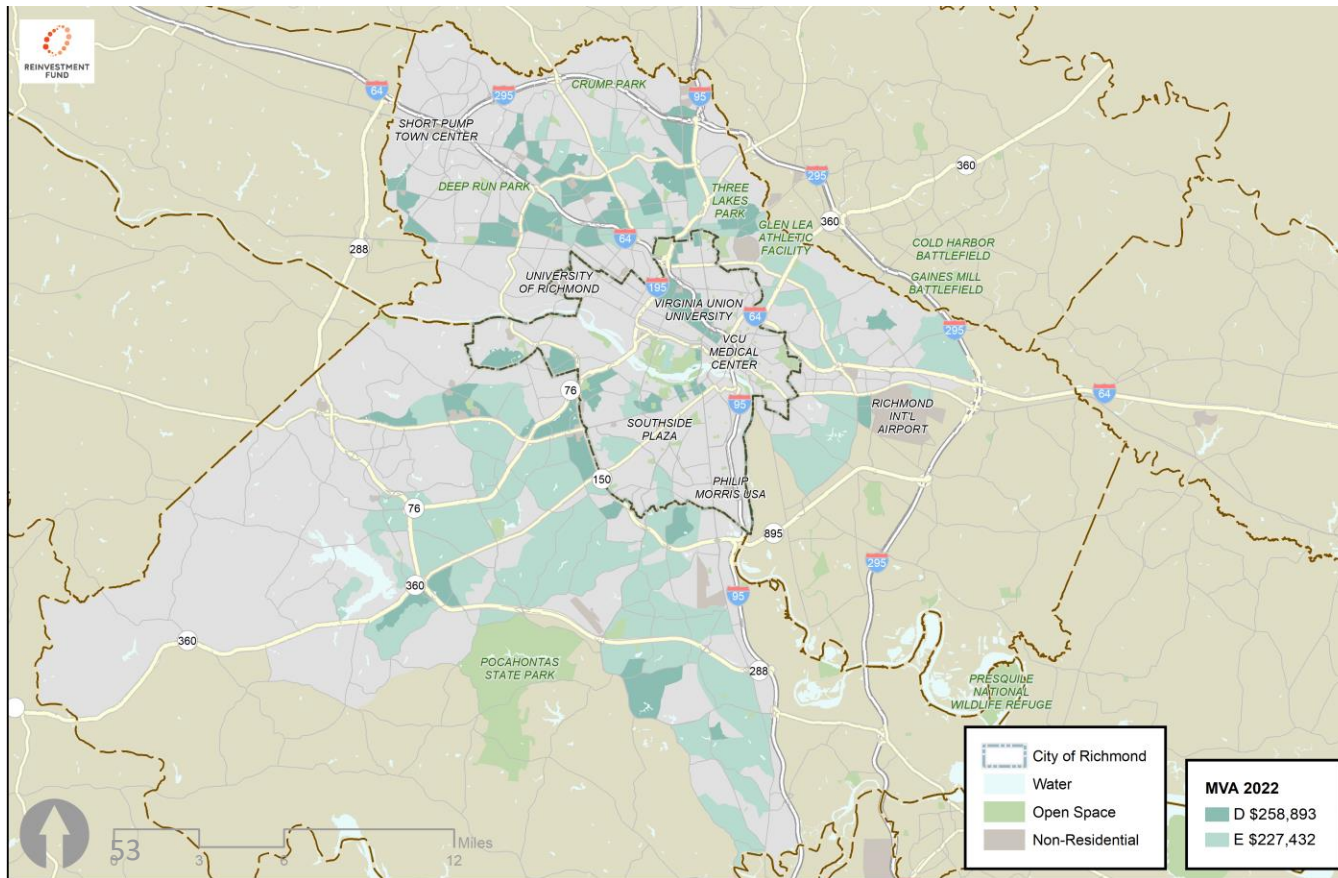
- Above average sales prices
- Mostly owner occupied

Green Markets

	# of Block Groups	Median Sales Price 2019-2021	Sales Price Variance, 2019-2021	Percent Bank Sales, 2019-2021	Owner Occupancy, 2015-19	Percent Subsidized Rental, 2021	Percent Vacant Residential, 2021	Housing Units per Acre, 2015-19	Percent Residential Parcels Built 2008-up	Percent Residential Parcels with Permits 2019-21
D	60	\$258,893	0.80	6%	34%	6%	1%	8.0	5%	8%
E	102	\$ 227,432	0.37	7%	81%	5%	0%	2.5	3%	6%
Regional Block Group Average		\$292,885	0.60	7%	62%	17%	2%	5.3	4%	9%

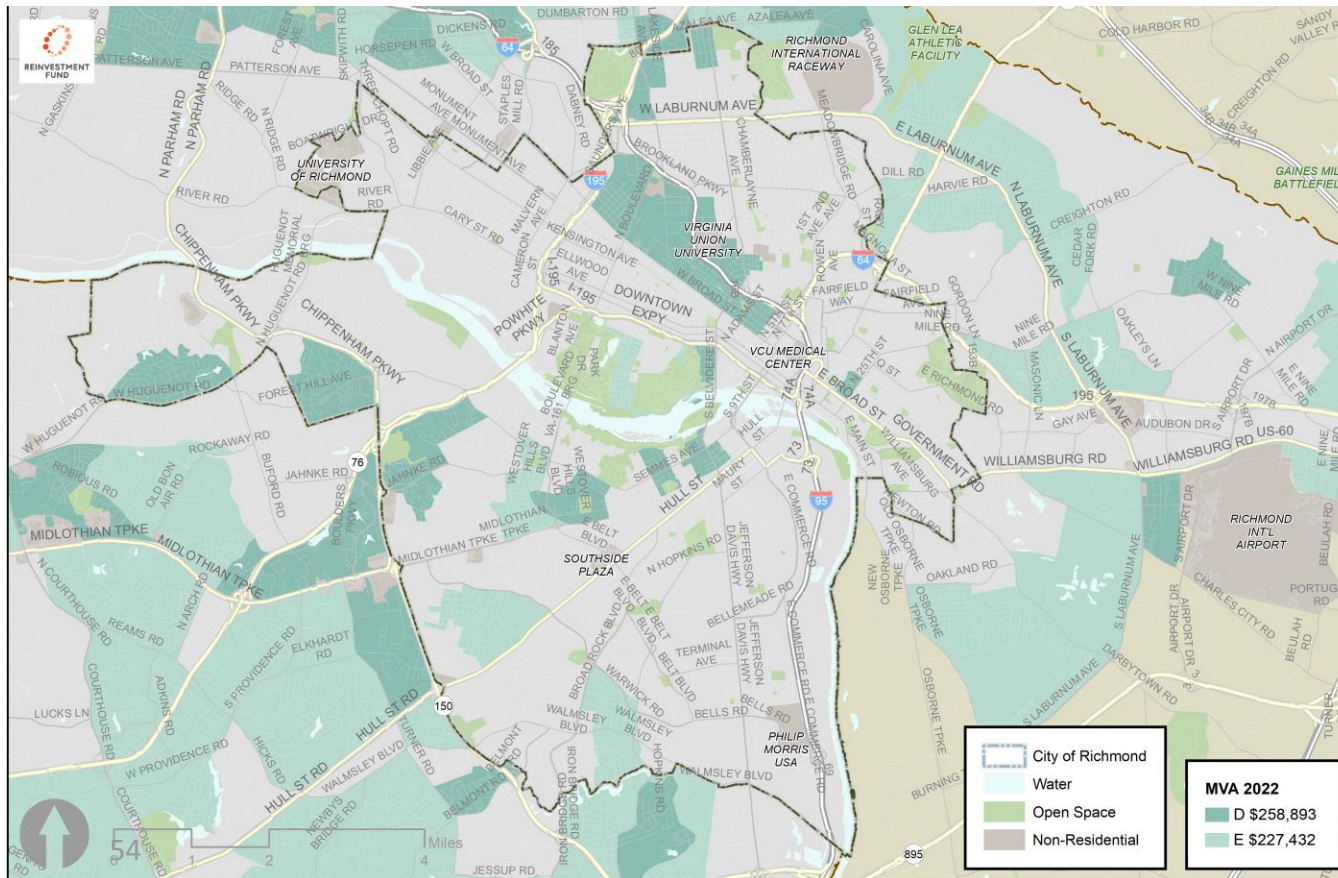
Characteristics of Green Markets

- Sales prices are just below average
- D markets are mostly renter occupied
- E markets are mostly owner occupied
- D markets are denser than E markets



Green Markets

	# of Block Groups	Median Sales Price 2019-2021	Sales Price Variance, 2019-2021	Percent Bank Sales, 2019-2021	Owner Occupancy, 2015-19	Percent Subsidized Rental, 2021	Percent Vacant Residential, 2021	Housing Units per Acre, 2015-19	Percent Residential Parcels Built 2008-up	Percent Residential Parcels with Permits 2019-21
D	60	\$258,893	0.80	6%	34%	6%	1%	8.0	5%	8%
E	102	\$ 227,432	0.37	7%	81%	5%	0%	2.5	3%	6%
Regional Block Group Average		\$292,885	0.60	7%	62%	17%	2%	5.3	4%	9%



Characteristics of Green Markets

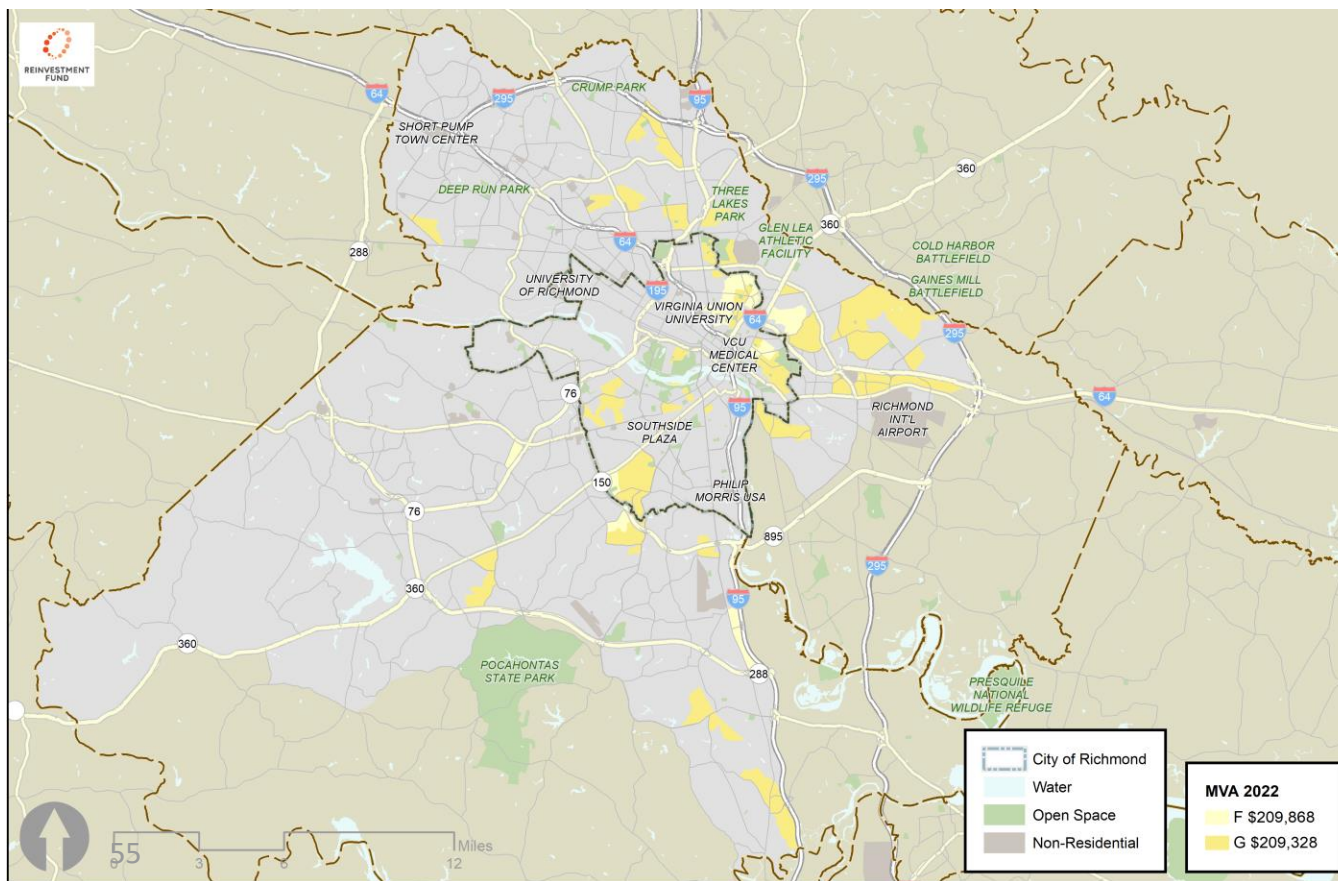
- Sales prices are just below average
- D markets are mostly renter occupied
- E markets are mostly owner occupied
- D markets are denser than E markets

Yellow Markets

	# of Block Groups	Median Sales Price 2019-2021	Sales Price Variance, 2019-2021	Percent Bank Sales, 2019-2021	Owner Occupancy, 2015-19	Percent Subsidized Rental, 2021	Percent Vacant Residential, 2021	Housing Units per Acre, 2015-19	Percent Residential Parcels Built 2008-up	Percent Residential Parcels with Permits 2019-21
F	18	\$209,868	0.50	23%	59%	9%	7%	4.9	3%	15%
G	44	\$209,328	0.81	11%	44%	96%	3%	5.0	5%	10%
Regional Block Group Average		\$292,885	0.60	7%	62%	17%	2%	5.3	4%	9%

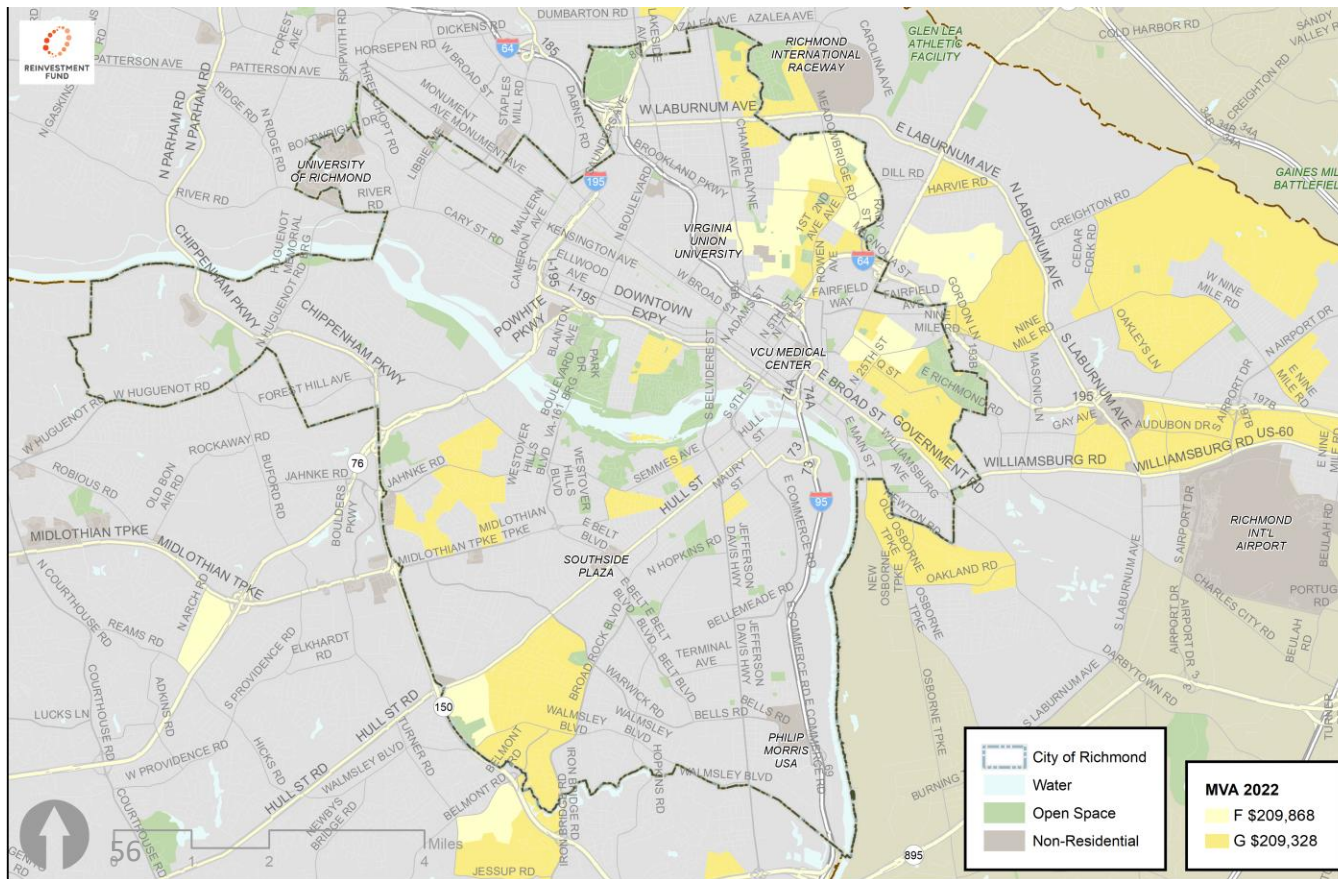
Characteristics of Yellow Markets

- F markets are mostly owner occupied
- F markets have above average Bank Sales and permitting activity
- G markets are mostly rental
- Most renters in G markets are subsidized



Yellow Markets

# of Block Groups	Median Sales Price 2019-2021	Sales Price Variance, 2019-2021	Percent Bank Sales, 2019-2021	Owner Occupancy, 2015-19	Percent Subsidized Rental, 2021	Percent Vacant Residential, 2021	Housing Units per Acre, 2015-19	Percent Residential Parcels Built 2008-up	Percent Residential Parcels with Permits 2019-21	
F	18	\$209,868	0.50	23%	59%	9%	7%	4.9	3%	15%
G	44	\$209,328	0.81	11%	44%	96%	3%	5.0	5%	10%
Regional Block Group Average		\$292,885	0.60	7%	62%	17%	2%	5.3	4%	9%

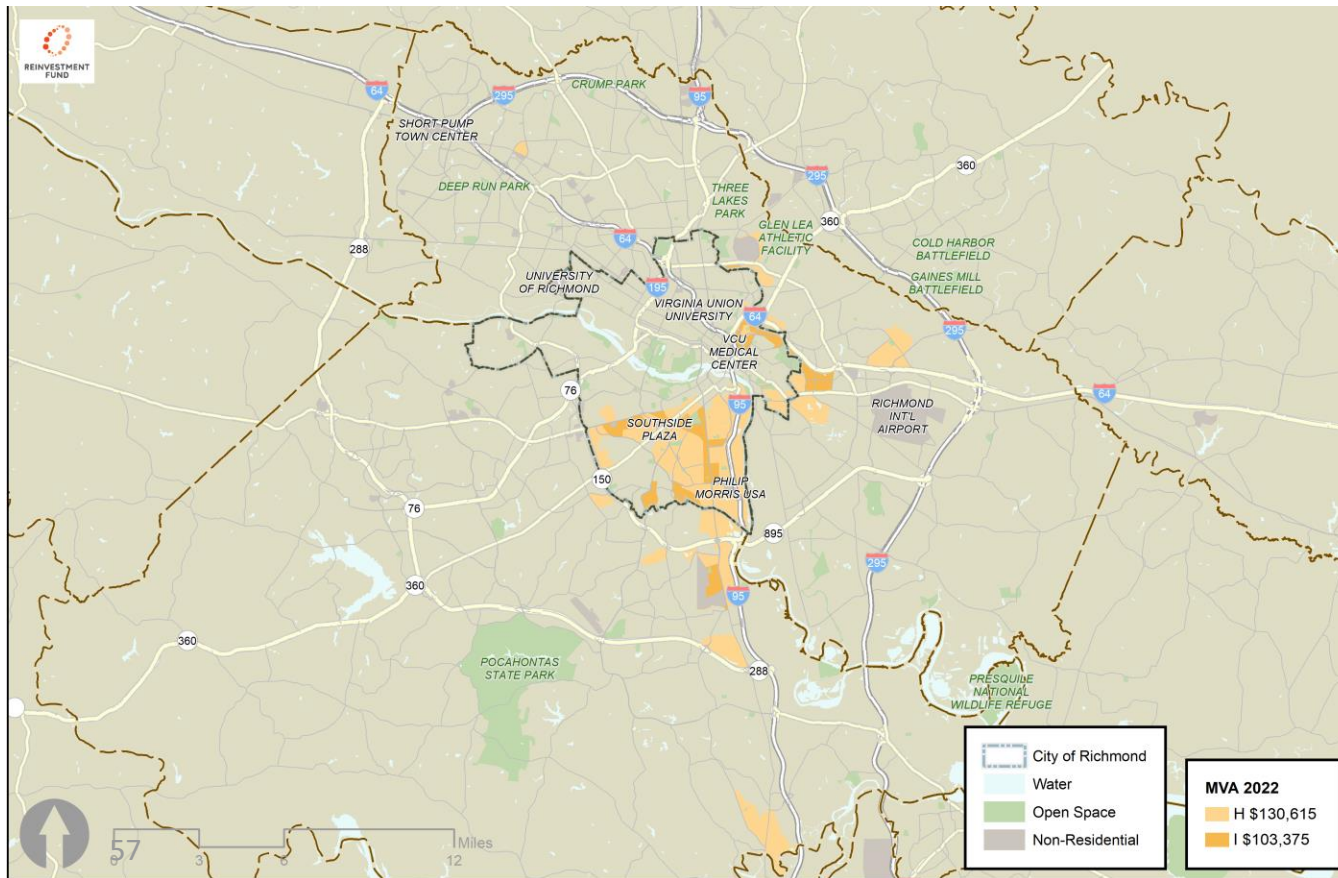


Characteristics of Yellow Markets

- F markets are mostly owner occupied
- F markets have above average Bank Sales and permitting activity
- G markets are mostly rental
- Most renters in G markets are subsidized

Orange Markets

	# of Block Groups	Median Sales Price 2019-2021	Sales Price Variance, 2019-2021	Percent Bank Sales, 2019-2021	Owner Occupancy, 2015-19	Percent Subsidized Rental, 2021	Percent Vacant Residential, 2021	Housing Units per Acre, 2015-19	Percent Residential Parcels Built 2008-up	Percent Residential Parcels with Permits 2019-21
H	41	\$130,615	0.77	12%	42%	9%	3%	5.3	2%	5%
I	14	\$103,375	1.07	10%	23%	95%	4%	5.7	4%	6%
Regional Block Group Average		\$292,885	0.60	7%	62%	17%	2%	5.3	4%	9%



Characteristics of Orange Markets

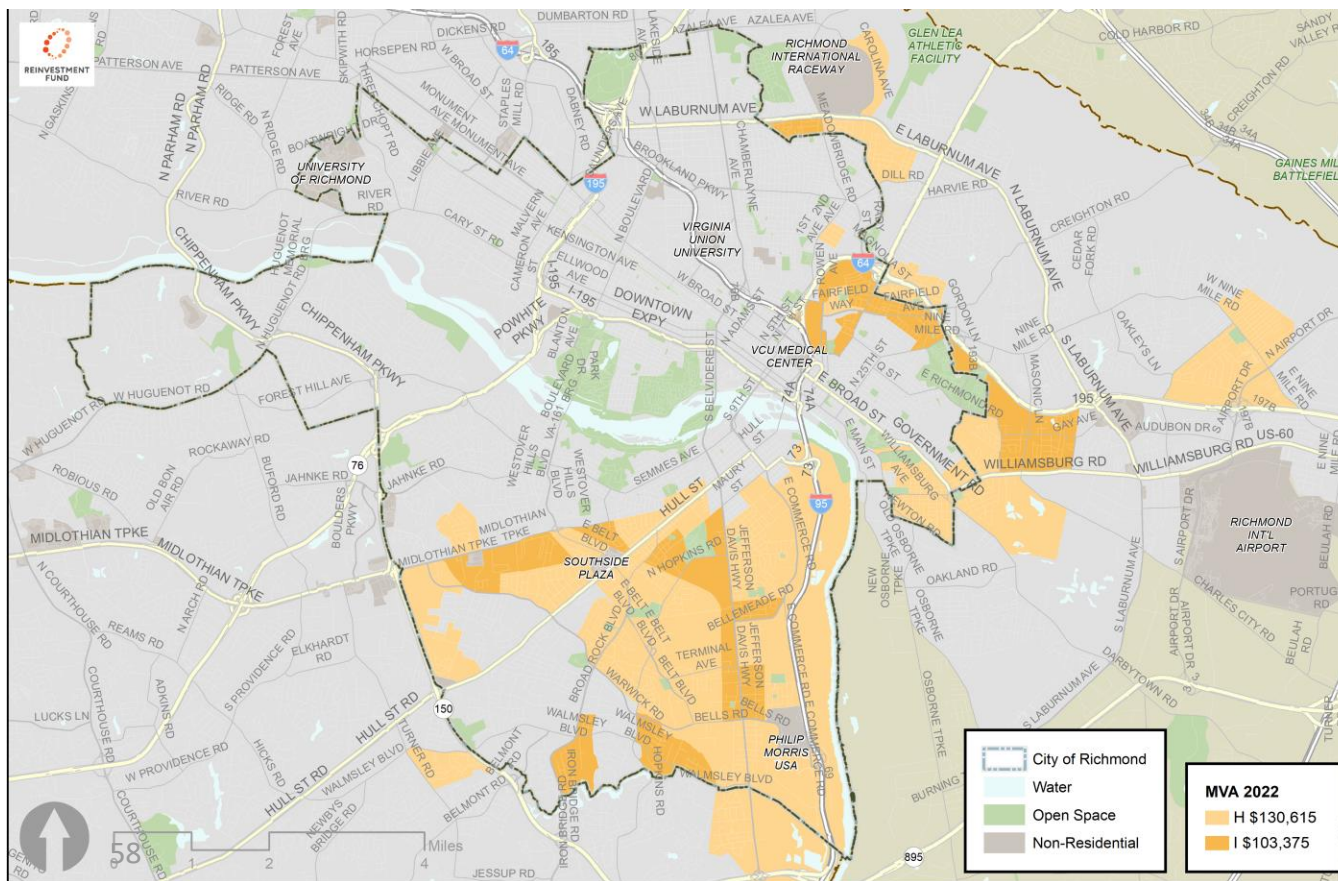
- Lowest priced markets
- H markets are a mix of renters and owners
- H markets have above average bank sales
- I markets have widest variation in sales prices
- I markets are mostly renters
- Most renters in I markets are subsidized

Orange Markets

# of Block Groups	Median Sales Price 2019-2021	Sales Price Variance, 2019-2021	Percent Bank Sales, 2019-2021	Owner Occupancy, 2015-19	Percent Subsidized Rental, 2021	Percent Vacant Residential, 2021	Housing Units per Acre, 2015-19	Percent Residential Parcels Built 2008-up	Percent Residential Parcels with Permits 2019-21	
H	41	\$130,615	0.77	12%	42%	9%	3%	5.3	2%	5%
I	14	\$103,375	1.07	10%	23%	95%	4%	5.7	4%	6%
Regional Block Group Average		\$292,885	0.60	7%	62%	17%	2%	5.3	4%	9%

Characteristics of Orange Markets

- Lowest priced markets
- H markets are a mix of renters and owners
- H markets have above average bank sales
- I markets have widest variation in sales prices
- I markets are mostly renters
- Most renters in I markets are subsidized



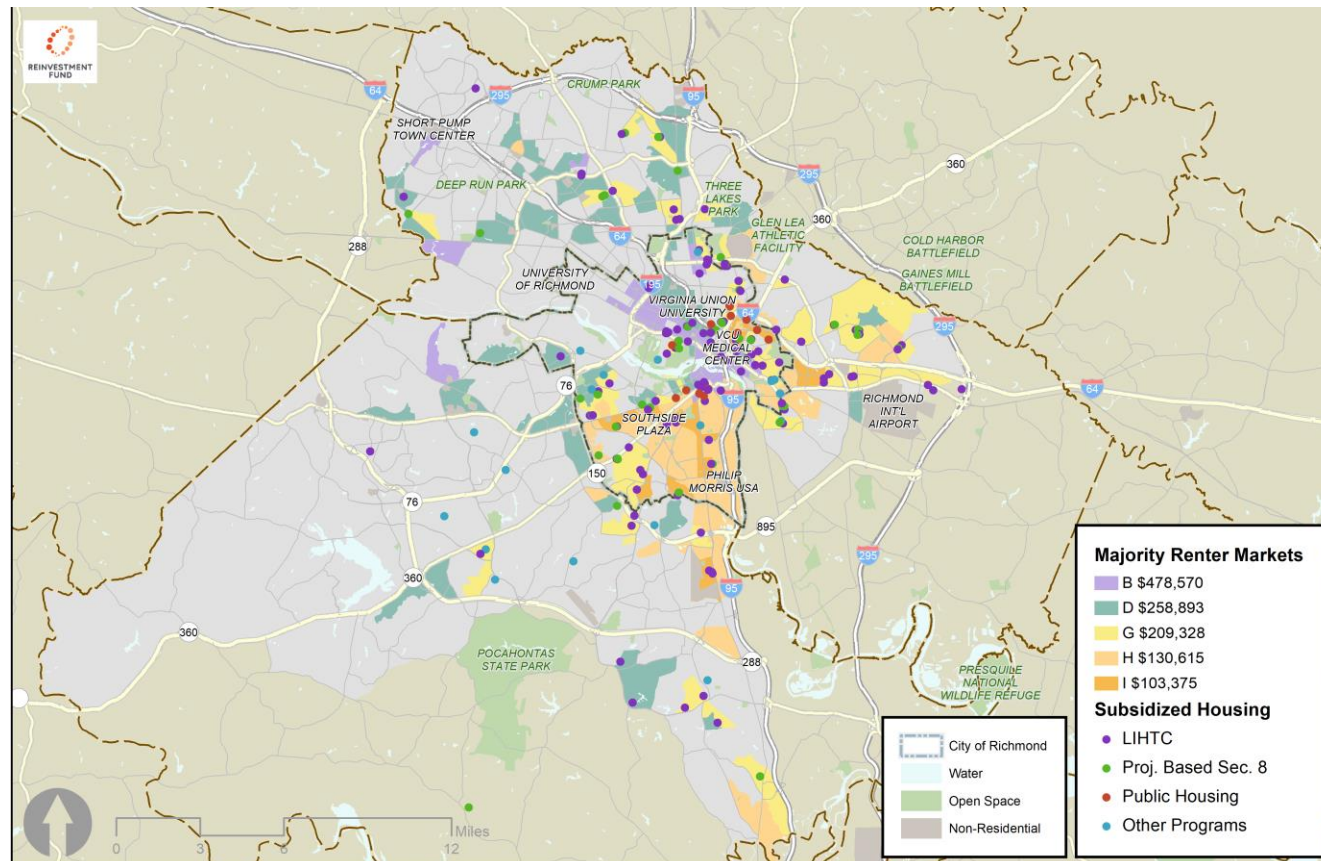


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MVA Rental Markets

Rental Markets in the 2022 MVA

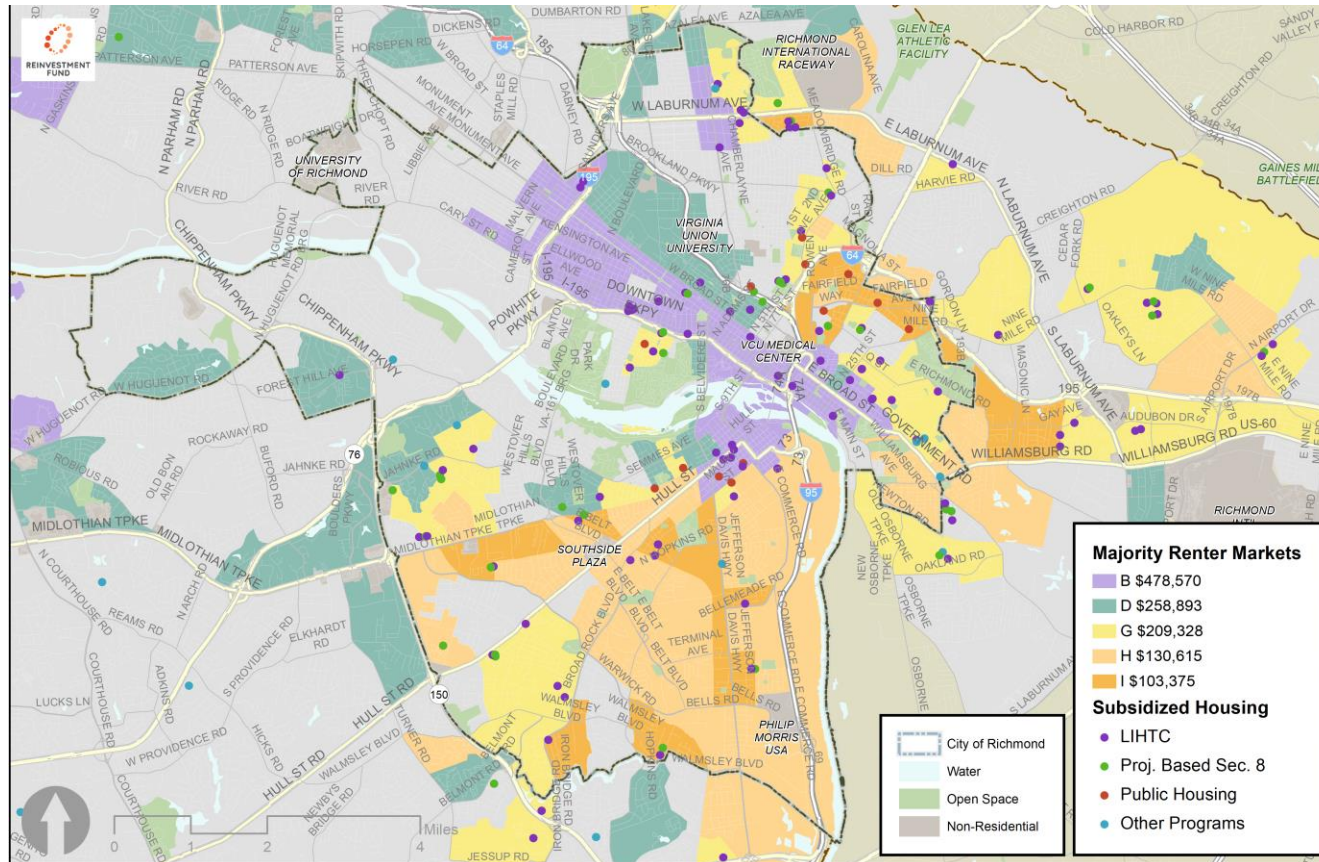
	# of Block Groups	Median Sales Price 2019-2021	Sales Price Variance, 2019-2021	Percent Bank Sales, 2019-2021	Owner Occupancy, 2015-19	Percent Subsidized Rental, 2021	Percent Vacant Residential, 2021	Housing Units per Acre, 2015-19	Percent Residential Parcels Built 2008-up	Percent Residential Parcels with Permits 2019-21
B	32	\$478,570	0.94	4%	29%	22%	2%	21.9	2%	10%
D	60	\$258,893	0.8	6%	34%	6%	1%	8	5%	8%
G	44	\$209,328	0.81	11%	44%	96%	3%	5	5%	10%
H	41	\$130,615	0.77	12%	42%	9%	3%	5.3	2%	5%
I	14	\$103,375	1.07	10%	23%	95%	4%	5.7	4%	6%



- Homes in B markets are well above regional average.
- B markets have the highest density.
- Majority of renters in G and I markets receiving subsidy.
- H and I markets are mostly within Richmond.
- B and I markets have the most variation in sales price
- Most subsidized rental housing is within Richmond.

Rental Markets in the 2022 MVA

	# of Block Groups	Median Sales Price 2019-2021	Sales Price Variance, 2019-2021	Percent Bank Sales, 2019-2021	Owner Occupancy, 2015-19	Percent Subsidized Rental, 2021	Percent Vacant Residential, 2021	Housing Units per Acre, 2015-19	Percent Residential Parcels Built 2008-up	Percent Residential Parcels with Permits 2019-21
B	32	\$478,570	0.94	4%	29%	22%	2%	21.9	2%	10%
D	60	\$258,893	0.8	6%	34%	6%	1%	8	5%	8%
G	44	\$209,328	0.81	11%	44%	96%	3%	5	5%	10%
H	41	\$130,615	0.77	12%	42%	9%	3%	5.3	2%	5%
I	14	\$103,375	1.07	10%	23%	95%	4%	5.7	4%	6%



- Homes in B markets are well above regional average.
- B markets have the highest density.
- Majority of renters in G and I markets receiving subsidy.
- H and I markets are mostly within Richmond.
- B and I markets have the most variation in sales price.

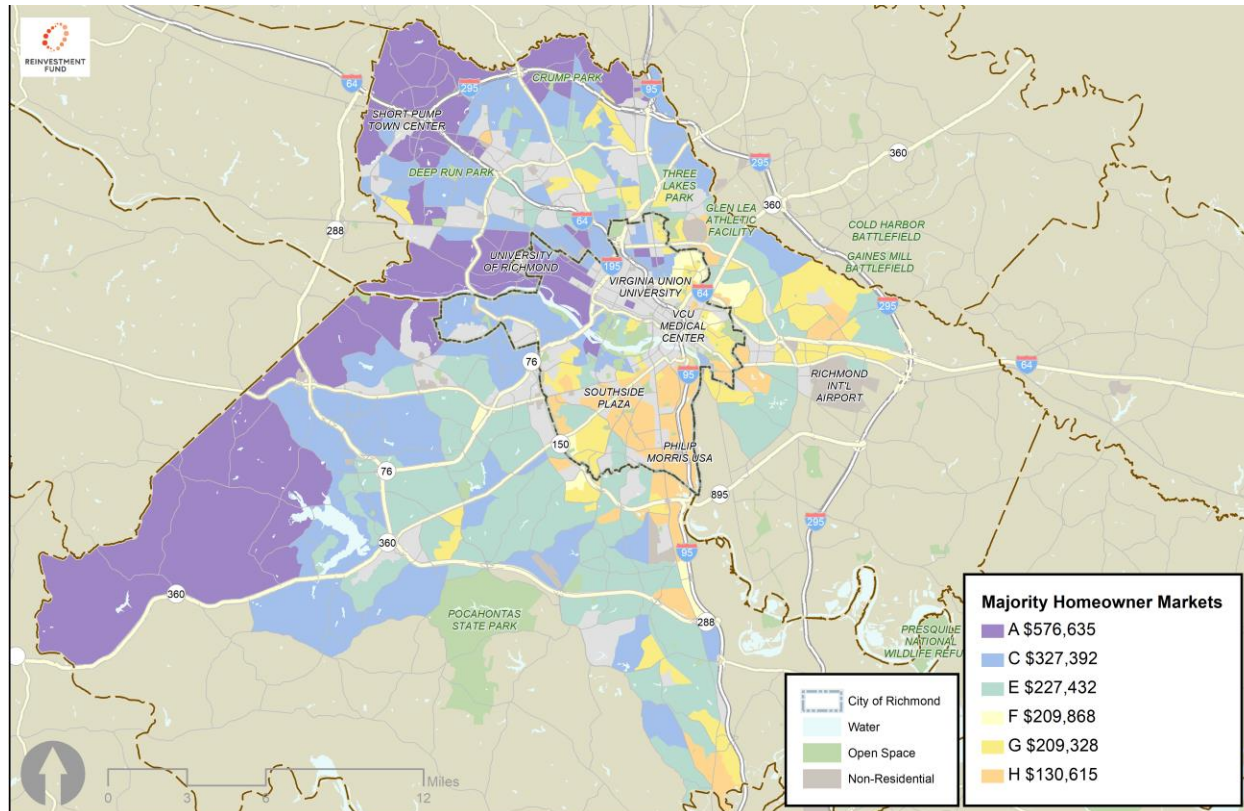


REINVESTMENT
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MVA Homeowner Markets

Homeowner Markets in the 2022 MVA

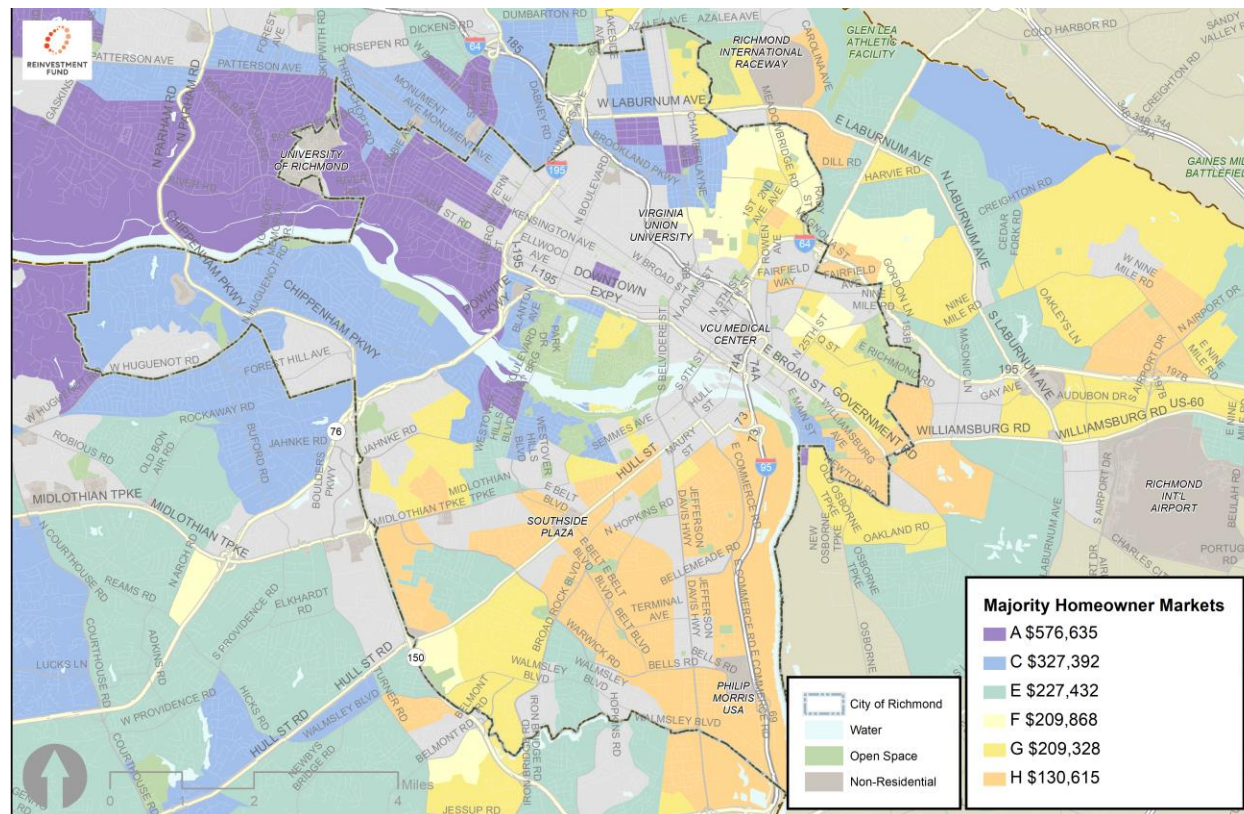
	# of Block Groups	Median Sales Price 2019-2021	Sales Price Variance, 2019-2021	Percent Bank Sales, 2019-2021	Owner Occupancy, 2015-19	Percent Subsidized Rental, 2021	Percent Vacant Residential, 2021	Housing Units per Acre, 2015-19	Percent Residential Parcels Built 2008-up	Percent Residential Parcels with Permits 2019-21
A	49	\$576,635	0.63	2%	86%	1%	0%	2.8	12%	17%
C	97	\$327,392	0.37	4%	84%	3%	1%	3.1	4%	9%
E	102	\$227,432	0.37	7%	81%	5%	0%	2.5	3%	6%
F	18	\$209,868	0.5	23%	59%	9%	7%	4.9	3%	15%
G	44	\$209,328	0.81	11%	44%	96%	3%	5	5%	10%
H	41	\$130,615	0.77	12%	42%	9%	3%	5.3	2%	5%



- A and C markets have highest sale prices
- A and F markets have the highest levels of permitting activity
- F markets have the highest share of bank owned sales
- G and H markets are majority rental markets but have many homeowners and are the most affordable

Homeowner Markets in the 2022 MVA

	# of Block Groups	Median Sales Price 2019-2021	Sales Price Variance, 2019-2021	Percent Bank Sales, 2019-2021	Owner Occupancy, 2015-19	Percent Subsidized Rental, 2021	Percent Vacant Residential, 2021	Housing Units per Acre, 2015-19	Percent Residential Parcels Built 2008-up	Percent Residential Parcels with Permits 2019-21
A	49	\$576,635	0.63	2%	86%	1%	0%	2.8	12%	17%
C	97	\$327,392	0.37	4%	84%	3%	1%	3.1	4%	9%
E	60	\$258,893	0.8	6%	34%	6%	1%	8	5%	8%
F	18	\$209,868	0.5	23%	59%	9%	7%	4.9	3%	15%
G	44	\$209,328	0.81	11%	44%	96%	3%	5	5%	10%
H	41	\$130,615	0.77	12%	42%	9%	3%	5.3	2%	5%



- A and C markets have highest sale prices
- A and F markets have the highest levels of permitting activity.
- F markets have the highest share of bank owned sales
- G and H markets are majority rental markets but have many homeowners and are the most affordable



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Displacement Risk Ratio

Measuring Resident Displacement Risk

The **Displacement Risk Ratio (DRR)** is calculated by taking the ratio between median sales prices over time and the income of a long-term resident at a fixed point in time (2010) and annually adjusted using the Consumer Price Index.

Sample Displacement Risk Ratio

$$DRR = \frac{\text{Median Home Sale Price}_{yr_1+yr_2}}{\text{Median Family Income (inflation adjusted)}} - \text{Area Trend}$$

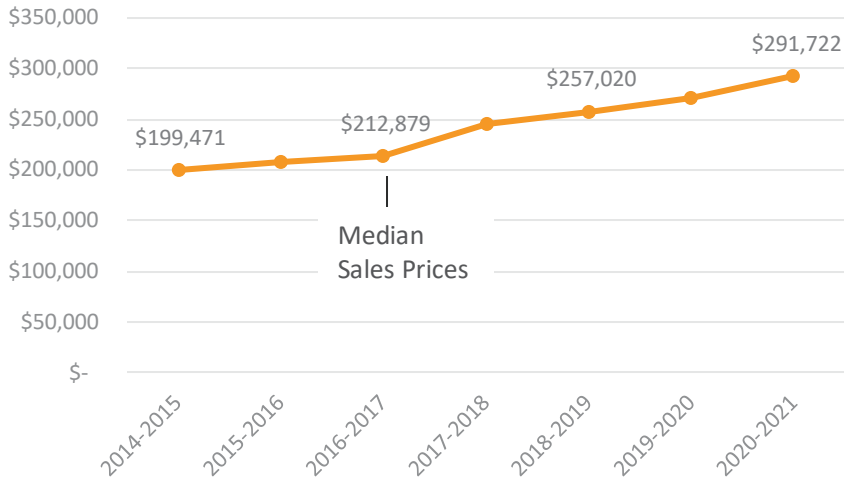
High or rising DRR values signal longtime residents, or new residents with incomes like those of legacy residents, may be experiencing displacement pressure associated with elevated housing prices.

Negative or declining DRR values indicate that housing prices are not keeping pace with larger market trends, which in weak or fragile markets may signal housing market decline.

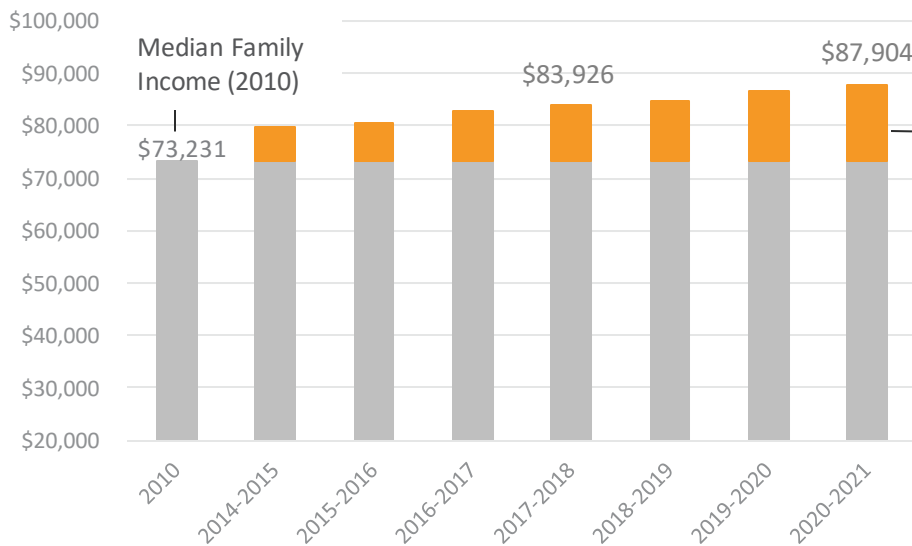
Calculating Regional Displacement Risk Ratios

1 Regional Median Home Sales Price

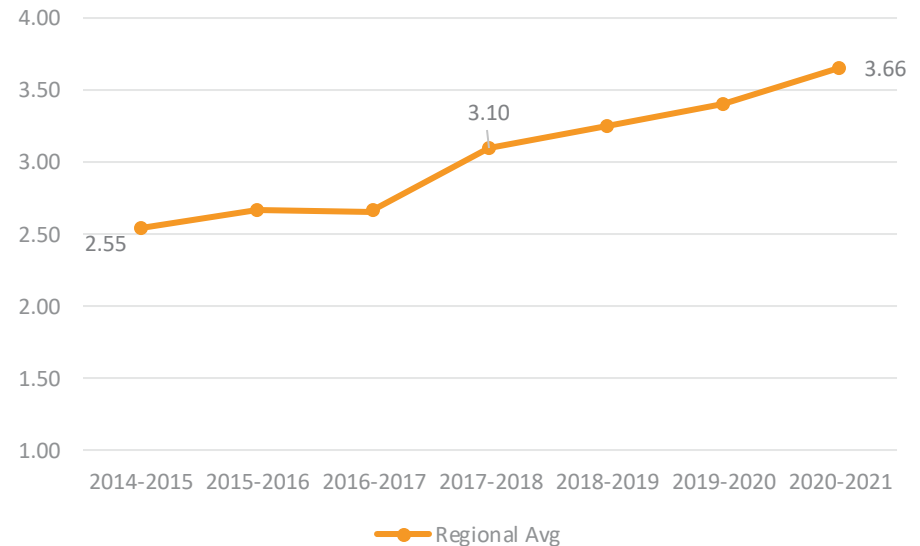
Regional DRR values have risen steadily since 2016/17



2 Inflation Indexed Family Income



3 Regional Ratio of Price to Income (DRR)



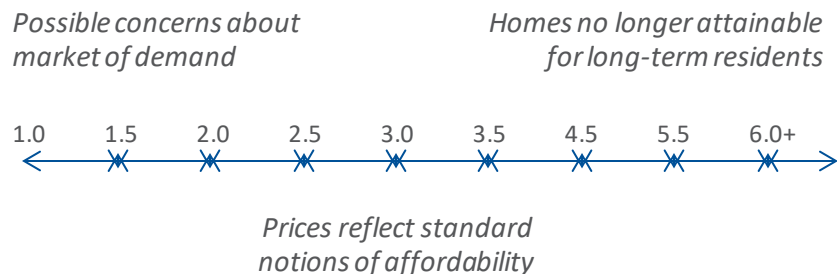
Income from 2010 Indexed to Inflation

Interpreting DRR Values

Higher DRR values reflect a more challenging environment for long-term residents and the possibility of displacement pressure...

Regional DRR Scores in the Greater Richmond area are high compared with other areas where RF recently completed DRR analyses.

Interpreting Displacement Risk Ratio Values

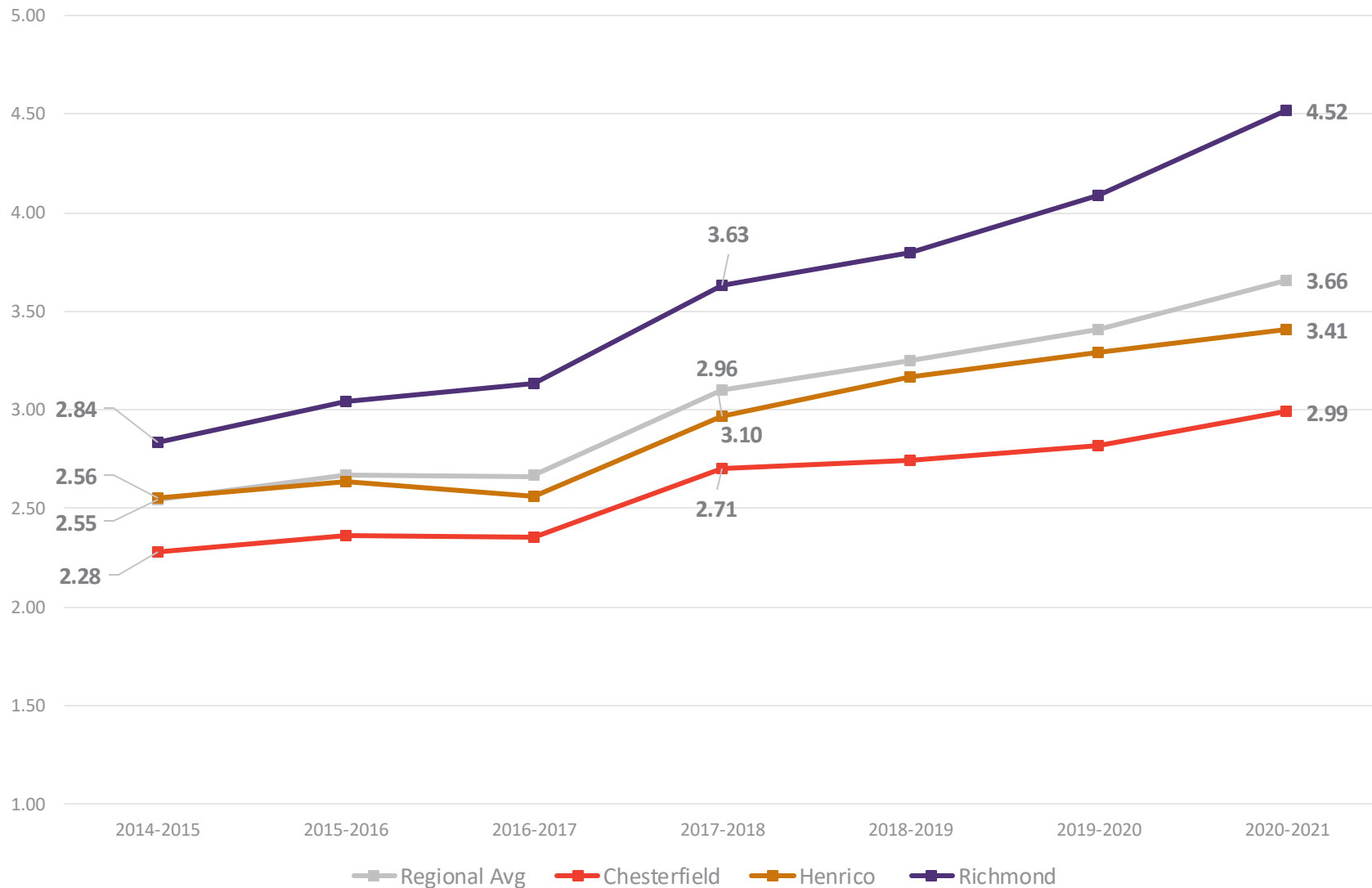


... Lower values may reflect a lack of market value and associated issues like deferred maintenance, lack of investment. Over time this can develop into concerns with excess housing supply or vacancy/abandonment.

Citywide Scores in the Greater Richmond Study Area Are High

	Area Average DRR (2019/20) or 2020/21)
Miami	7.03
Greater Richmond Study Area	3.66
Spokane County	3.62
Philadelphia	2.56
Kansas City	2.49
St. Louis	2.25
Pittsburgh	2.12
Cleveland	0.84
Detroit	0.35

Regional Displacement Risk Ratios by County



Change in Displacement Risk Ratio

2014/15 to 2020/21

Displacement Risk Ratio, 2014-15 to 2020-21

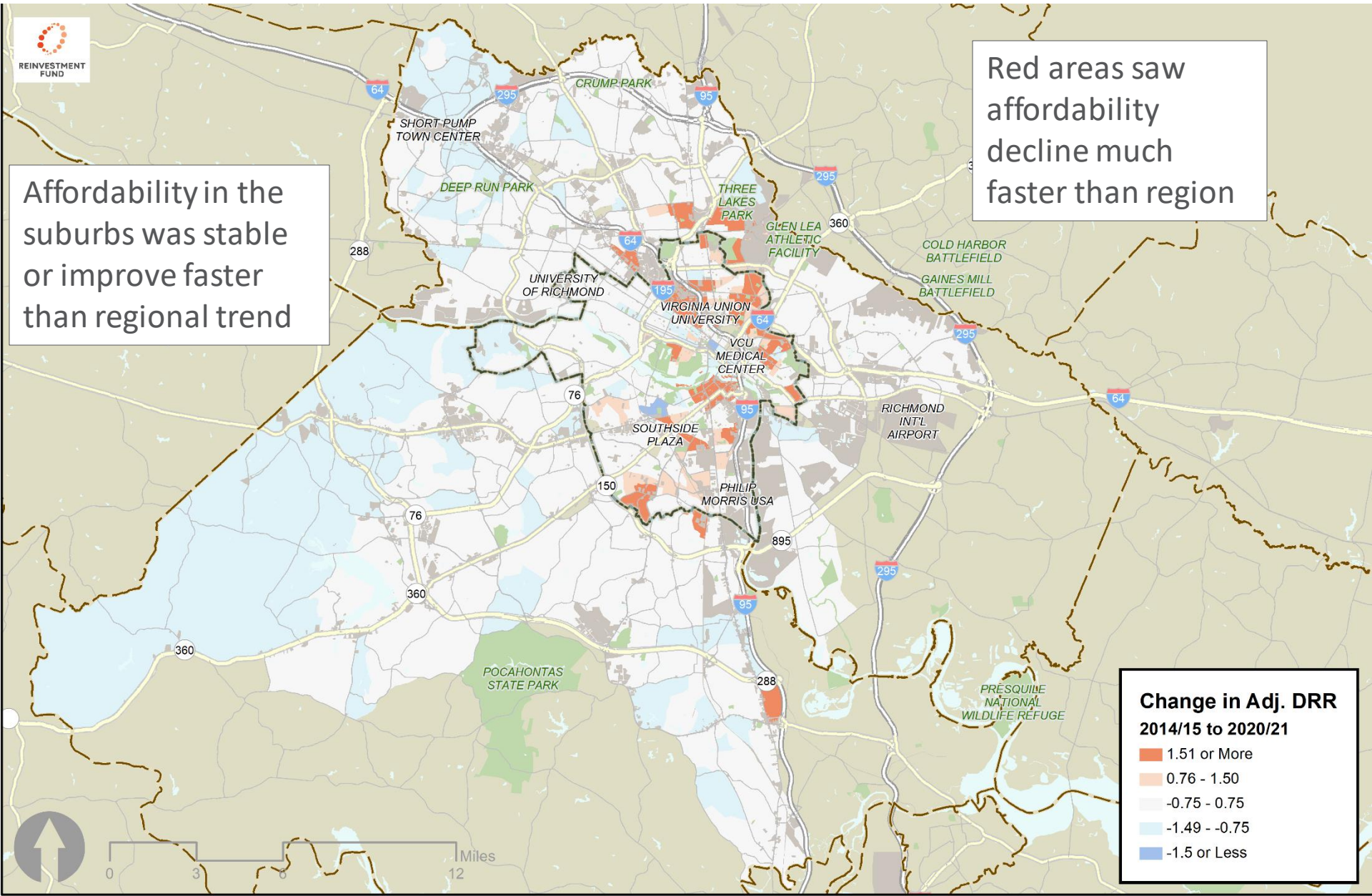


Affordability in the suburbs was stable or improve faster than regional trend

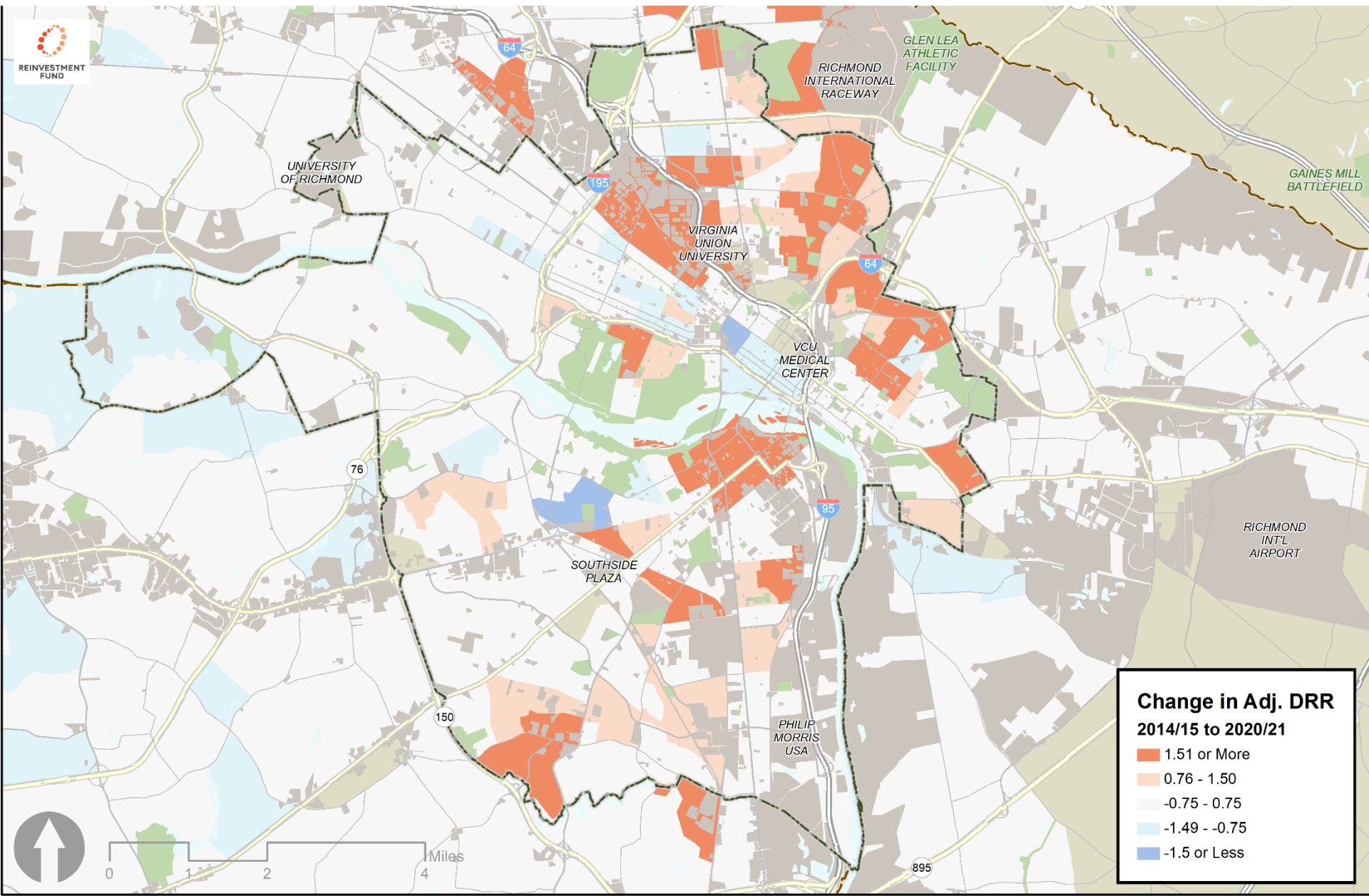
Red areas saw affordability decline much faster than region

**Change in Adj. DRR
2014/15 to 2020/21**

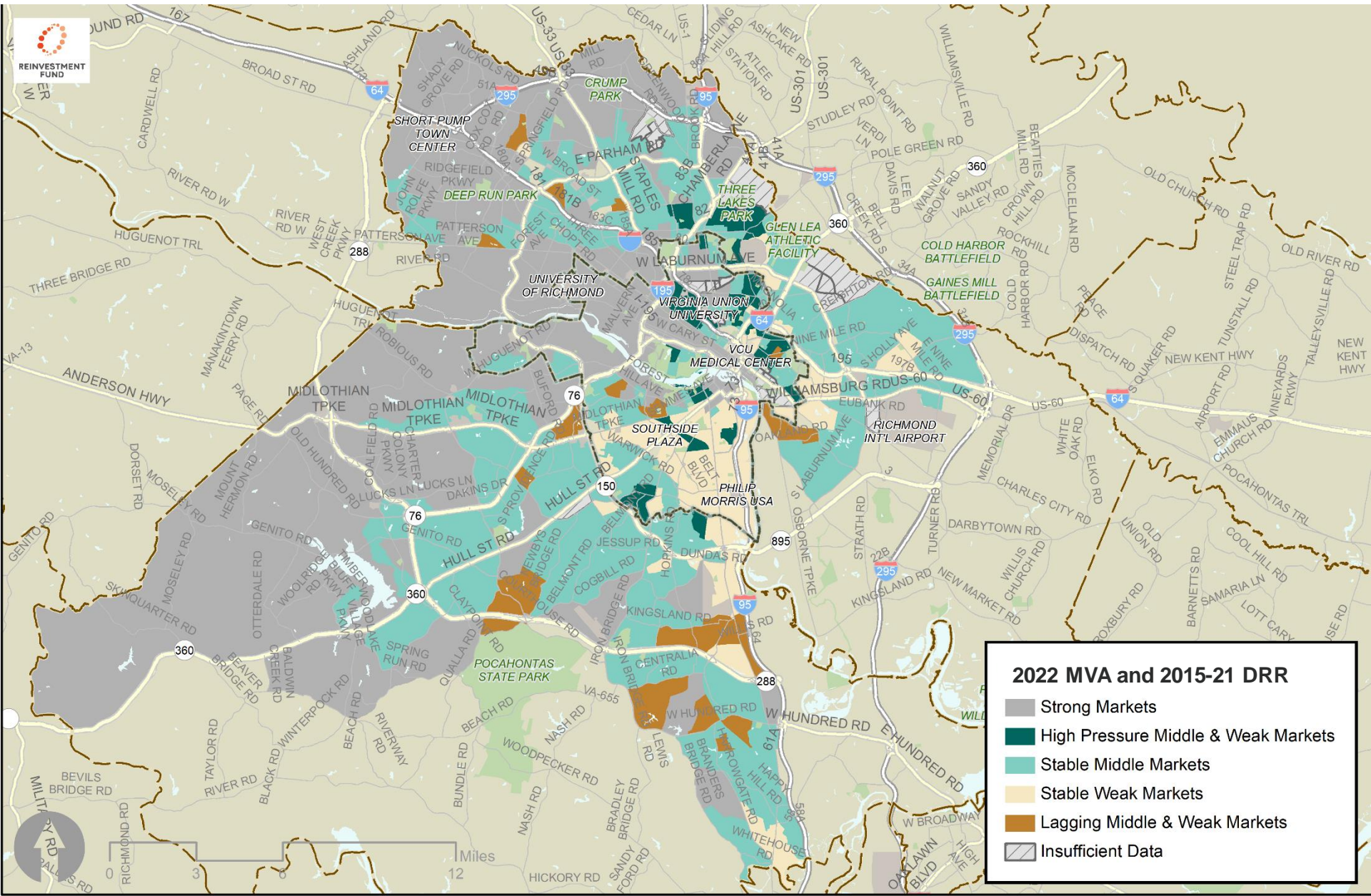
- 1.51 or More
- 0.76 - 1.50
- 0.75 - 0.75
- 1.49 - -0.75
- 1.5 or Less



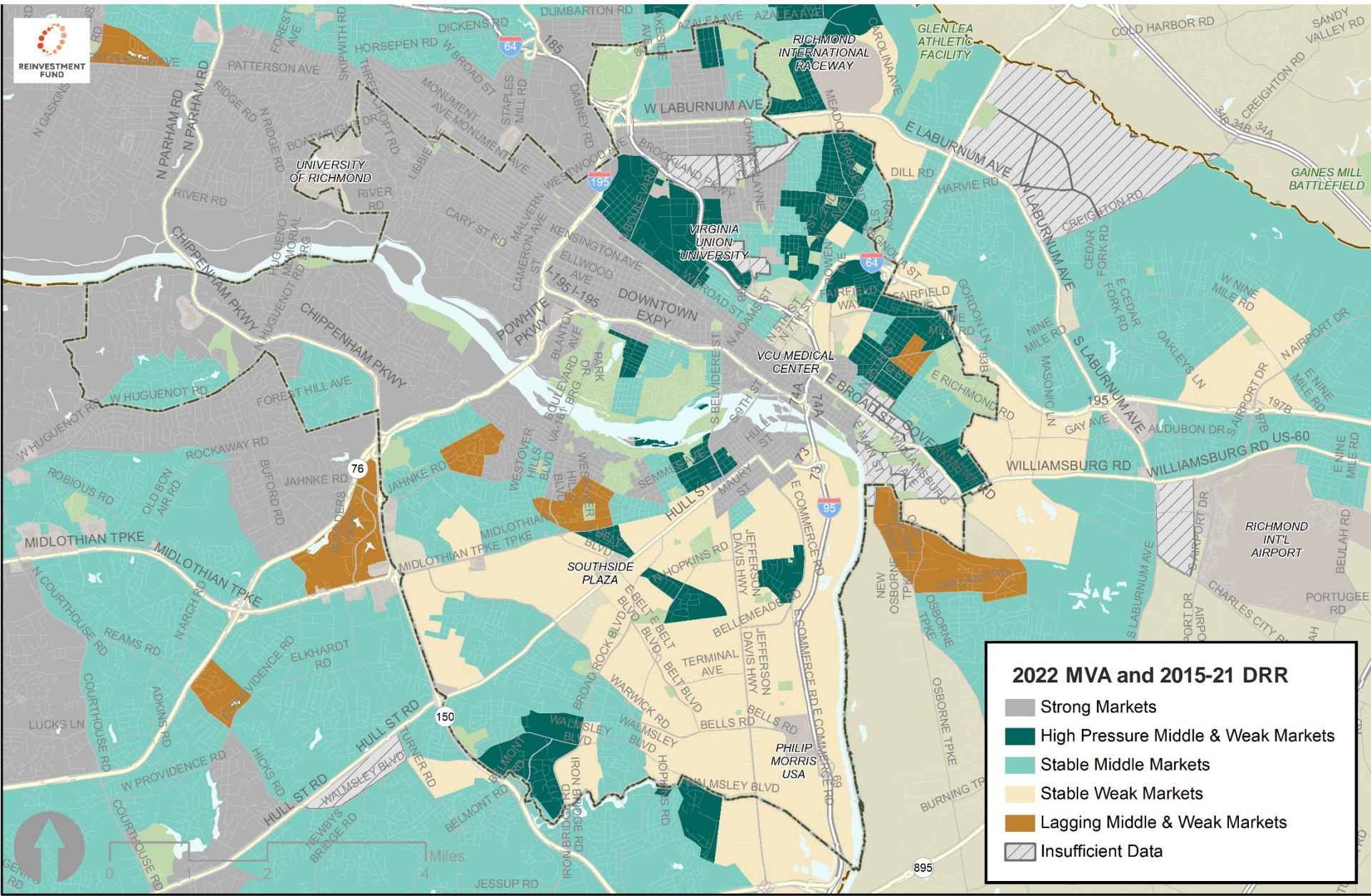
Displacement Risk Ratio, 2014-15 to 2020-21



2022 MVA and 2015-21 DRR Change



2022 MVA and 2015-21 DRR Change





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Housing Affordability

Where Can Chesterfield County Residents Afford to Purchase Homes in Chesterfield?

Share of Block Groups Where Residents Can Afford to Purchase the Median Home, by Median Household Income (HHINC)

	# of Block Groups	Areas Affordable at 200% Median HHINC	Areas Affordable at 120% Median HHINC	Areas Affordable at 100% Median HHINC	Areas Affordable at 80% Median HHINC	Areas Affordable at 50% Median HHINC
		Chesterfield: \$165,198	Chesterfield: \$99,119	Chesterfield: \$82,599	Chesterfield: \$66,079	Chesterfield: \$41,300
A	8	63%	0%	0%	0%	0%
B	1	0%*	0%	0%	0%	0%
C	35	100%	26%	0%	0%	0%
D	13	100%	92%	46%	8%	0%
E	65	100%	100%	66%	14%	0%
F	3	100%	100%	67%	67%	0%
G	6	100%	100%	50%*	17%*	0%
H	8	100%	100%	100%	100%	25%
I	1	100%	100%	100%	100%	0%*

* In the aggregate markets earlier in the alphabet have a higher median sales price than those later in the alphabet. But due to variation within each market and the mix of markets in each county, it is possible for there to be more affordable block groups in what is usually a higher priced market (e.g. more affordable F markets than G markets).

Where Can Henrico County Residents Afford to Purchase Homes in Henrico?

Share of Block Groups Where Residents Can Afford to Purchase the Median Home, by Median Household Income (HHINC)

	# of Block Groups	Areas Affordable at 200% Median HHINC	Areas Affordable at 120% Median HHINC	Areas Affordable at 100% Median HHINC	Areas Affordable at 80% Median HHINC	Areas Affordable at 50% Median HHINC
		Henrico: \$140,614	Henrico: \$84,368	Henrico: \$70,307	Henrico: \$56,246	Henrico: \$35,154
A	29	17%	0%	0%	0%	0%
B	3	33%*	33%	33%	0%	0%
C	38	97%	5%*	3%*	0%	0%
D	30	100%	60%	13%	0%	0%
E	27	100%	93%	41%	7%*	0%
F	1	100%	100%	100%	0%	0%
G	17	100%	76%*	59%*	35%	0%
H	8	100%	100%	100%	75%	0%
I	2	100%	100%	100%	100%	100%

* In the aggregate markets earlier in the alphabet have a higher median sales price than those later in the alphabet. But due to variation within each market and the mix of markets in each county, it is possible for there to be more affordable block groups in what is usually a higher priced market (e.g. more affordable F markets than G markets).

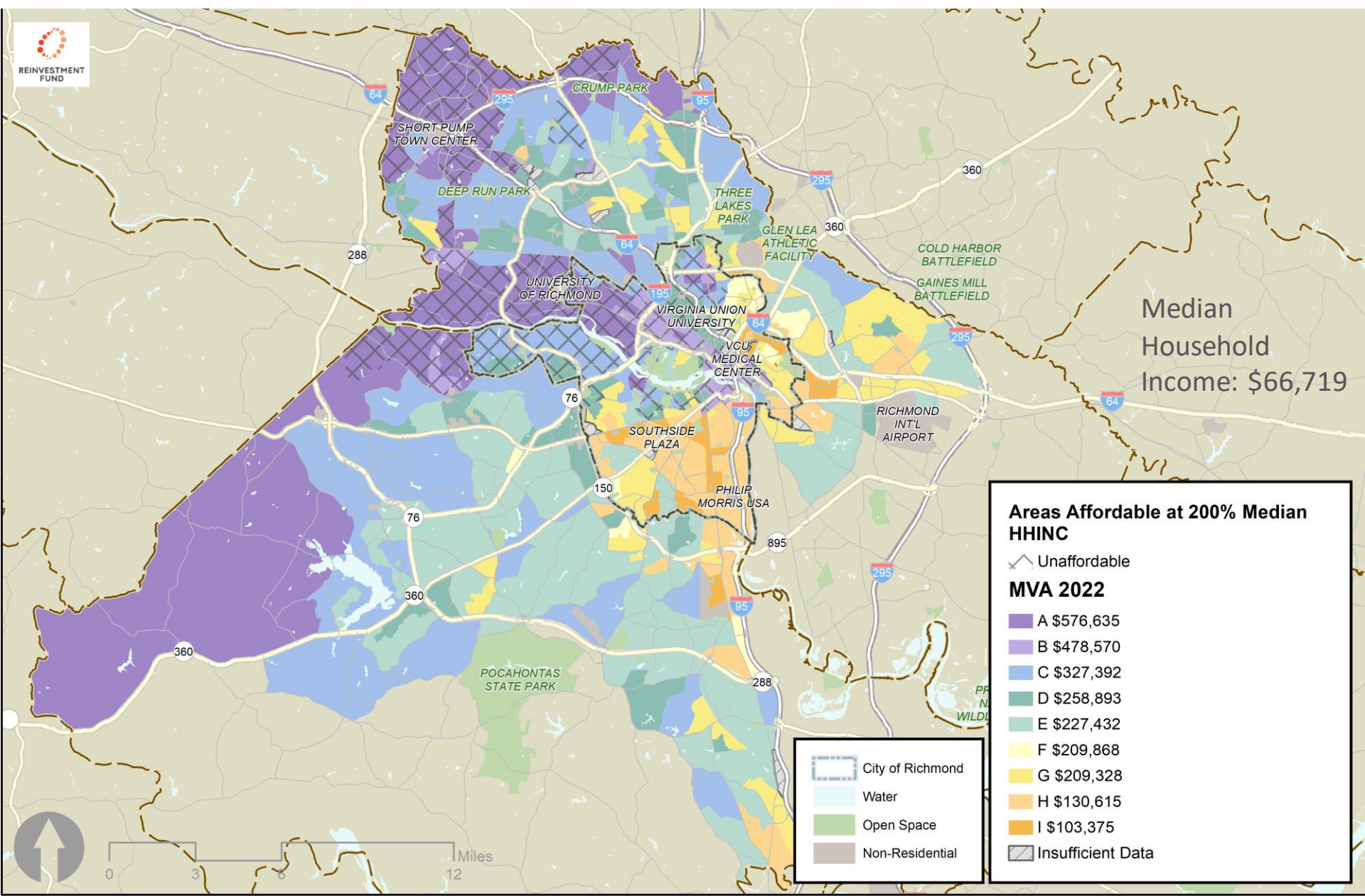
Where Can Richmond County Residents Afford to Purchase Homes in Richmond?

Share of Block Groups Where Residents Can Afford to Purchase the Median Home, by Median Household Income (HHINC)

	# of Block Groups	Areas Affordable at 200% Median HHINC	Areas Affordable at 120% Median HHINC	Areas Affordable at 100% Median HHINC	Areas Affordable at 80% Median HHINC	Areas Affordable at 50% Median HHINC
		Richmond: \$94,500	Richmond: \$56,700	Richmond: \$47,250	Richmond: \$37,800	Richmond: \$23,625
A	10	0%	0%	0%	0%	0%
B	24	4%	0%	0%	0%	0%
C	20	13%	0%	0%	0%	0%
D	17	35%	0%	0%	0%	0%
E	7	100%*	43%	0%	0%	0%
F	14	93%	29%*	0%	0%	0%
G	21	90%	19%*	0%	0%	0%
H	24	100%	92%	64%	40%	4%
I	11	100%	100%	91%	64%	9%

* In the aggregate markets earlier in the alphabet have a higher median sales price than those later in the alphabet. But due to variation within each market and the mix of markets in each county, it is possible for there to be more affordable block groups in what is usually a higher priced market (e.g. more affordable F markets than G markets).

Housing Affordability: 200% Median Household Income



Median Household Income: \$66,719

Areas Affordable at 200% Median HHINC

- Unaffordable

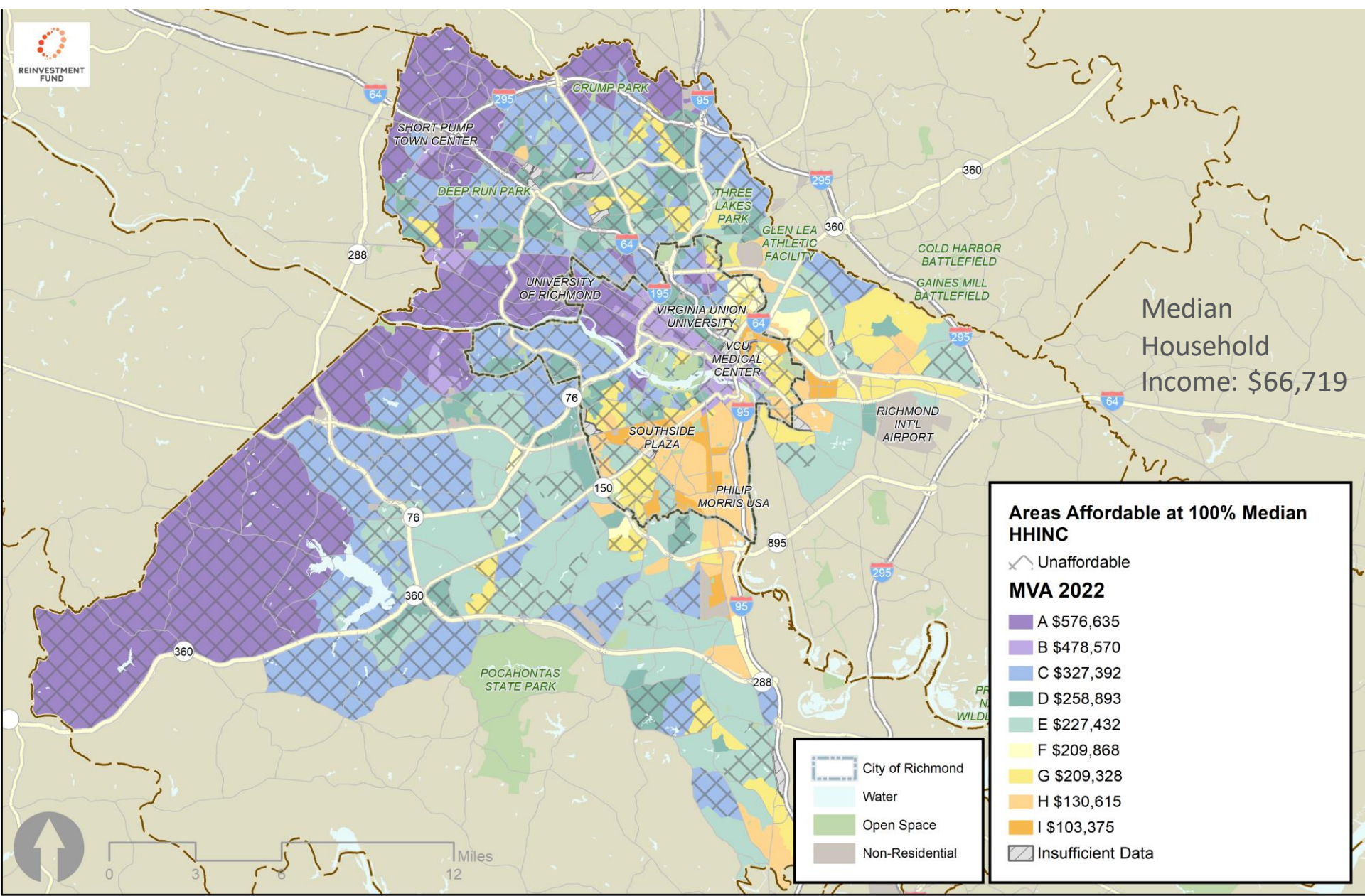
MVA 2022

- A \$576,635
- B \$478,570
- C \$327,392
- D \$258,893
- E \$227,432
- F \$209,868
- G \$209,328
- H \$130,615
- I \$103,375
- Insufficient Data

- City of Richmond
- Water
- Open Space
- Non-Residential



Housing Affordability: 100% Median Household Income



Median Household Income: \$66,719

Areas Affordable at 100% Median HHINC

- ✕ Unaffordable

MVA 2022

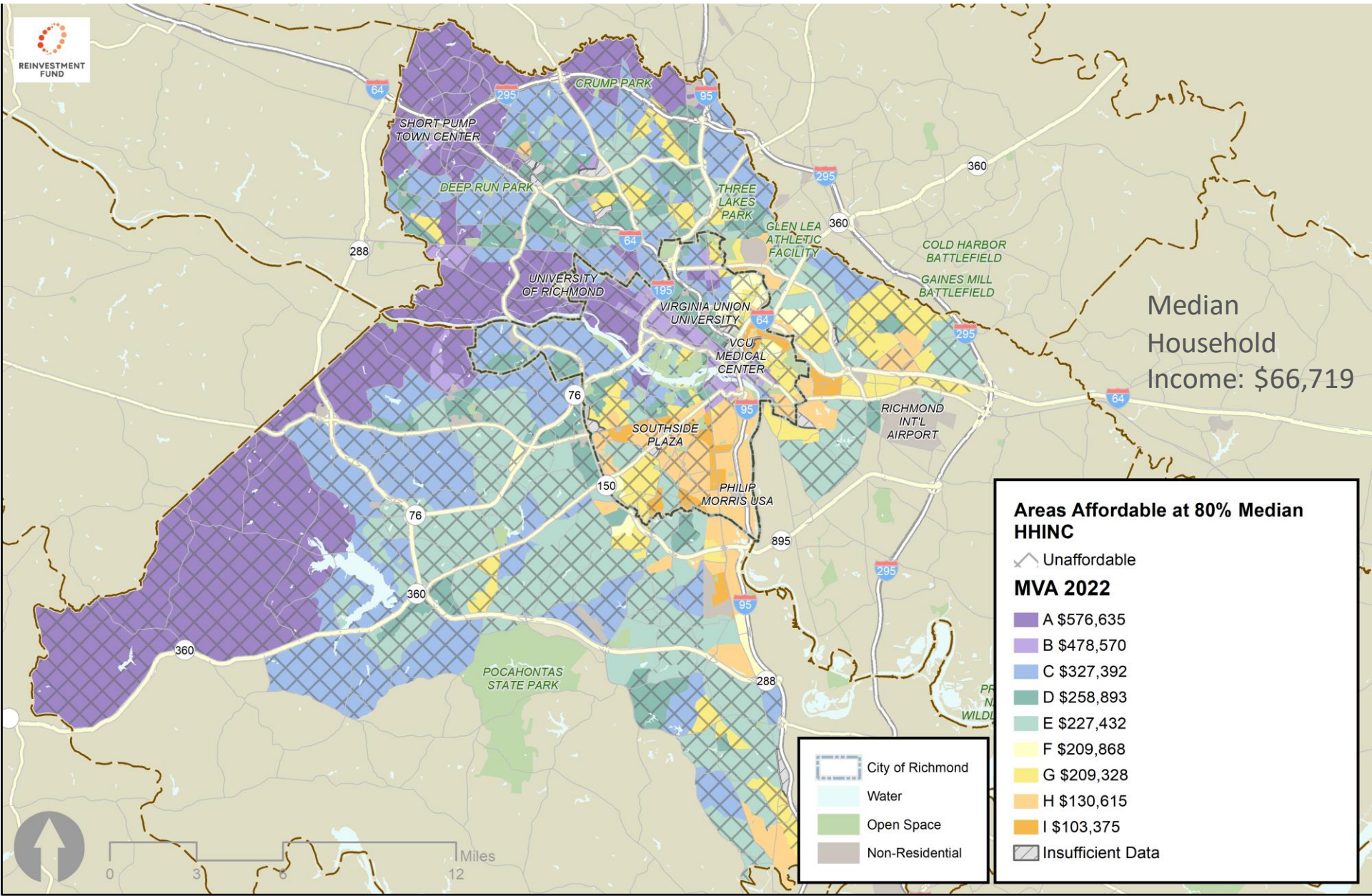
- A \$576,635
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- G \$209,328
- H \$130,615
- I \$103,375

▨ Insufficient Data

- ▭ City of Richmond
- ▭ Water
- ▭ Open Space
- ▭ Non-Residential



Housing Affordability: 80% Median Household Income



Median Household Income: \$66,719

Areas Affordable at 80% Median HHINC

- Unaffordable

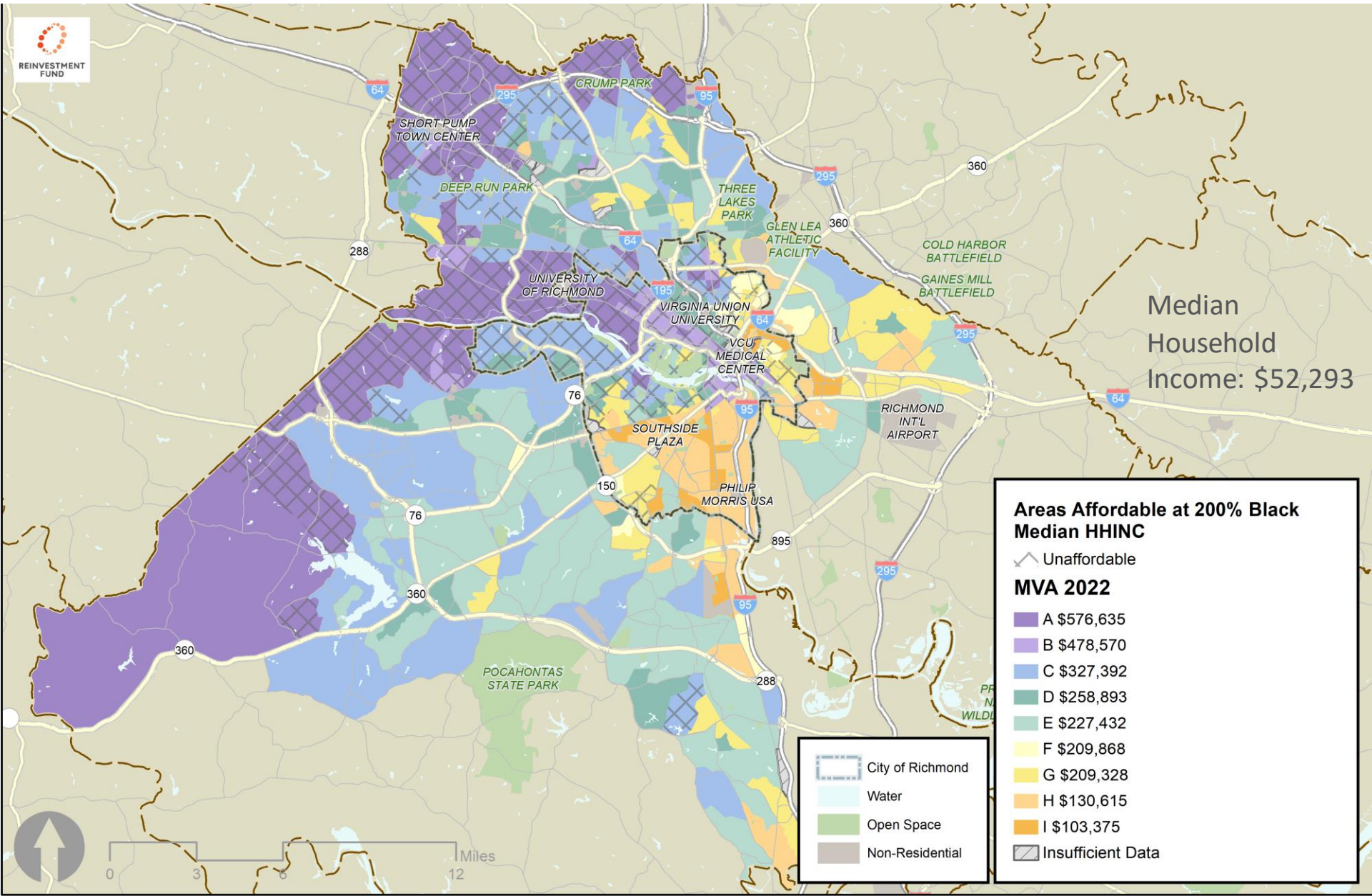
MVA 2022

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- G \$209,328
- H \$130,615
- I \$103,375
- Insufficient Data

- City of Richmond
- Water
- Open Space
- Non-Residential



Housing Affordability: 200% Median Household Income for Black Households



Median Household Income: \$52,293

Areas Affordable at 200% Black Median HHINC

- Unaffordable

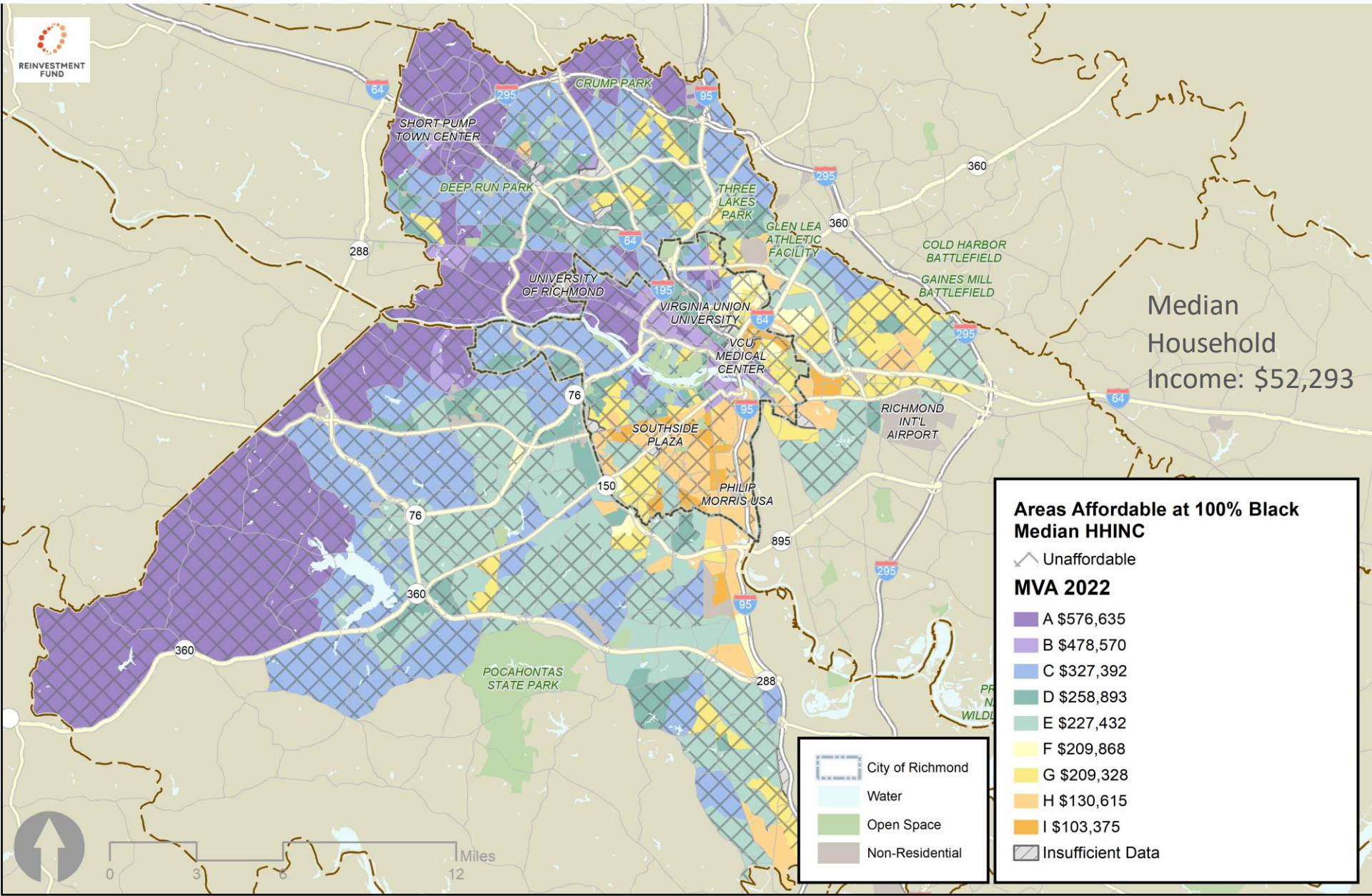
MVA 2022

- A \$576,635
- B \$478,570
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- D \$258,893
- E \$227,432
- F \$209,868
- G \$209,328
- H \$130,615
- I \$103,375
- Insufficient Data

- City of Richmond
- Water
- Open Space
- Non-Residential



Housing Affordability: 100% Median Household Income for Black Households



Median Household Income: \$52,293

Areas Affordable at 100% Black Median HHINC

- Unaffordable

MVA 2022

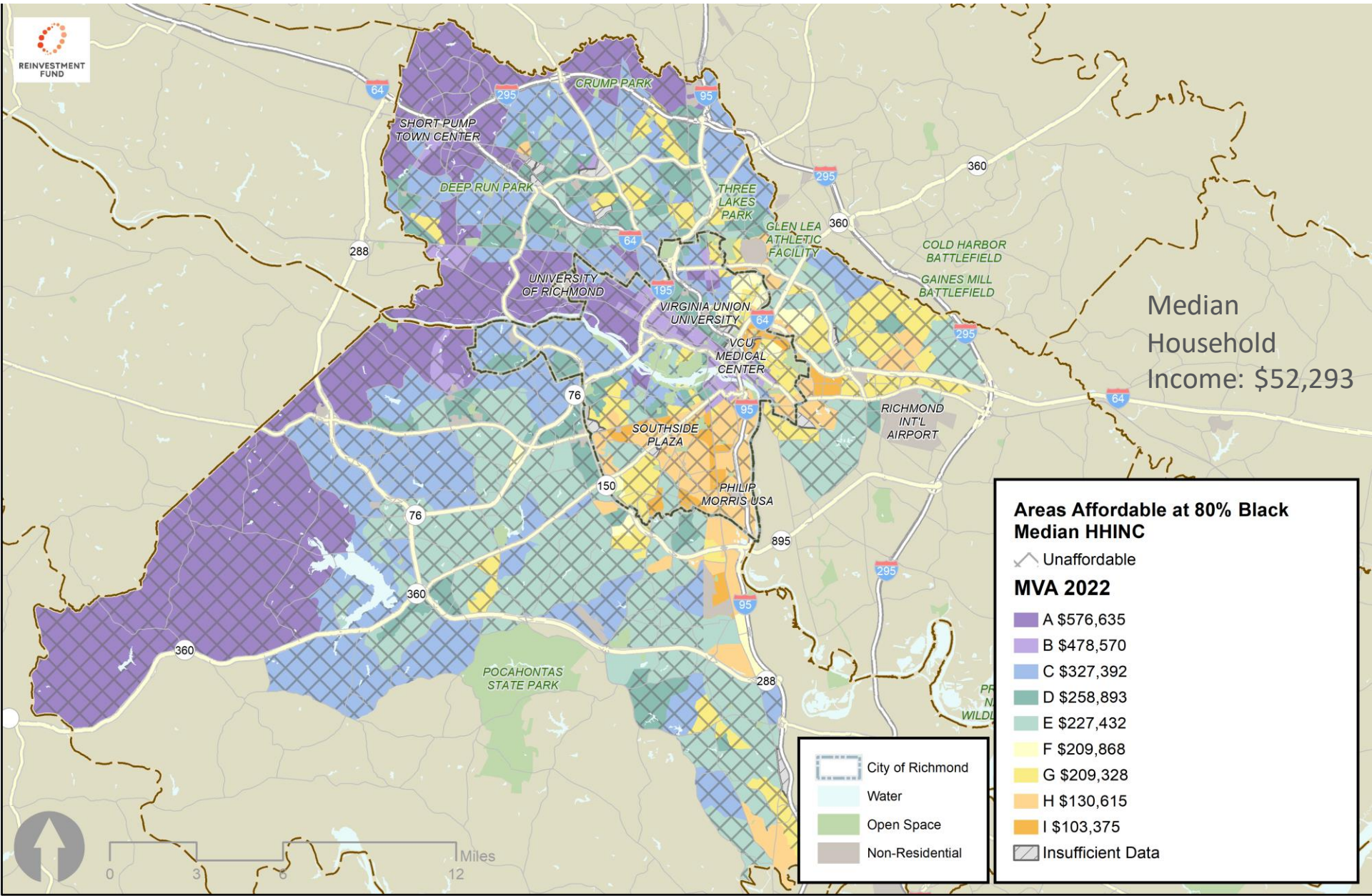
- A \$576,635
- B \$478,570
- C \$327,392
- D \$258,893
- E \$227,432
- F \$209,868
- G \$209,328
- H \$130,615
- I \$103,375
- Insufficient Data

- City of Richmond
- Water
- Open Space
- Non-Residential



0 3 6 9 12 Miles

Housing Affordability: 80% Median Household Income for Black Households



Median Household Income: \$52,293

Areas Affordable at 80% Black Median HHINC

- Unaffordable

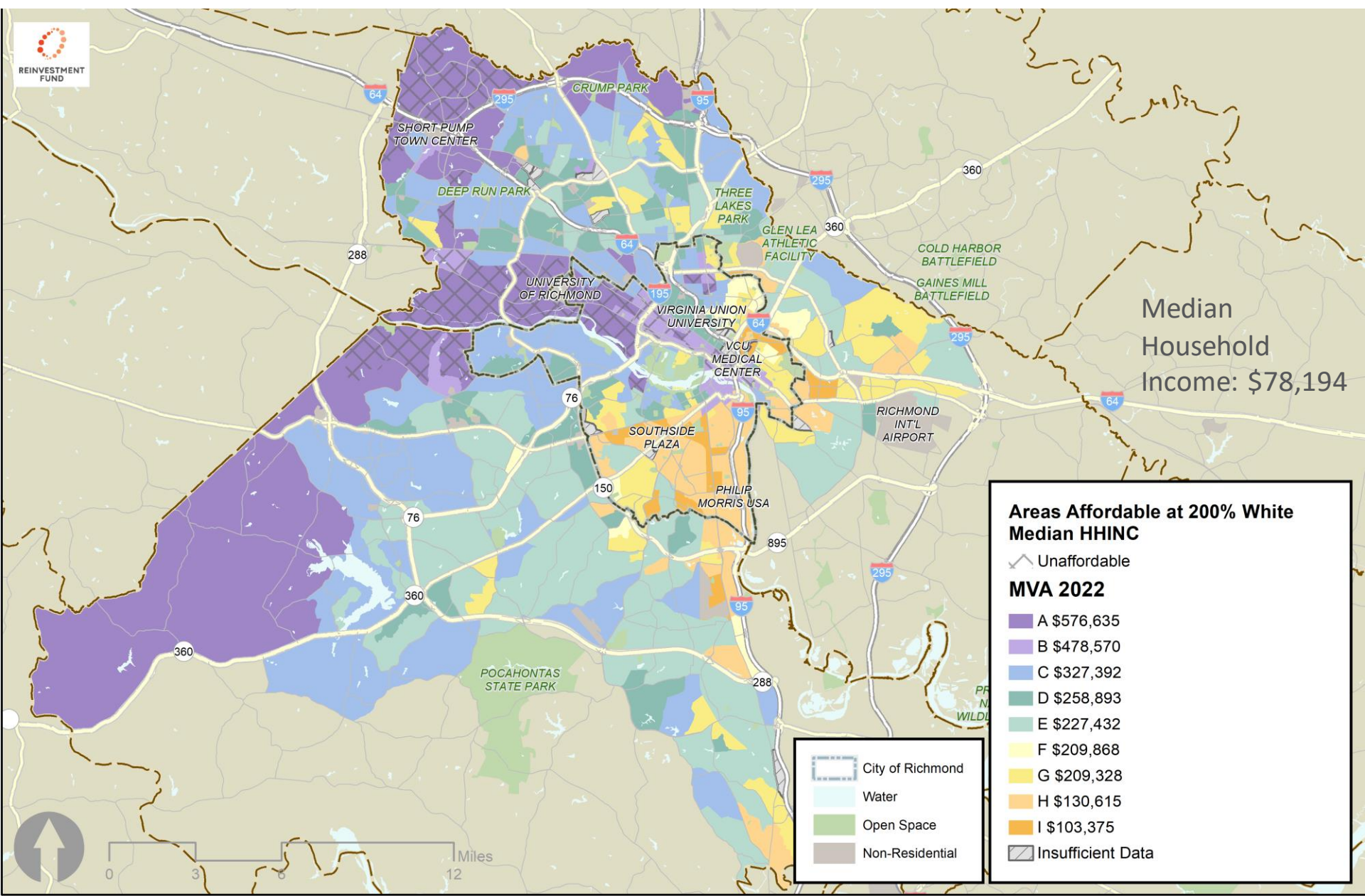
MVA 2022

- A \$576,635
- B \$478,570
- C \$327,392
- D \$258,893
- E \$227,432
- F \$209,868
- G \$209,328
- H \$130,615
- I \$103,375
- Insufficient Data

- City of Richmond
- Water
- Open Space
- Non-Residential



Housing Affordability: 200% Median Household Income for White Households



Median Household Income: \$78,194

Areas Affordable at 200% White Median HHINC

- ⚡ Unaffordable

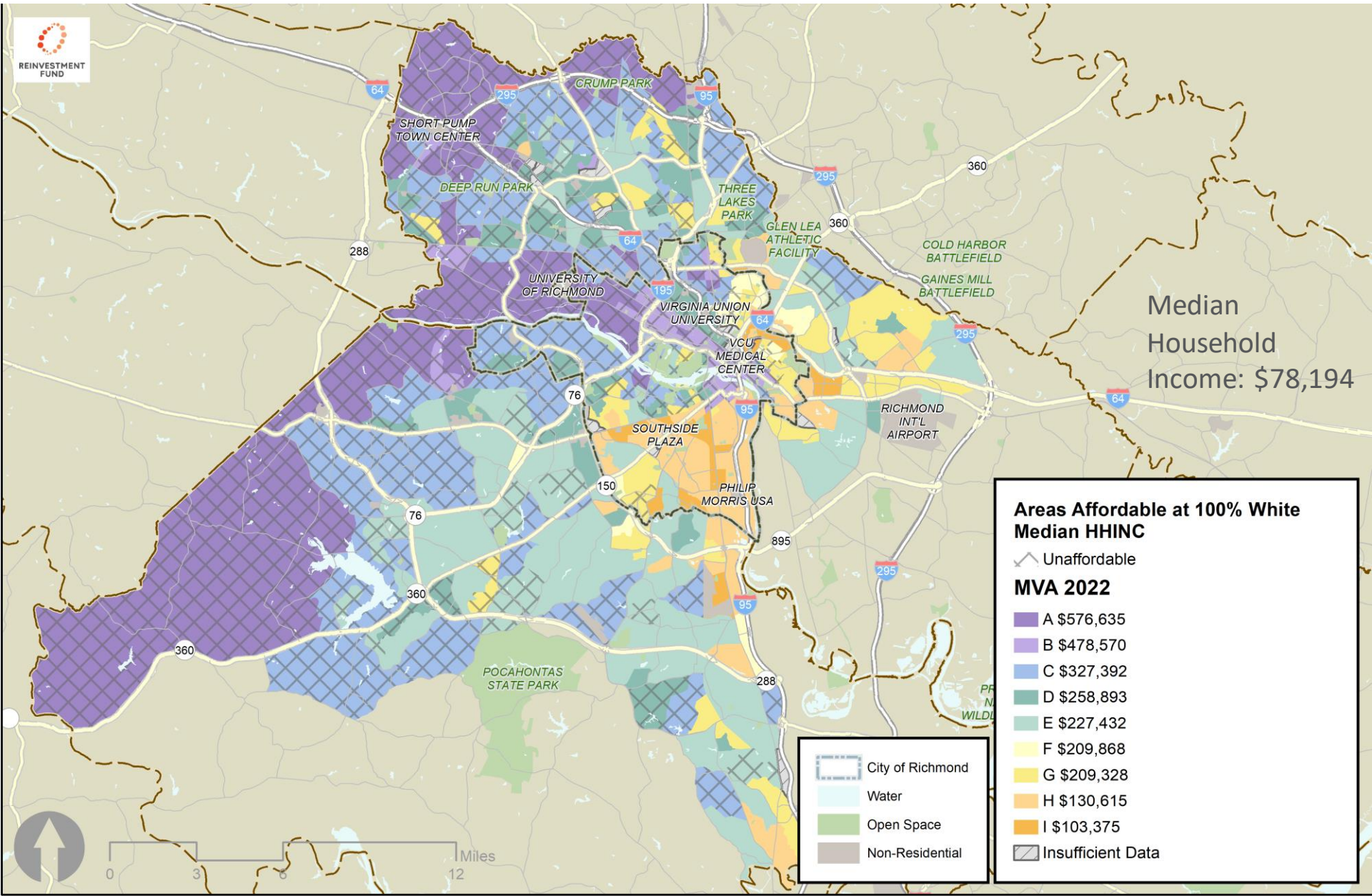
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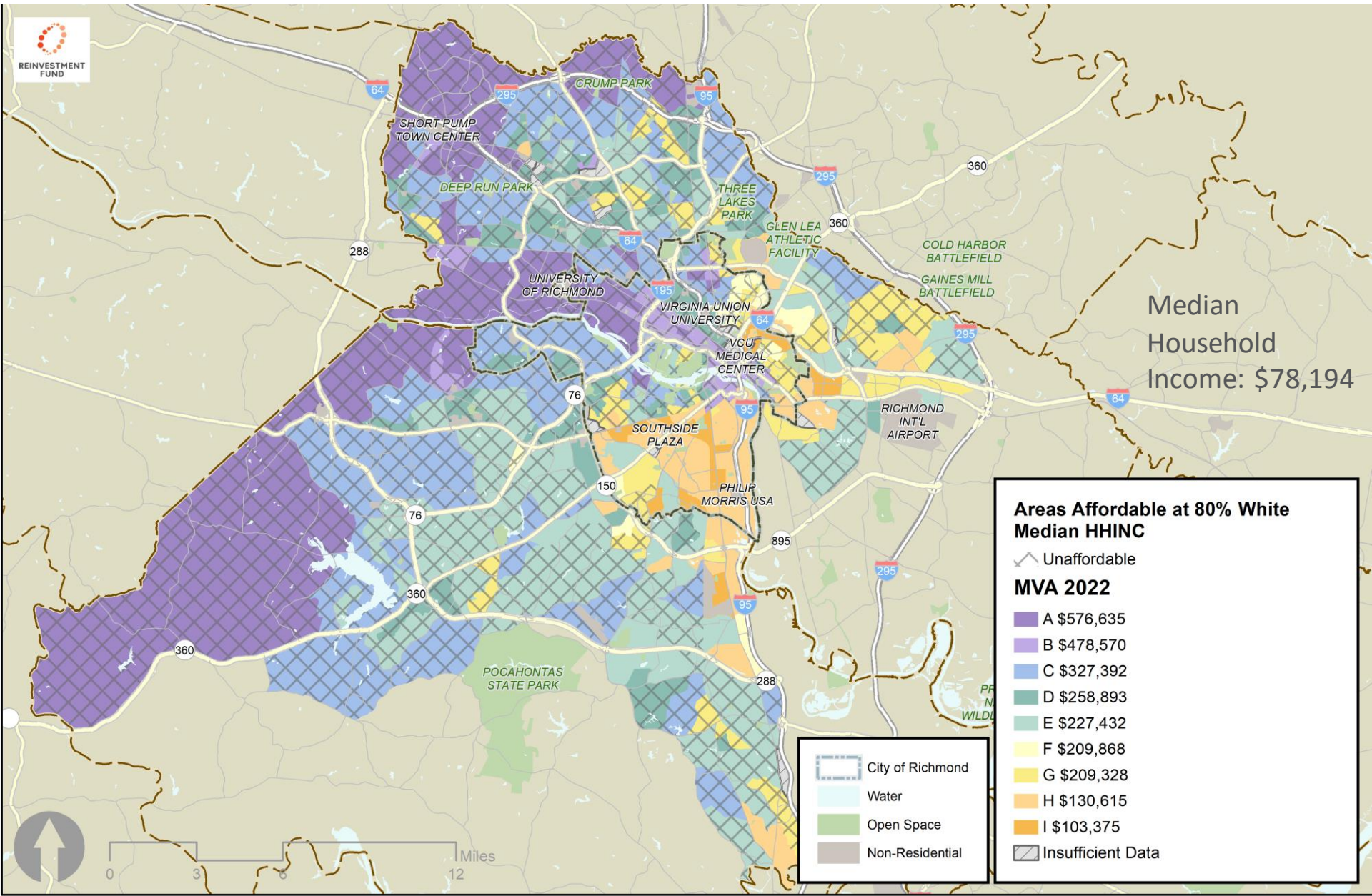
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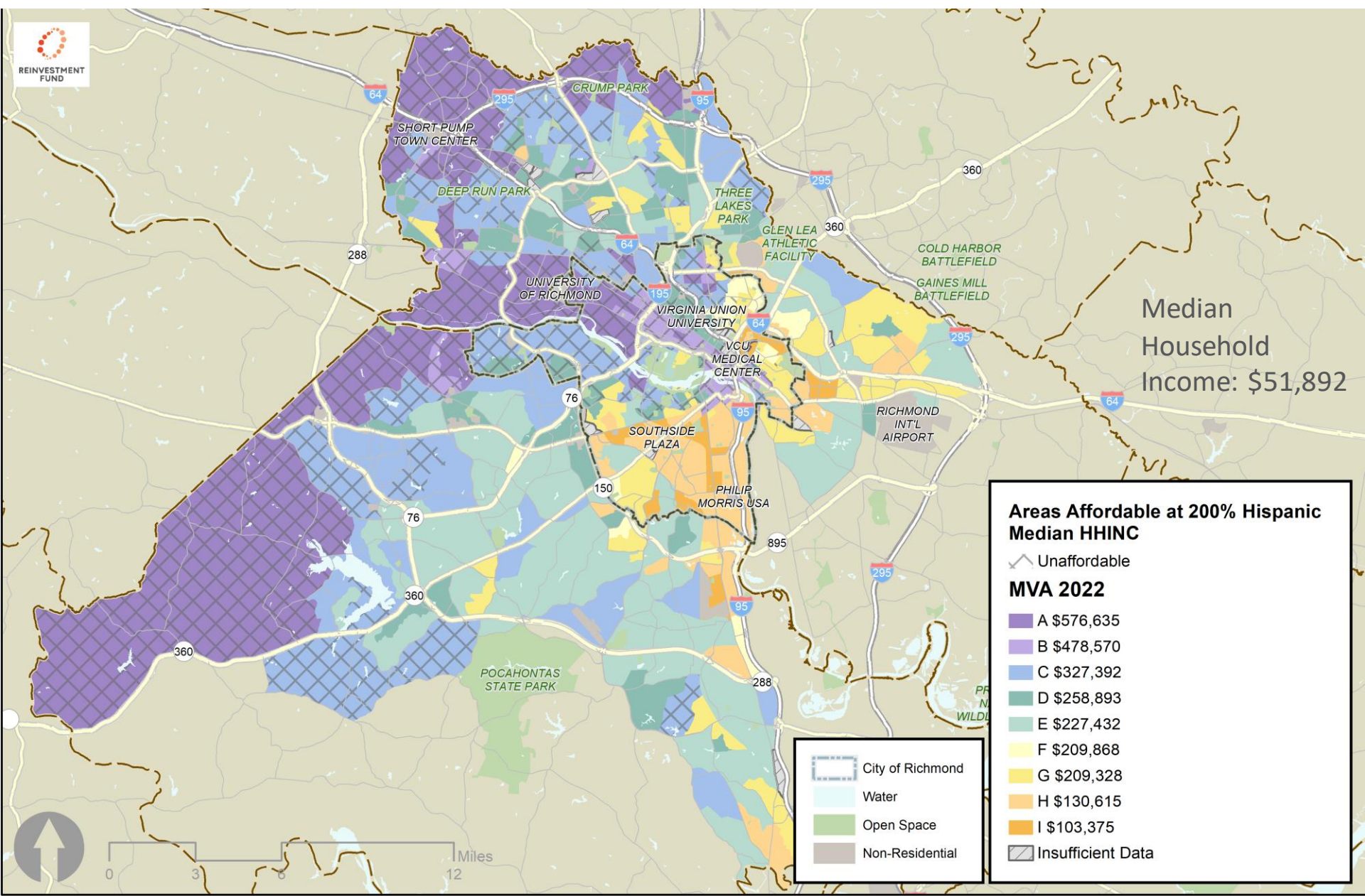
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Housing Affordability: 200% Median Household Income for Hispanic Households



Median Household Income: \$51,892

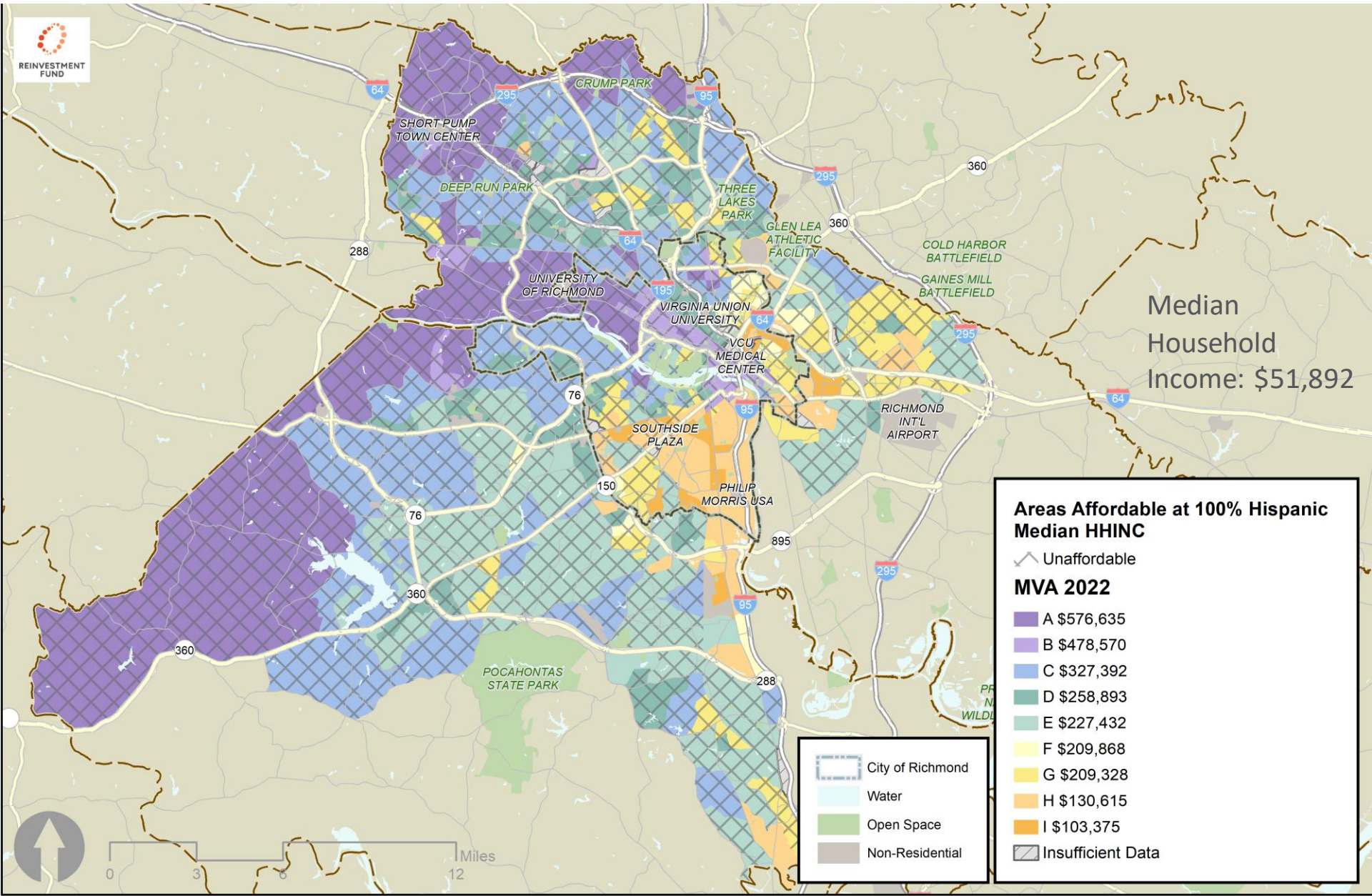
Areas Affordable at 200% Hispanic Median HHINC

- Unaffordable
- MVA 2022**
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Housing Affordability: 100% Median Household Income for Hispanic Households



Median Household Income: \$51,892

Areas Affordable at 100% Hispanic Median HHINC

Unaffordable

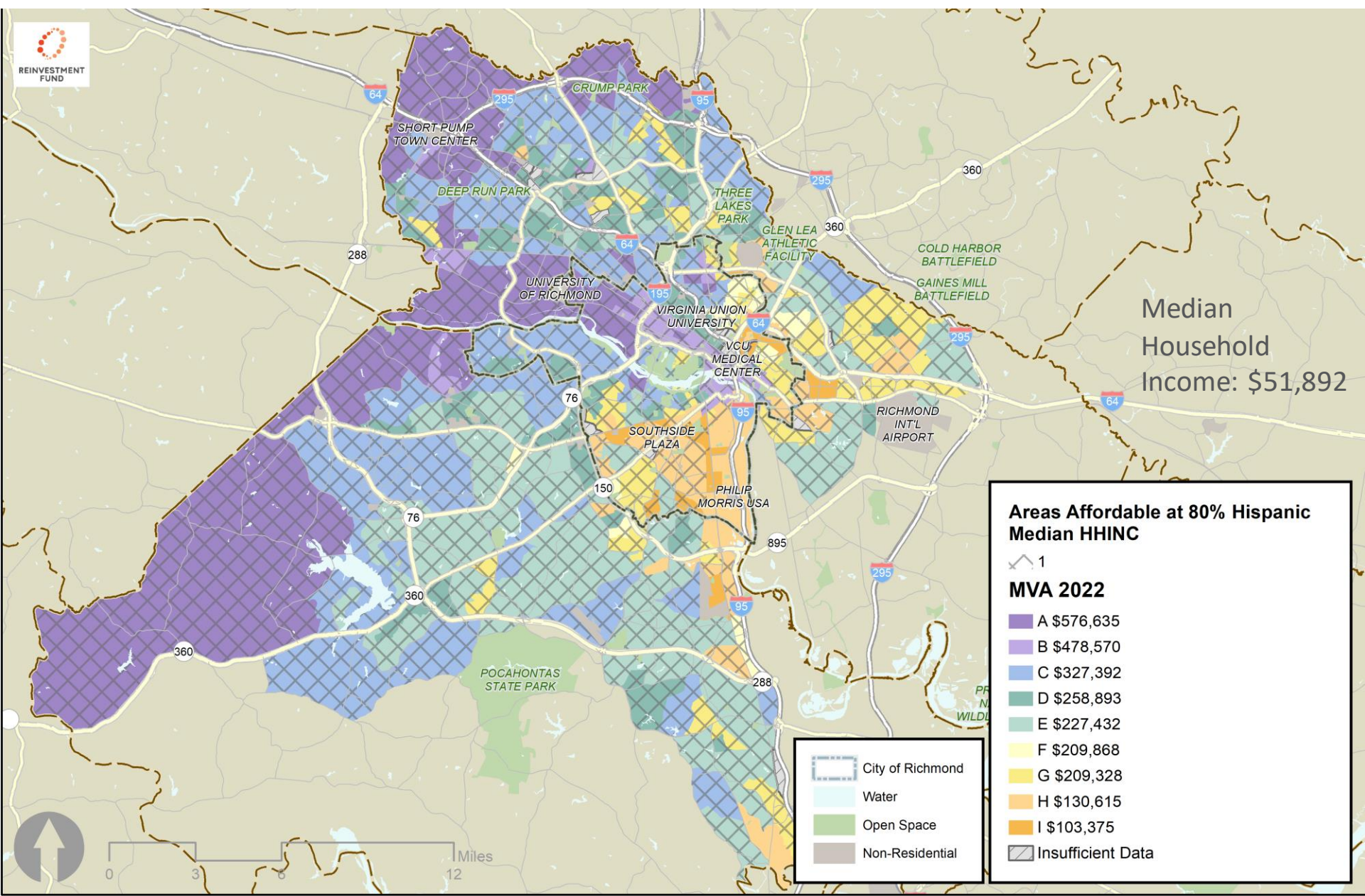
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Housing Affordability: 80% Median Household Income for Hispanic Households



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Areas Affordable at 80% Hispanic Median HHINC

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Grid Pattern	Insufficient Data

City of Richmond
Water
Open Space
Non-Residential





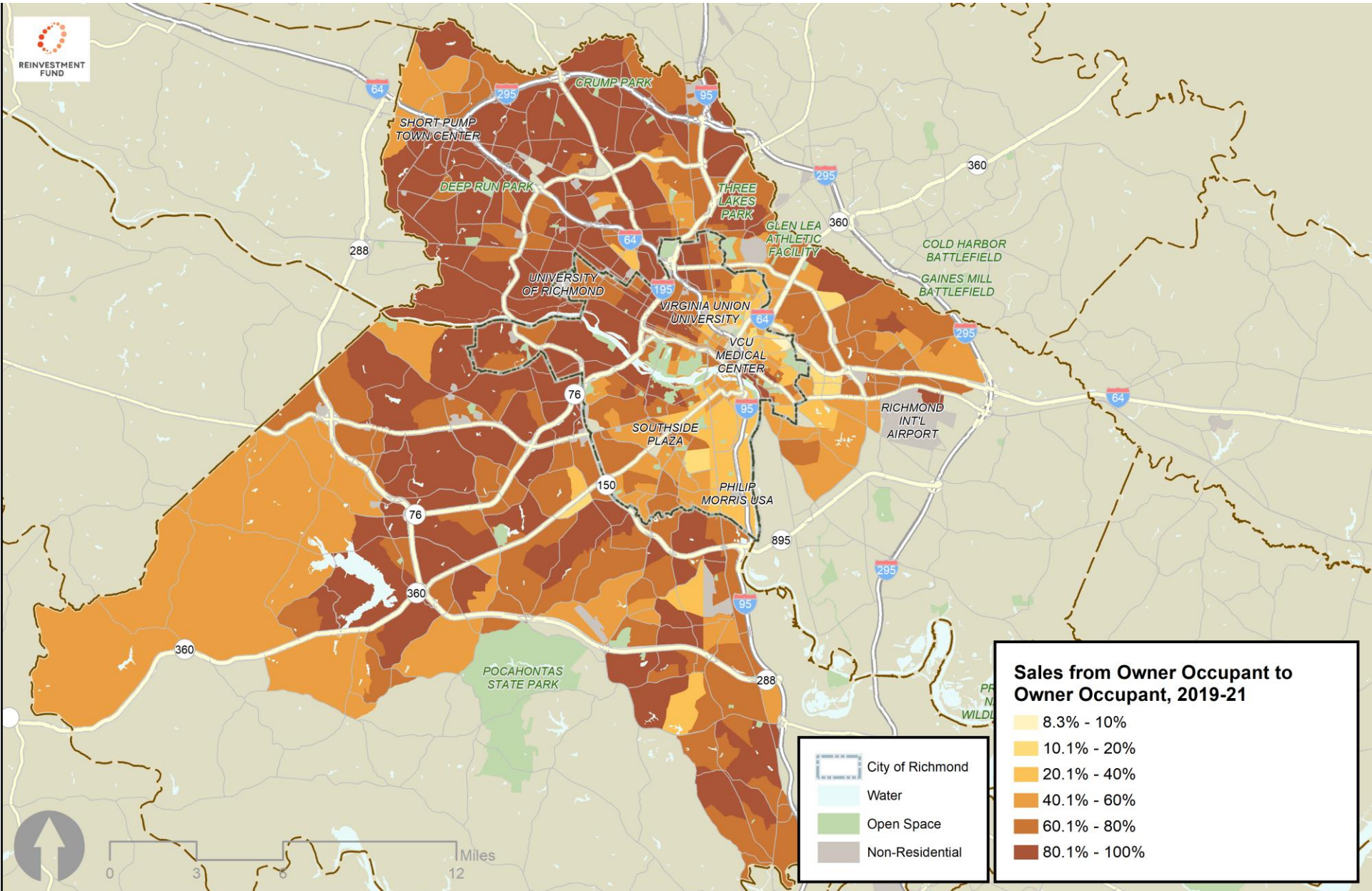
REINVESTMENT
FUND

Investor Transactions

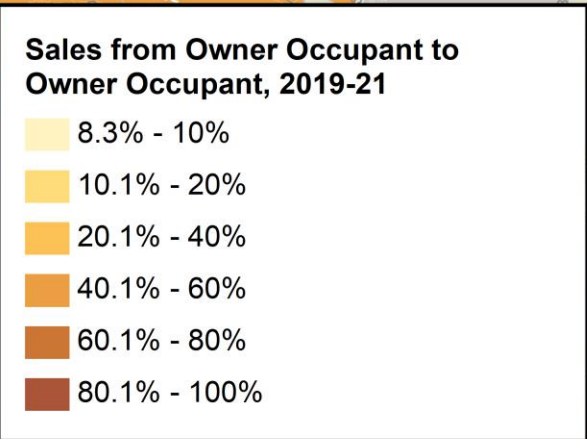
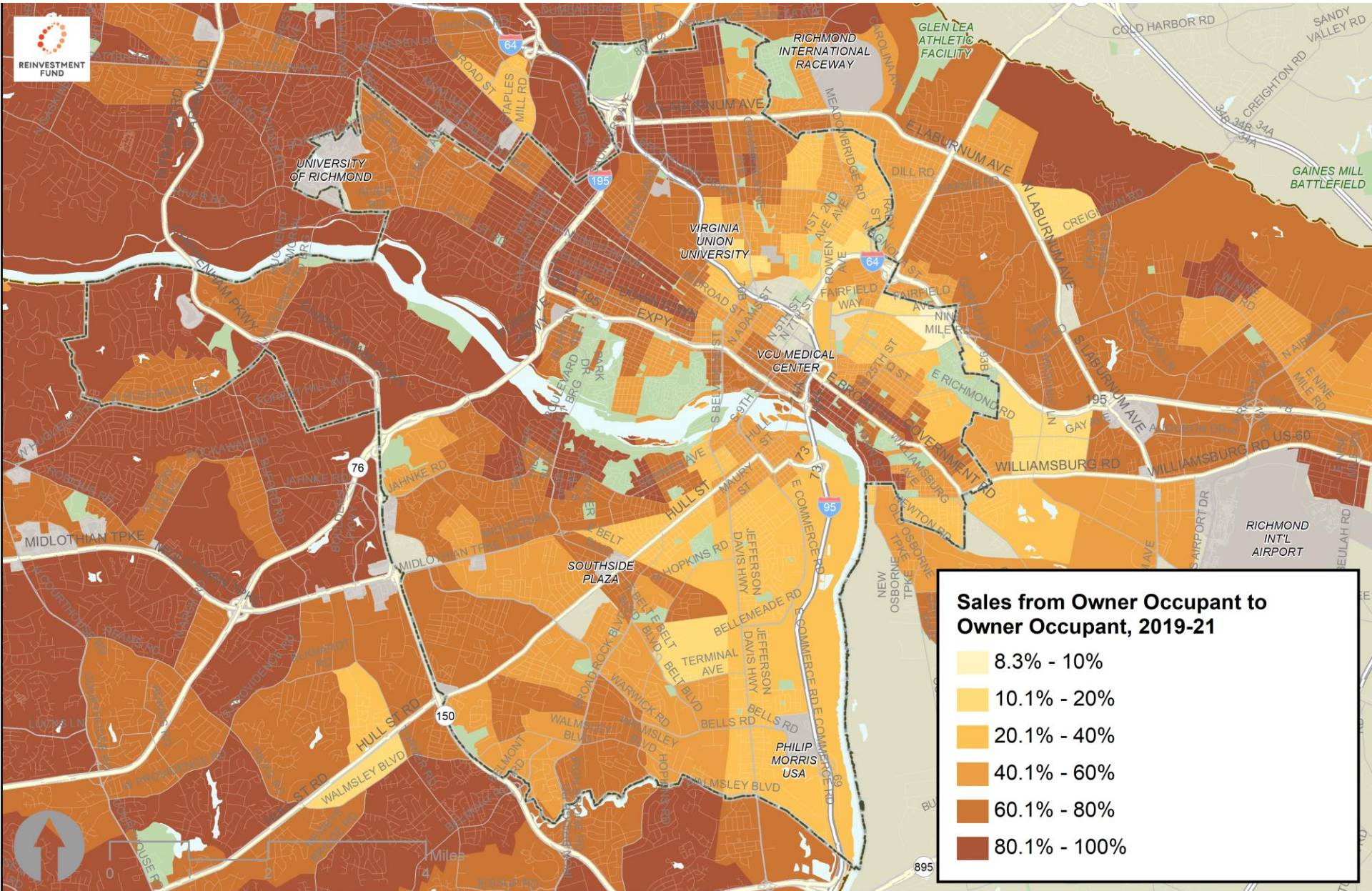
What do Investor Sales Look Like Across Market Types?

2022 MVA Category	Share of Sales from Owner Occupant to Owner Occupant	Share of Sales from Owner Occupant to Investor	Share of Sales from Investor to Owner Occupant	Share of Sales from Investor to Investor
A	82%	3%	13%	2%
B	78%	6%	12%	4%
C	82%	3%	14%	1%
D	78%	5%	13%	4%
E	76%	5%	16%	3%
F	47%	13%	33%	8%
G	60%	8%	26%	6%
H	51%	18%	23%	8%
I	39%	25%	21%	14%

Homes Sold by Owner Occupants to Owner Occupants, 2019-2021

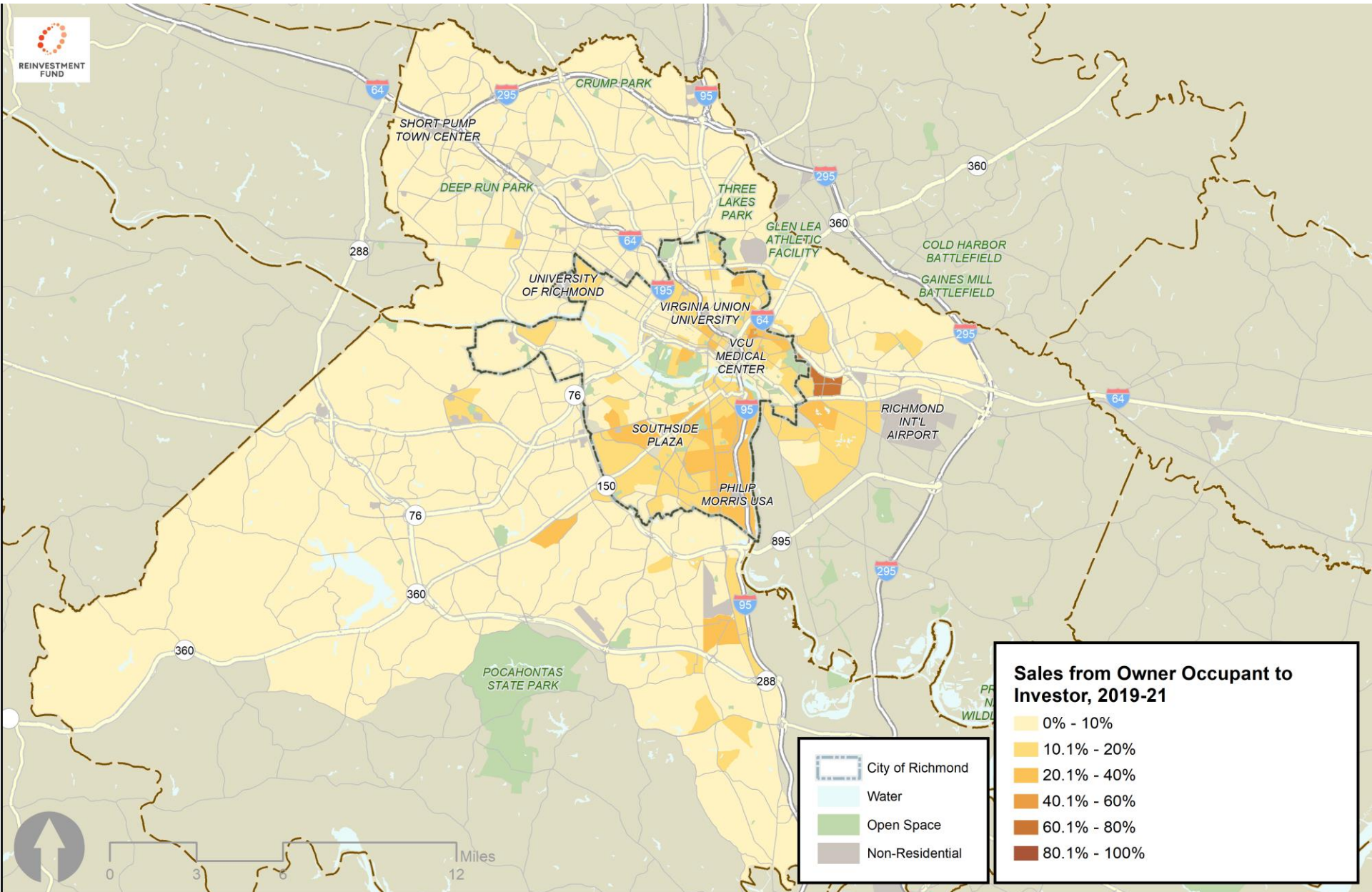


Homes Sold by Owner Occupants to Owner Occupants, 2019-2021

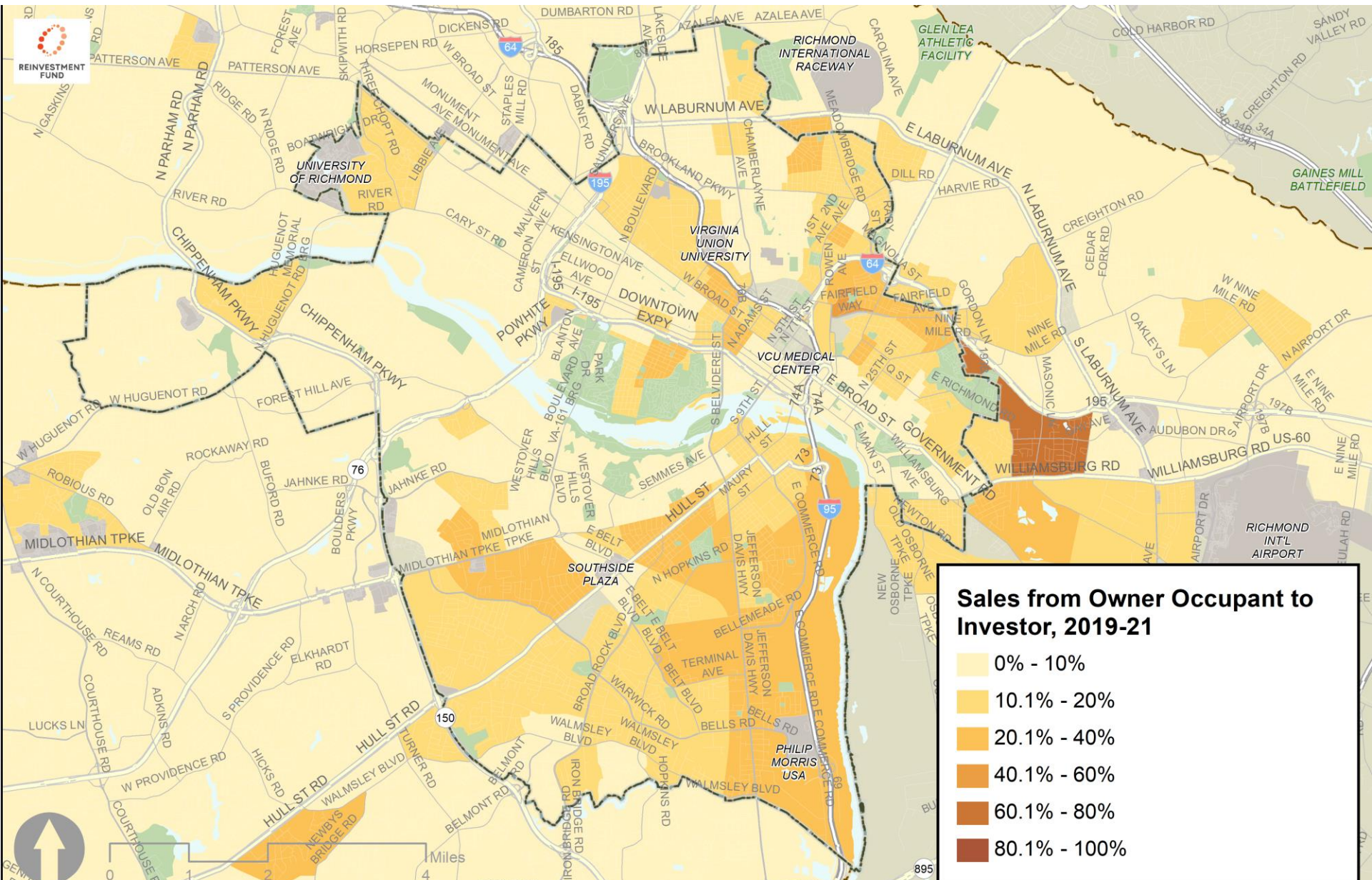


0 2 4 Miles

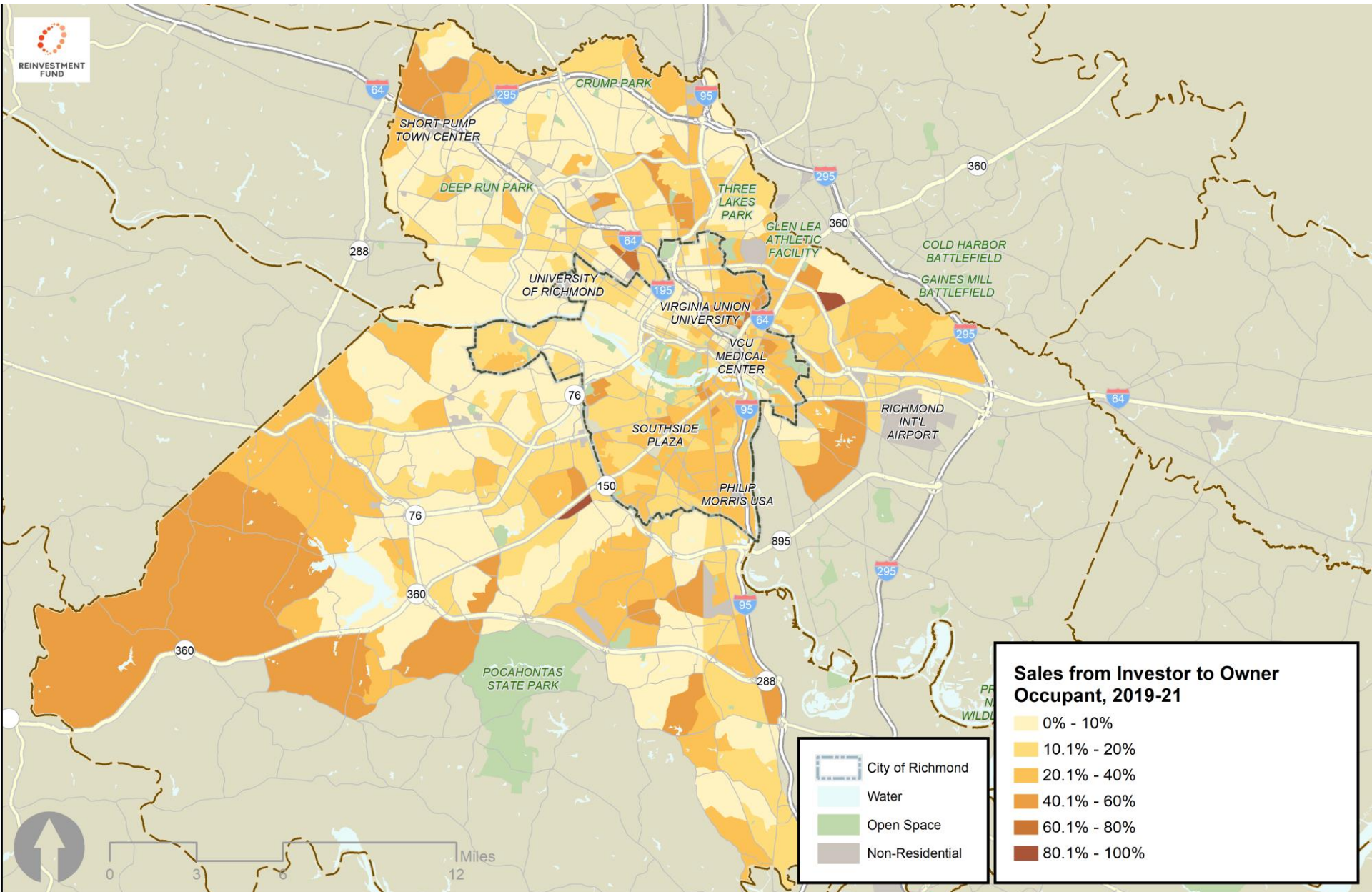
Homes Sold by Owner Occupants to Investors, 2019-2021



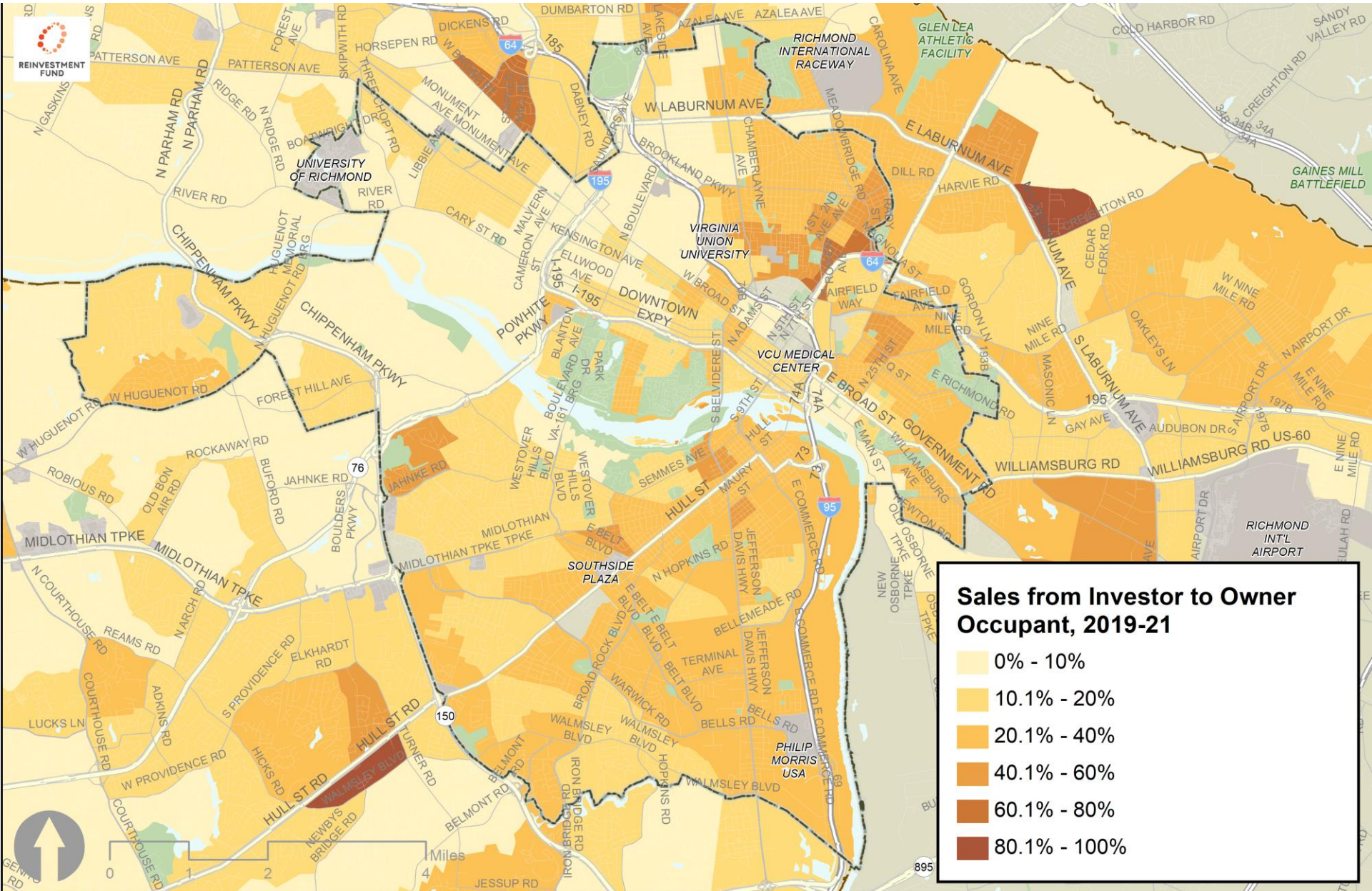
Homes Sold by Owner Occupants to Investors, 2019-2021



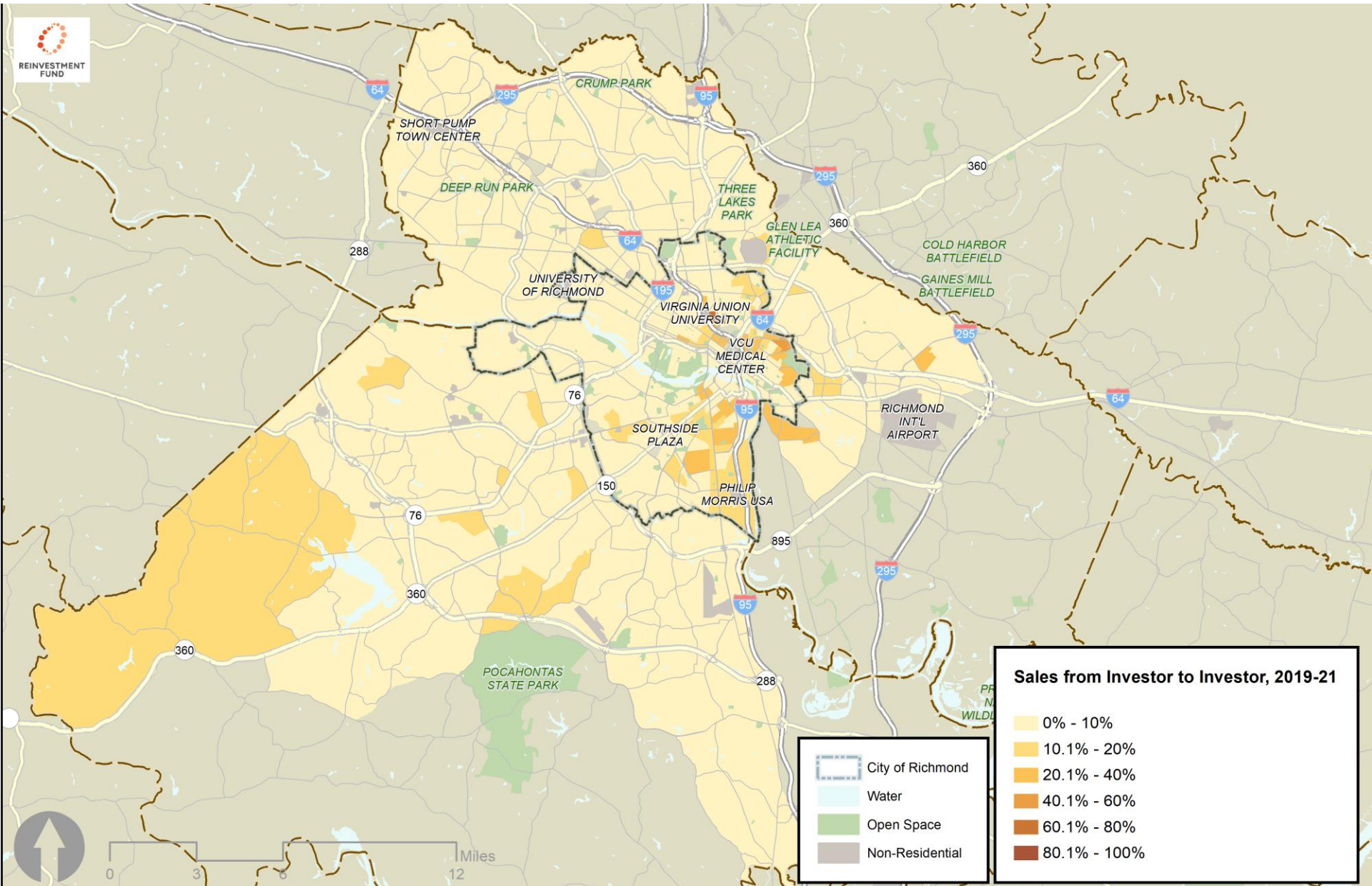
Homes Sold by Investors to Owner Occupants, 2019-2021



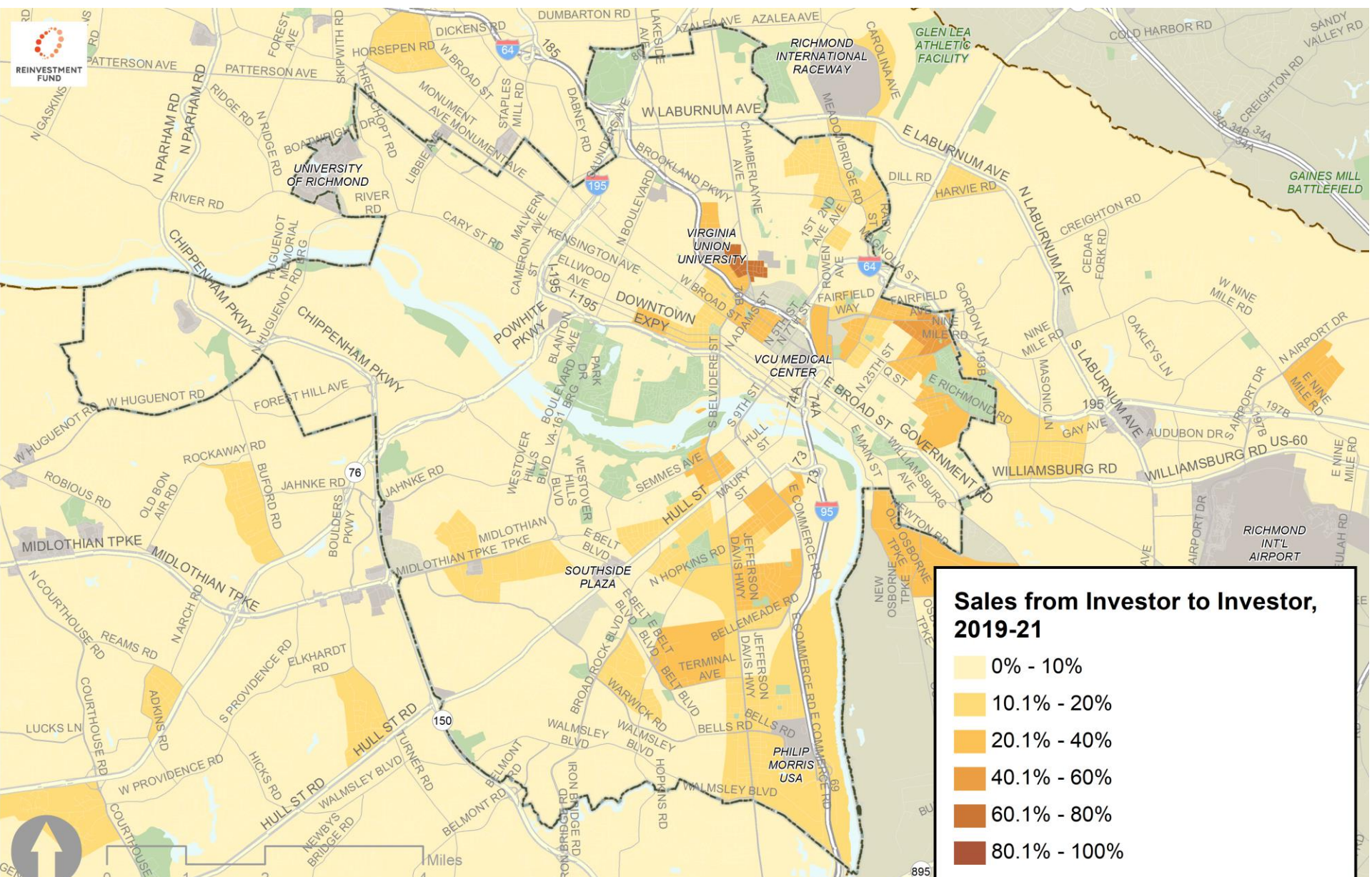
Homes Sold by Investors to Owner Occupants, 2019-2021



Homes Sold by Investors to Investors, 2019-2021



Homes Sold by Investors to Investors, 2019-2021





REINVESTMENT
FUND

Home Mortgage Lending

Access to Mortgage Credit as Barrier to Growth?

The table below shows mortgage outcomes from Home Mortgage Disclosure Application filings. The share of cash sales are estimated by comparing the number of originated loans with the number of residential transactions.

Mortgage Application Outcomes Vary Substantially Across MVA Market Types

*Home Purchase Application Outcomes, 2019-20**

Applications per Households, 2019-20

Estimated Sales with Mortgages, 2019-20

	Originated Loans		Withdrawn Apps		Total Apps	Total Households	App per 100 Owner Occupied Households	Originated Loans	Total Sales, 19-20	Estimated Mortgage Sales
		Rejected Apps								
Purple Markets	6,469	353	1,182	8,004	58,448	14	6,469	8,388	77%	
	81%	4%	15%	100%						
Blue Markets	7,262	398	1,113	8,773	51,347	17	7,262	9,833	74%	
	83%	5%	13%	100%						
Green Markets	9,606	804	15,50	11,960	92,655	13	9,606	13,194	73%	
	80%	7%	13%	100%						
Yellow Markets	2,242	199	417	2,858	22,315	13	2,242	3,666	61%	
	78%	7%	15%	100%						
Orange Markets	925	105	150	1,180	19,857	6	925	2,103	44%	
	78%	9%	13%	100%						
All Markets	26,504	1,859	4,412	32,775	244,622	13	26,504	37,184	71%	
	81%	6%	13%	100%						

*Only Includes first lien, home purchase applications for owner-occupied single-family homes

Access to Mortgage Credit as Barrier to Growth?

Home Purchase Application Outcomes for White Applicants, 2019-20*

	Originated Loans	Rejected Apps	Withdrawn Apps	Total Apps
Purple Markets	4,337	185	660	5,182
	84%	4%	13%	100%
Blue Markets	4,911	185	641	5,737
	86%	3%	11%	100%
Green Markets	5,665	314	776	6,755
	84%	5%	11%	100%
Yellow Markets	1,159	75	215	1,449
	80%	5%	15%	100%
Orange Markets	441	21	59	521
	85%	4%	11%	100%
All Markets	16,513	780	2,351	19,644
	84%	4%	12%	100%

Home Purchase Application Outcomes for Black Applicants, 2019-20*

	Originated Loans	Rejected Apps	Withdrawn Apps	Total Apps
Purple Markets	361	47	83	491
	74%	10%	17%	100%
Blue Markets	845	103	160	1,108
	76%	9%	14%	100%
Green Markets	2,048	300	425	2,773
	74%	11%	15%	100%
Yellow Markets	624	80	122	826
	76%	10%	15%	100%
Orange Markets	299	59	52	410
	73%	14%	13%	100%
All Markets	4,177	589	842	5,608
	74%	11%	15%	100%

Home Purchase Application Outcomes for Applicants Where Race Not Reported, 2019-20*

	Originated Loans	Rejected Apps	Withdrawn Apps	Total Applications
Purple	861	54	209	1,124
Blue	970	67	199	1,236
Green	1,215	127	223	1,565
Yellow	296	35	57	388
Orange	144	19	32	195
All Markets	3,486	302	720	4,508

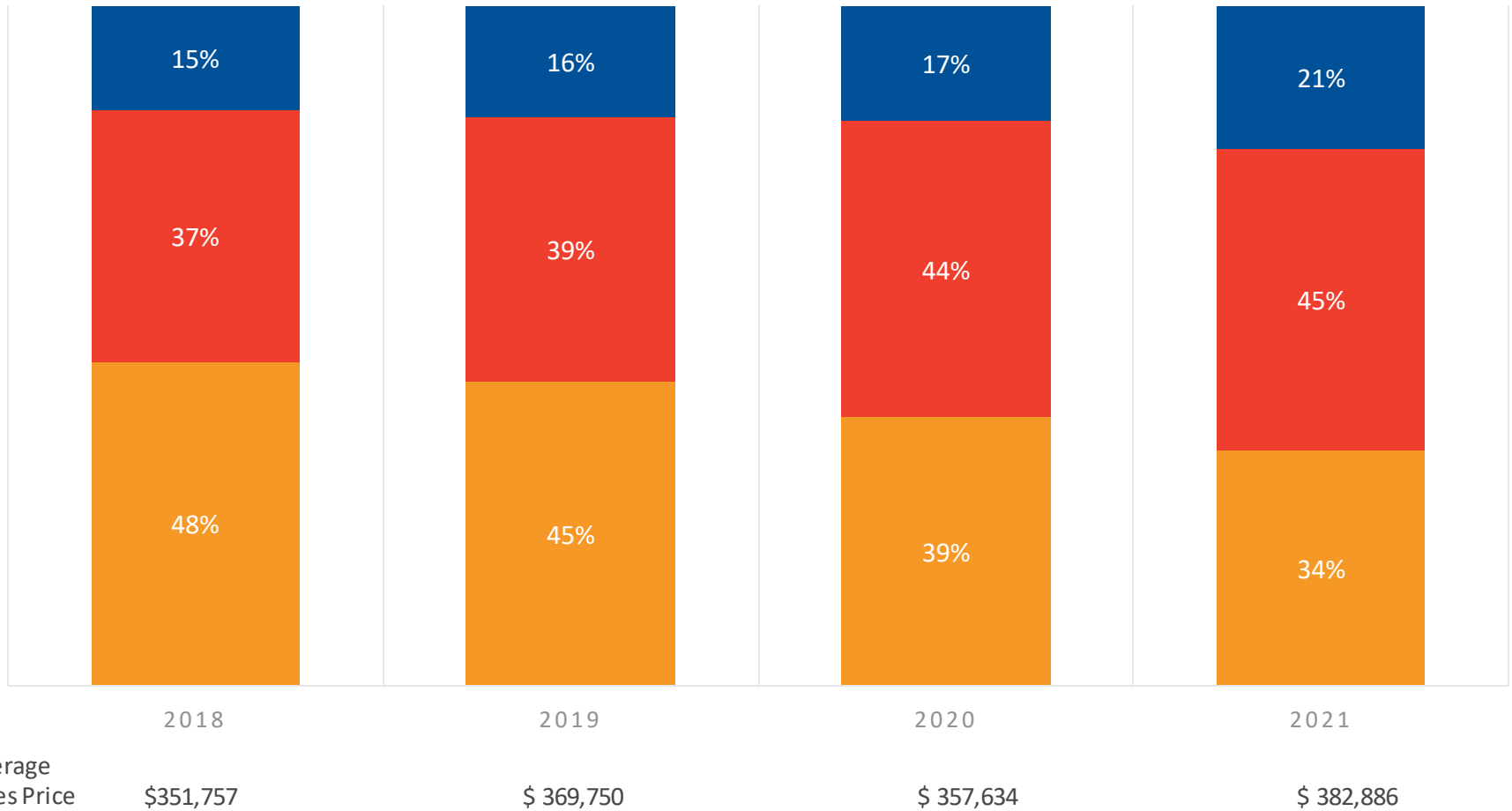
Home Purchase Application Outcomes for Applicants (all other races), 2019-20*

	Originated Loans	Rejected Apps	Withdrawn Apps	Total Applications
Purple	947	68	236	1,251
Blue	563	43	118	724
Green	641	62	120	823
Yellow	136	9	18	163
Orange	41	6	7	54
All Markets	2,328	188	499	3,015

*Only Includes first lien, home purchase applications for owner-occupied single-family homes

Rising Average Sales Price, Shrinking Supply of Affordable Homes

■ Less than \$250 ■ \$250 to \$450 ■ Greater than \$450





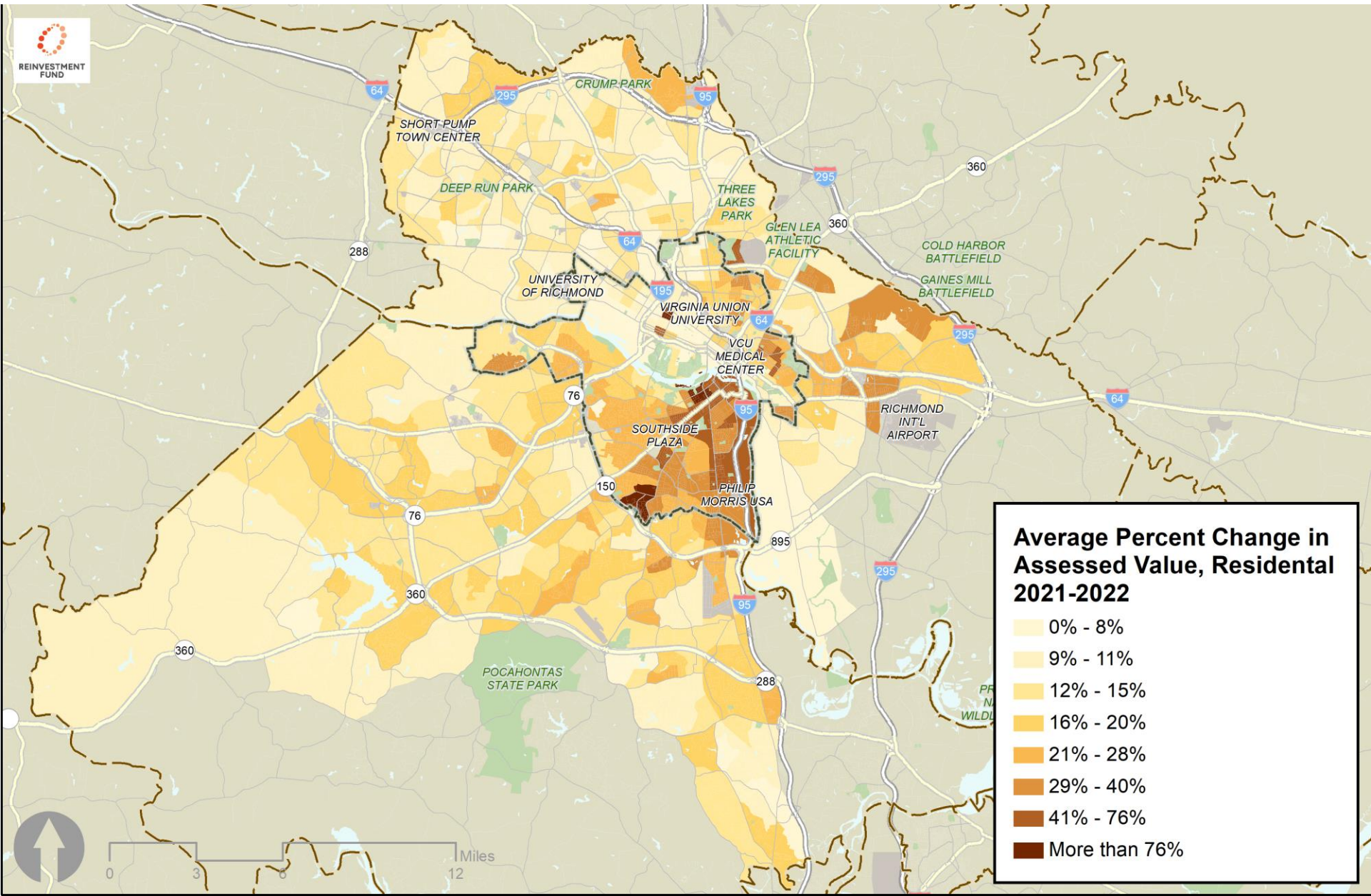
REINVESTMENT
FUND

Greater Richmond Property Assessments

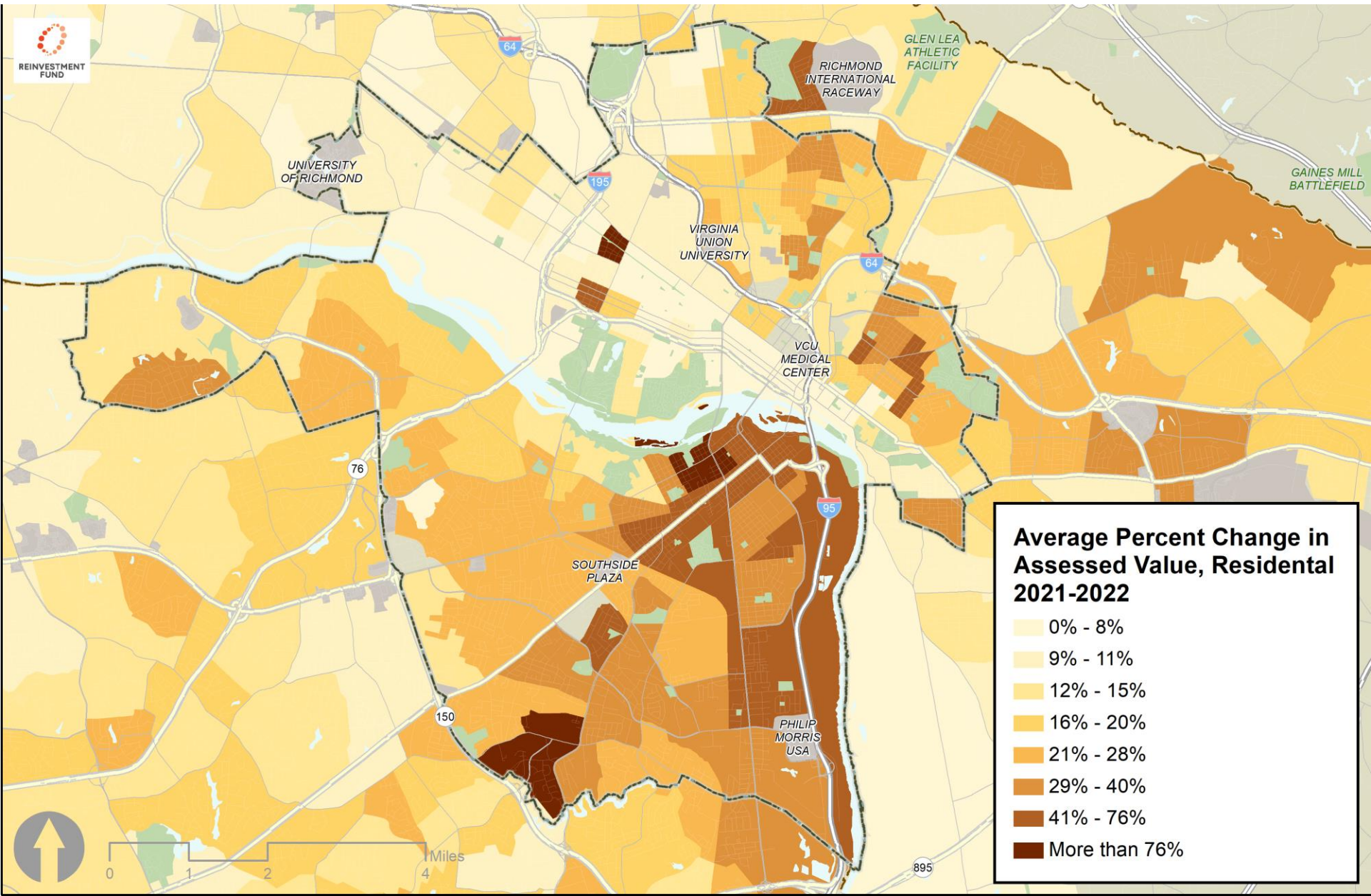
Which Market Types in Greater Richmond Are Experiencing Increases in Assessed Values?

2022 MVA Category	Average Median Sales Price 2015-16	Average Median Sales Price 2019-21	Percent Change in Median Sales Price 2015/16-2019/20	Average Percent Change in Assessments 2021/2022
A	\$ 448,307	\$ 576,635	28.6%	6.6%
B	\$ 350,946	\$ 478,570	36.4%	11.3%
C	\$ 253,726	\$ 327,392	29.0%	12.7%
D	\$ 186,877	\$ 258,893	38.5%	14.0%
E	\$ 168,471	\$ 227,432	35.0%	18.2%
F	\$ 112,469	\$ 209,868	86.6%	16.9%
G	\$ 130,281	\$ 209,328	60.7%	18.9%
H	\$ 79,647	\$ 130,615	64.0%	29.4%
I	\$ 58,813	\$ 103,375	75.8%	26.5%

Changes in Tax Assessments, 2020-2021



Tax Assessment Average Percent Change 2021-2022



Population Changes Across Market Types, 2010 to 2020																		
2022 MVA Category	Total Pop		%	Non-Hispanic White		%	Non-Hispanic Black		%	Non-Hispanic Asian		%	Hispanic/Latino		%	All other races		
	2010	2020		2010	2020		2010	2020		2010	2020		2010	2020		2010	2020	2010
A	94,359	125,774	33%	77,170	89,320	16%	4,994	8,426	69%	8,289	17,758	114%	2,152	4,588	113%	1,754	5,681	224%
B	49,853	61,878	24%	32,761	38,340	17%	9,910	11,268	14%	3,498	4,841	38%	2,189	3,948	80%	1,495	3,481	133%
C	152,467	171,434	12%	117,298	120,696	3%	19,515	22,965	18%	7,269	9,215	27%	5,235	9,874	89%	3,150	8,683	176%
D	100,739	112,471	12%	52,180	52,962	1%	31,084	33,020	6%	5,092	6,734	32%	9,294	13,379	44%	3,089	6,376	106%
E	162,182	172,379	6%	91,331	82,723	-9%	49,888	54,233	9%	4,973	5,650	14%	11,543	20,577	78%	4,447	9,196	107%
F	16,991	17,358	2%	1,979	3,428	73%	13,601	11,186	-18%	158	240	52%	845	1,668	97%	408	837	105%
G	69,784	73,458	5%	17,693	18,505	5%	44,545	43,509	-2%	835	1,297	55%	4,949	6,835	38%	1,762	3,313	88%
H	51,644	53,563	4%	11,985	10,267	-14%	31,065	28,317	-9%	728	551	-24%	6,536	11,959	83%	1,330	2,468	86%
I	19,915	20,112	1%	2,132	1,842	-14%	15,828	14,816	-6%	131	138	6%	1,417	2,608	84%	407	708	74%

2022 MVA

Average Characteristics for Richmond Area Market Types

	Number of Block Groups*	Median Sales Price 2019-2021	Sales Price Variance, 2019-2021	Percent Bank Sales, 2019-2021	Owner Occupancy, 2015-19	Percent Subsidized Rental, 2021	Percent Vacant Residential, 2021	Housing Units per Acre, 2015-19	Percent Residential Parcels Built 2008-up	Percent Residential Parcels with Permits 2019-21
A	52	\$544,088	0.62	2%	86%	1%	1%	3.7	12%	17%
B	28	\$419,357	1.02	3%	29%	20%	2%	21.9	2%	9%
C	102	\$324,463	0.41	4%	82%	2%	1%	8.7	5%	10%
D	64	\$255,447	0.77	6%	36%	6%	1%	8.9	5%	8%
E	108	\$229,717	0.37	7%	80%	5%	1%	2.0	4%	6%
F	24	\$210,639	0.45	20%	63%	7%	6%	6.3	4%	14%
G	43	\$206,355	0.83	11%	44%	96%	3%	5.7	5%	10%
H	40	\$129,656	0.78	12%	42%	9%	3%	6.0	2%	5%
I	14	\$103,375	1.07	10%	23%	95%	4%	5.9	4%	6%

*Totals include block groups that were split to better categorize the market