



Montgomery Planning | Functional Planning and Policy Division

Schools Technical Advisory Team

Meeting #2

November 12, 2019



Welcome!

Introductions

Please share...

- Your name
- Your organization/employer, if applicable
- The name of your high school and hometown

Meeting Agenda

- I. **Welcome** | *15 minutes*
 - a. Introductions
 - b. Overview of Agenda
 - c. Discussion Ground Rules
 - d. Questions about Microsoft Teams

- II. **Circle Back – Meeting 1** | *30 minutes*
 - a. Traffic Mitigation
 - b. Explanation of the Queue
 - c. Update: Growth Management in Other Jurisdictions
 - d. Housing Need → School Need
 - e. Indexed Growth: Population vs. Enrollment
 - f. Shares of Students by Housing Type

- III. **Alternative Student Generation Rates** | *70 minutes*
 - a. Review of SGR Calculation
 - b. Current Rates and Uses
 - c. Census-based Rates
 - d. Location-based Rates
 - e. Other Rates

- IV. **Preview of STAT Meeting #3** | *5 minutes*

STAT Participant Ground Rules

1. Lean in. Lean out.
2. Listen to understand. Suspend your beliefs to hear someone else's experience.
3. Speak for yourself, not a group, and use "I" statements.
4. Disagree with people without being disagreeable.
 - It's okay to disagree. We are not aiming to agree. You do not have to persuade each other.
5. We have a lot to cover every meeting, therefore:
 - Try not to repeat things that others have said, simply indicate your agreement with another person's comments.
 - Stay on topic and be concise while still being a thoughtful, provocative and active participant.
- 6. You must have a microphone to talk.**

STAT Observer Ground Rules

1. To stay on track with such a large group we ask that you do not participate directly in the STAT conversation, but rather observe and take notes.
2. Preferably, please submit comments or questions on the comment cards.
 - We will respond to you sometime after tonight's meeting.
 - If applicable, we will share your comments with the STAT membership at the next meeting or share our responses to your questions.
3. Otherwise, feel free to catch us after the meeting to share your comments or ask your questions.

Navigating Microsoft Teams

Search or type a command

STAT 2020 > Meeting Agendas ...

Conversations Files Meeting Notes **New** +

Sartori, Jason set this channel to be automatically shown in the channels list. October 20, 2019

Sartori, Jason Sunday 10:36 PM
STAT 2020 Note that we've posted a draft agenda for our first STAT meeting on Tuesday evening. One thing to prepare for this meeting - be ready to summarize your initial perspectives on the Subdivision Staging Policy as it relates to schools in **60 seconds or less**. What are your biggest concerns about the future of the policy? What do you think works or doesn't work currently?

← Reply

Sartori, Jason Sunday 11:53 PM
We hope that you will be able to attend our STAT meeting on Tuesday in person. For those who will not be able to make it to Silver Spring for the meeting, you can participate remotely online using Microsoft Teams (additional information below). Note that we will also be recording the meeting and that the recording will be available instantly through Teams (we will subsequently post a version of the recording online as well).

See more

STAT Meeting #1
Tuesday, October 22, 2019 @ 7:00 PM

← Reply

Start a new conversation. Type @ to mention someone.

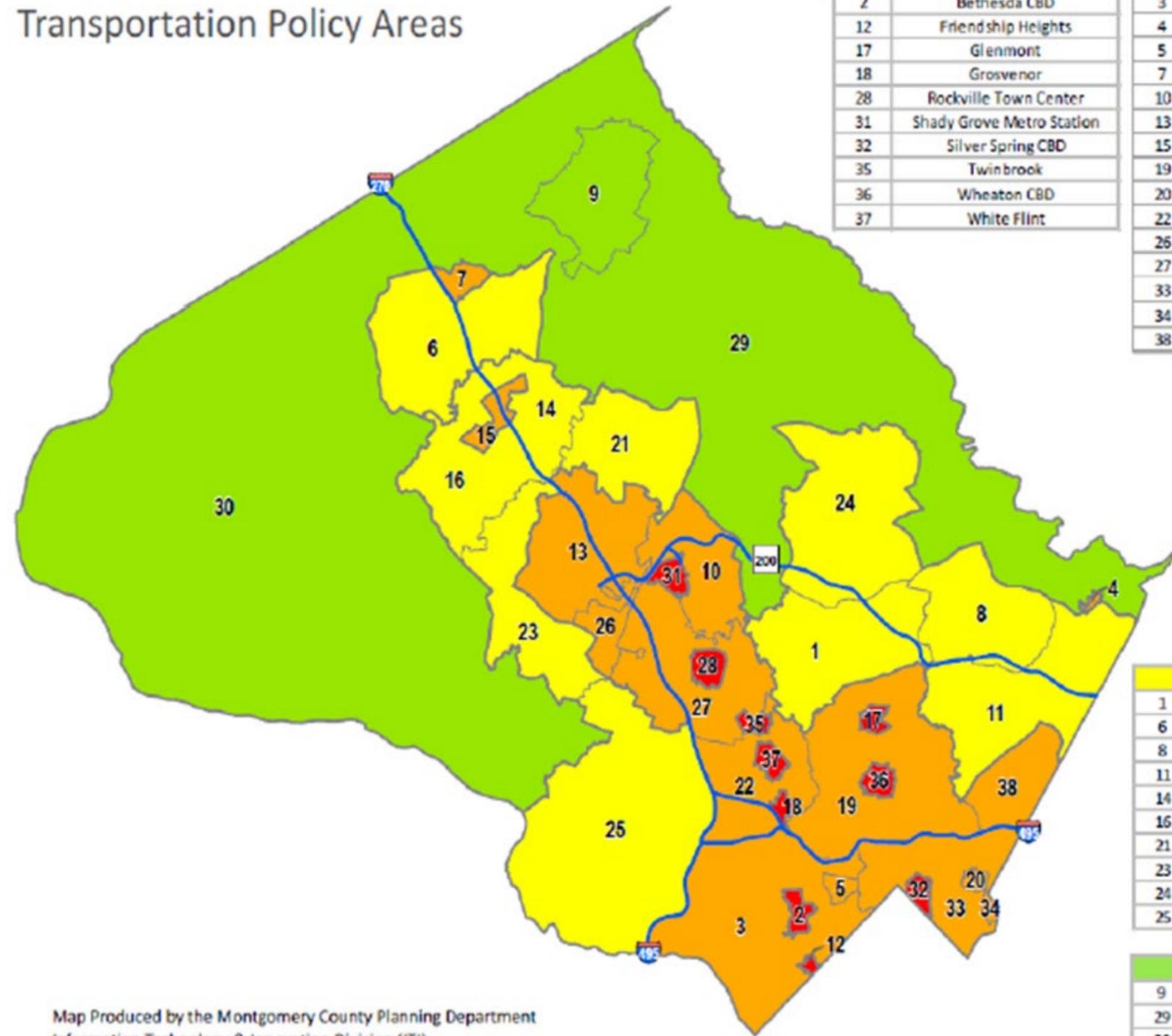
Apps
Join or create a team

Circle Back – Meeting 1

Traffic Mitigation

- Policy Area test with moratoria eliminated in 2003
- Reintroduced in 2007 with mitigation solutions

Montgomery County
Transportation Policy Areas



Red (MSPAs)	
2	Bethesda CBD
12	Friendship Heights
17	Glenmont
18	Grosvenor
28	Rockville Town Center
31	Shady Grove Metro Station
32	Silver Spring CBD
35	Twinbrook
36	Wheaton CBD
37	White Flint

Orange	
3	Bethesda/Chevy Chase
4	Burtonsville Town Center
5	Chevy Chase Lake Master Plan
7	Clarksburg Town Center
10	Derwood
13	Galthersburg City
15	Germantown Town Center
19	Kensington/Wheaton
20	Long Branch Sector Plan
22	North Bethesda
26	R&D Village
27	Rockville City
33	Silver Spring/Takoma Park
34	Takoma/Langley
38	White Oak

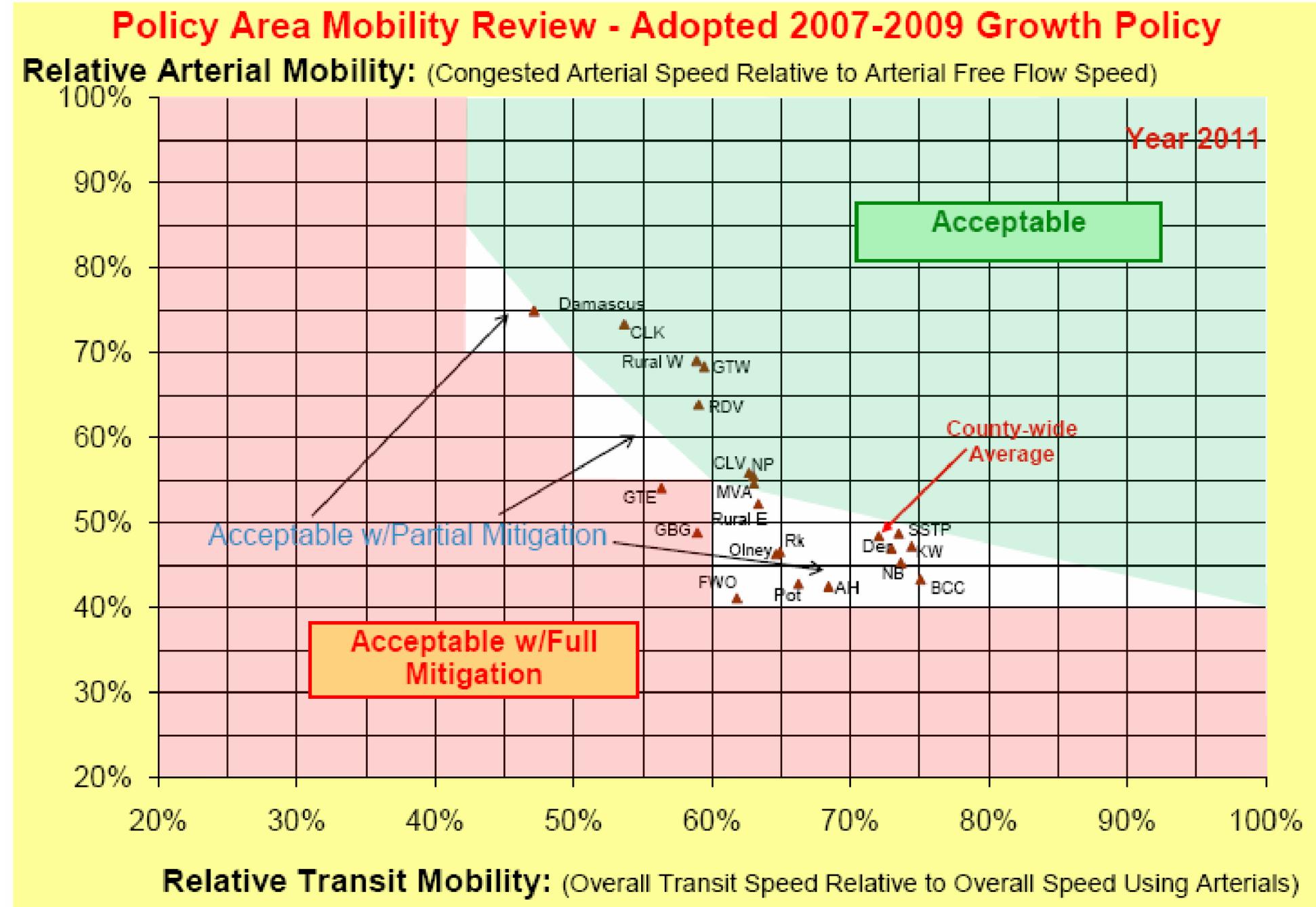
Yellow	
1	Aspen Hill
6	Clarksburg
8	Cloverly
11	Fairland/Colesville
14	Germantown East
16	Germantown West
21	Montgomery Village/Airpark
23	North Potomac
24	Olney
25	Potomac

Green	
9	Damascus
29	Rural East
30	Rural West

Map Produced by the Montgomery County Planning Department
Information Technology & Innovation Division (ITI)
November 9, 2016

Traffic Mitigation

- Trip-based mitigation was based on a combination of the policy area's arterial congestion and transit mobility levels
- Policy areas in the:
 - pink required that the applicant mitigate 100% of the trips generated
 - white triangles required mitigation of a portion of trips generated
 - green did not require any mitigation



Traffic Mitigation

- Mitigation options included:
 - establishing a trip reduction program under a binding Trip Mitigation Agreement
 - providing non-auto facilities, such as bus shelters, segments of bikeways or sidewalks, and other specified means to enhance walking, biking, and transit ridership
 - building or widening master-planned road segments in the policy area
 - buying one or more full-size, hybrid-electric Ride On buses and operating them for at least 12 years (each bus mitigates 30 trips)

Traffic Mitigation

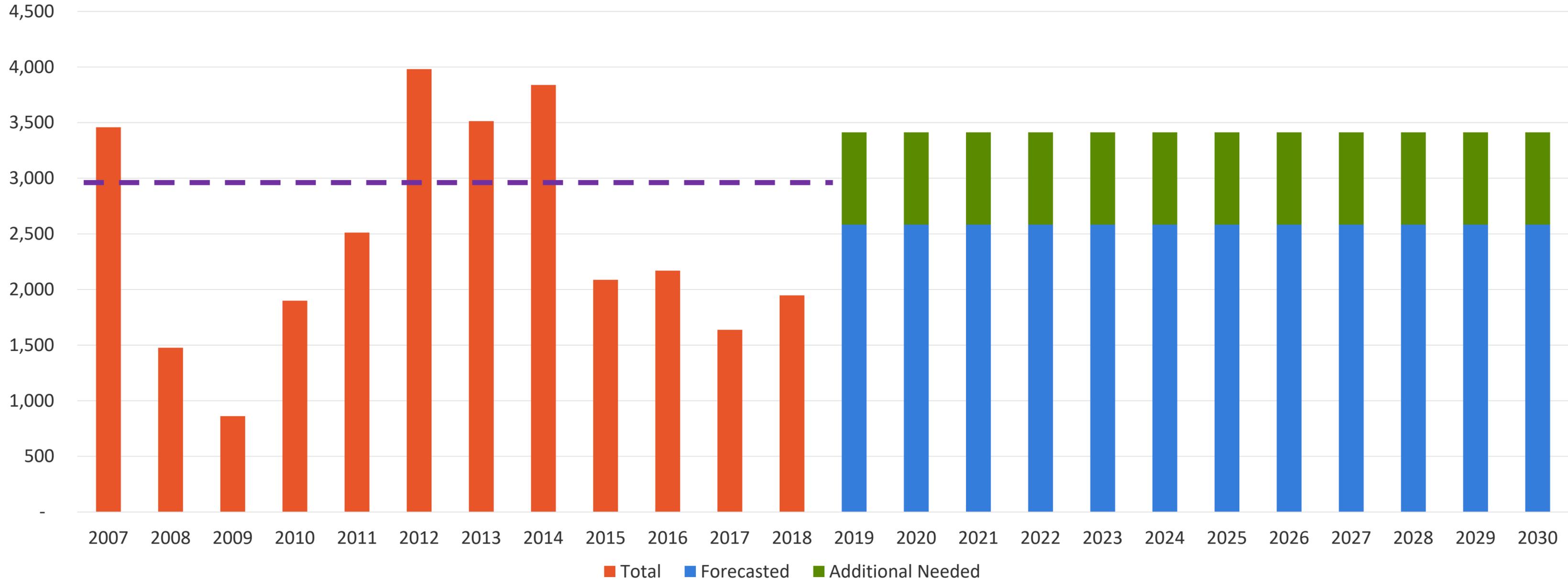
- In 2012, the policy area test was revised to be fee-based:
 - If certain traffic conditions existed, the applicant would pay an additional 25% of the transportation impact tax
 - If certain transit conditions existed, the applicant would pay an additional 25% of the transportation impact tax
- This feature of the policy, which was similar to the school facility payments, was eliminated in 2016, with the fees built directly into the transportation impact tax

Update: Growth Management in Other Jurisdictions

- Loudon County
 - Overflow schools to relieve overcrowding in schools
 - School proffer range
 - \$6,401.67 - \$29,781.67 per unit depending on unit type
- Arlington County
 - the only Northern Virginia jurisdiction allowed to have a mandatory fee called a “linkage fee”
 - Supports affordable housing
- By the next meeting, we will look closer at school construction costs for each jurisdiction we studied.

Translating Housing Need to School Capacity Need

Housing Units Permitted, Forecasted, and Additional Needed



Source: Census Bureau (data includes the municipalities of Rockville and Gaithersburg)

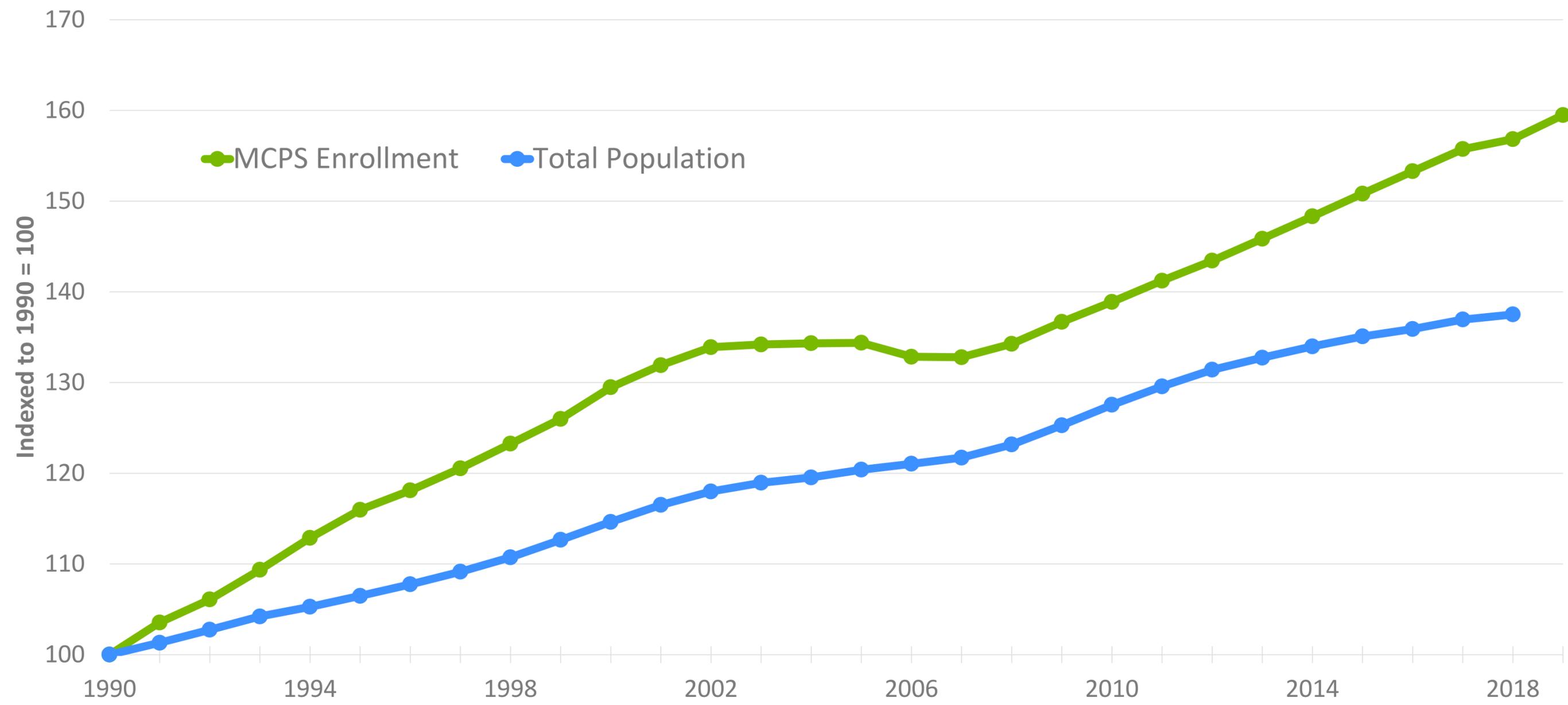
Translating Housing Need to School Capacity Need

- 37,543 additional housing units through 2030
- Two rough estimate impact calculations:
 1. Recent Countywide Unit Shares/Countywide SGRs
 2. Recent Cluster Unit Shares/Regional SGRs

Methodology	ES Estimate	MS Estimate	HS Estimate
Countywide Splits	5,291	2,507	3,328
Regional Splits	5,122	2,428	3,186
Average	5,207	2,468	3,257
Schools	7 schools	2 schools	1+ school

Indexed Growth: Population vs. Enrollment

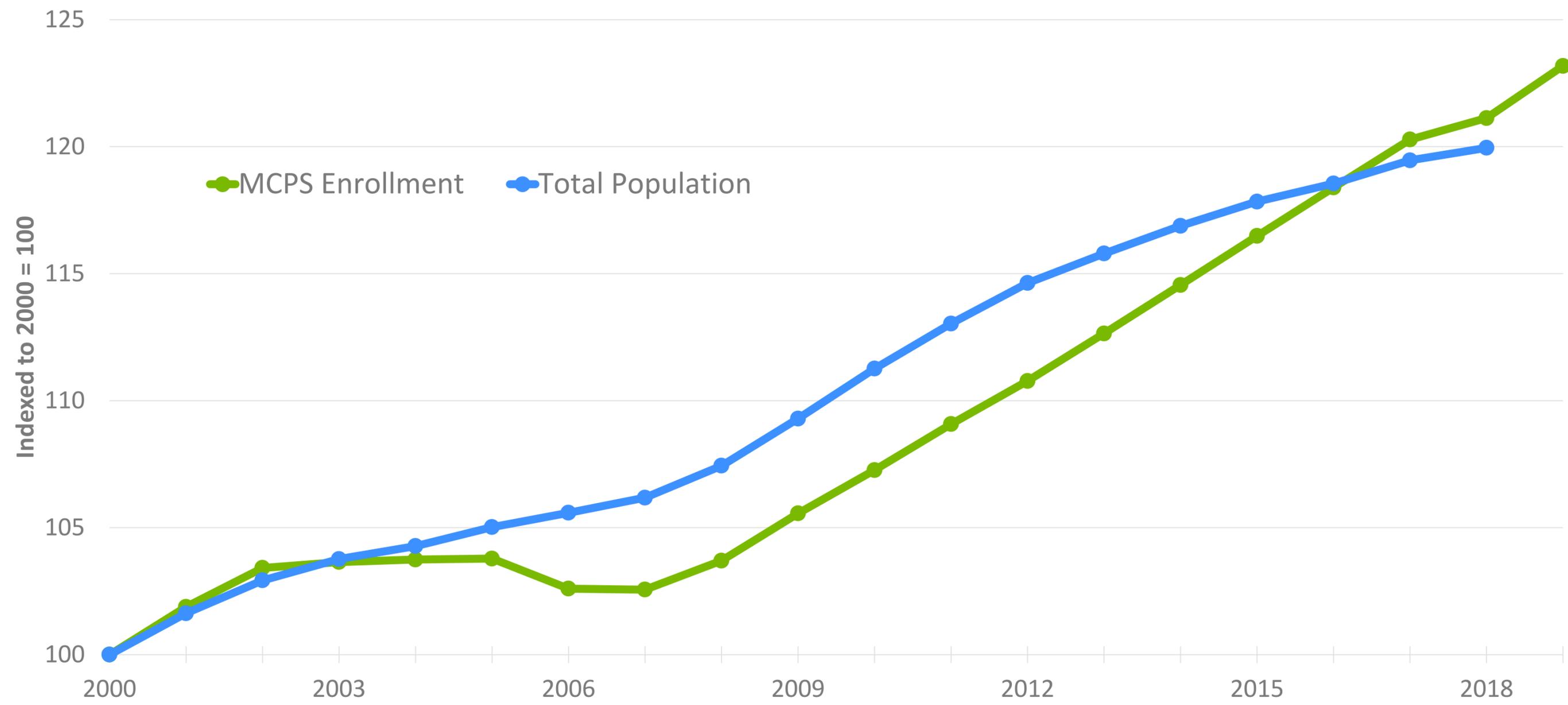
Enrollment and Population Growth Indexed to 1990 (1990-2019)



Source: Montgomery County Public Schools Enrollment; U.S. Census Bureau, Decennial U. S. Census, Population Estimate Program

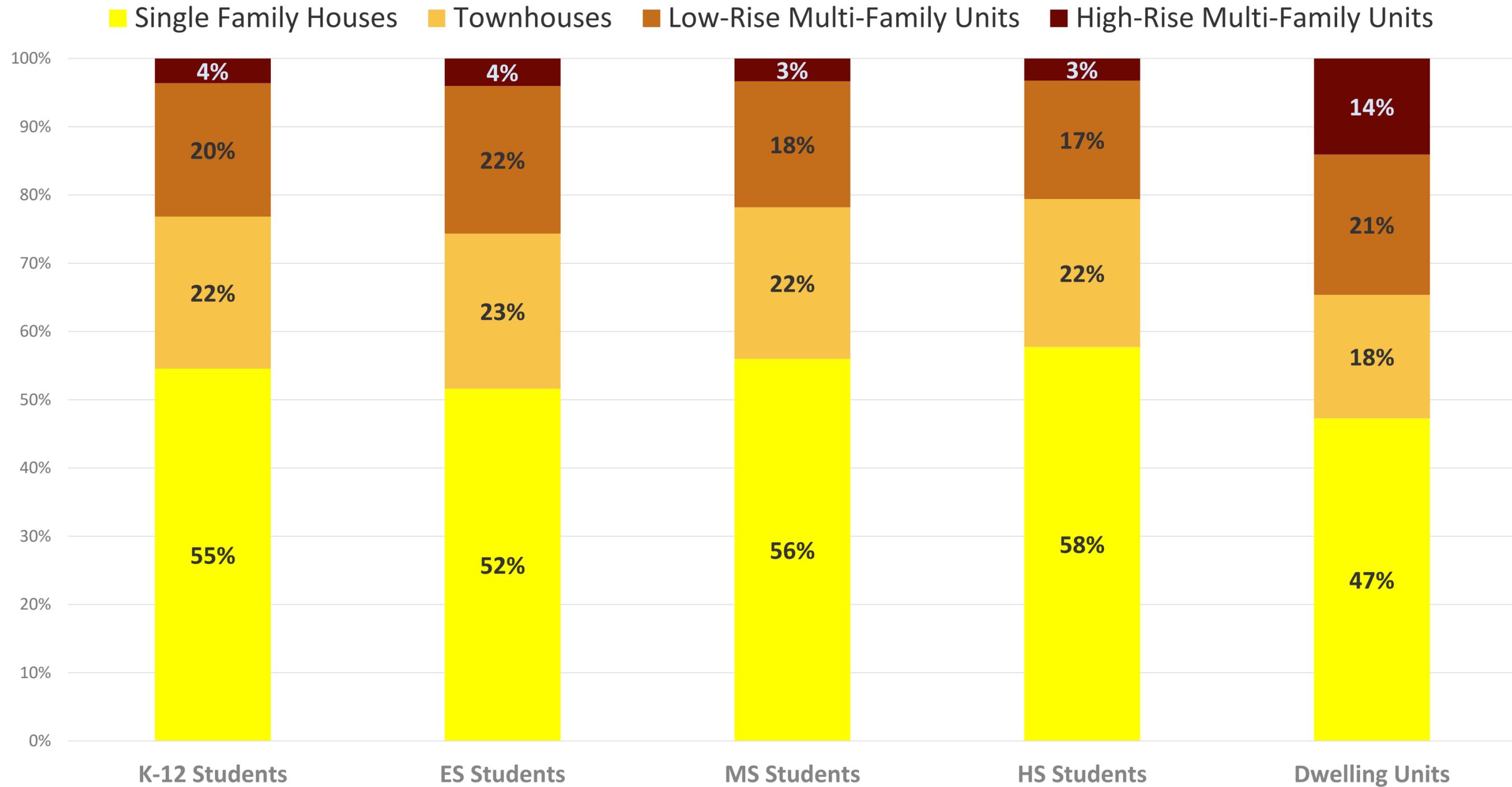
Indexed Growth: Population vs. Enrollment

Enrollment and Population Growth Indexed to 2000 (2000-2019)



Source: Montgomery County Public Schools Enrollment; U.S. Census Bureau, Decennial U. S. Census, Population Estimate Program

Share of Students by Housing Type



School Queue

- Cluster areas were previously identified as one of three statuses:
 - Open (under 105% utilization)
 - Open but requiring School Facility Payments (105-120% utilization)
 - In moratorium (120% utilization and above)
- The status would be maintained for the full fiscal year.
- Desire to allow a cluster's status to change mid-year.
- A staging ceiling was calculated to indicate how many projected students away a cluster was from entering the next status.

School Queue

- If a subdivision would cause a cluster to exceed the 120% threshold at any level, only the number of dwelling units that would reach the threshold would be allowed.
- Similarly, if a subdivision would cause a cluster to exceed the 105% threshold at any level, then the developer would be required to make the appropriate School Facility Payments for the number of dwelling units exceeding the threshold.
- Once a new status is triggered by any individual subdivision, the new status applies to all future application during the fiscal year.

School Queue

- We do not keep a running count or modify the staging ceiling with every approved application.
- Each application is reviewed against the original staging ceiling.

School Queue

- Confusion in the policy document (Section S7.2):
 - “The Planning Board must determine whether adequate staging ceiling capacity is available for a project by subtracting the capacity required by projects with earlier queue dates from the remaining capacity...”
 - “If sufficient capacity is available for a project based on the queue date, the Planning Board must not deny an application based on pipeline (but not staging ceiling) changes while the queue date is in effect.”
- More review of queue options when we discuss the policy in depth in the new year.

Alternative Student Generation Rates

How are the SGRs Calculated?

- Planning receives enrollment data from MCPS
 - One record per student, with address and grade
- Map each address and join it to SDAT property database to identify:
 - Geographies (region of the county, cluster, school)
 - Type of dwelling (Single Family, Townhouse, MF Low, MF High)
- SDAT data requires a substantial amount of clean-up
- Process has improved with each attempt

How are the SGRs Calculated?

- For each geography and dwelling type combination:
 - Calculate total number of students by grade level
 - Calculate total unit count (regardless of students)
- Divide the total number of students by the total unit count
- Resulting ratio is the **average number of students generated in any given year by the particular dwelling type in the given geography**

Current Student Generation Rates

Student Generation Rates are an average of the number of students per type of dwelling unit.

2018 MCPS Student Generation Rates by Region and Housing Type

COUNTYWIDE STUDENT GENERATION RATES		ES	MS	HS	K-12
Countywide	Single Family Detached	0.199	0.110	0.154	0.462
	Single Family Attached	0.227	0.113	0.150	0.490
	Multi-Family Low to Med Rise	0.197	0.086	0.109	0.393
	Multi-Family High Rise	0.055	0.023	0.031	0.110

REGIONAL STUDENT GENERATION RATES		ES	MS	HS	K-12
East Blair, Einstein, Kennedy, Northwood, Wheaton, Blake, Paint Branch and Springbrook clusters	Single Family Detached	0.203	0.103	0.144	0.450
	Single Family Attached	0.219	0.115	0.160	0.494
	Multi-Family Low to Med Rise	0.253	0.112	0.148	0.512
	Multi-Family High Rise	0.088	0.036	0.047	0.171
Southwest Bethesda-Chevy Chase, Churchill, Walter Johnson, Richard Montgomery, Rockville, Whitman, and Wootton clusters	Single Family Detached	0.186	0.109	0.151	0.446
	Single Family Attached	0.167	0.085	0.111	0.363
	Multi-Family Low to Med Rise	0.150	0.068	0.085	0.303
	Multi-Family High Rise	0.041	0.018	0.025	0.084
Upcounty Clarksburg, Damascus, Gaithersburg, Magruder, Northwest, Poolesville, Quince Orchard, Seneca Valley, Sherwood, and Watkins Mill clusters	Single Family Detached	0.210	0.120	0.169	0.499
	Single Family Attached	0.248	0.121	0.157	0.526
	Multi-Family Low to Med Rise	0.183	0.077	0.093	0.352
	Multi-Family High Rise	0.020	0.008	0.010	0.038

Rates are calculated using Fall 2018 enrollment data from Montgomery County Public Schools. Of the nearly 163,000 students enrolled in MCPS schools in Fall 2018, Planning Staff were able to match 99.4% of the students to a housing type.

How are the SGRs Currently Used?

- Countywide, by grade level and unit type
 - Calculation of School Impact Tax rates
- Regional, by grade level and unit type
 - Estimation of the enrollment impacts of a sector plan
 - Estimation of the enrollment impacts of a development application
- Cluster, by grade level
 - Provided to MCPS for projection models

Important Note

- Don't focus so much on the numbers
- Look at the relationships

Questions to Ask as we Review SGRs

- What do these data show? What relationships do they demonstrate?
- Are these relationships important?
- Should these be used? If so, how?
- Should we look at a variation of these? Is there a better way to operationalize the relationship?

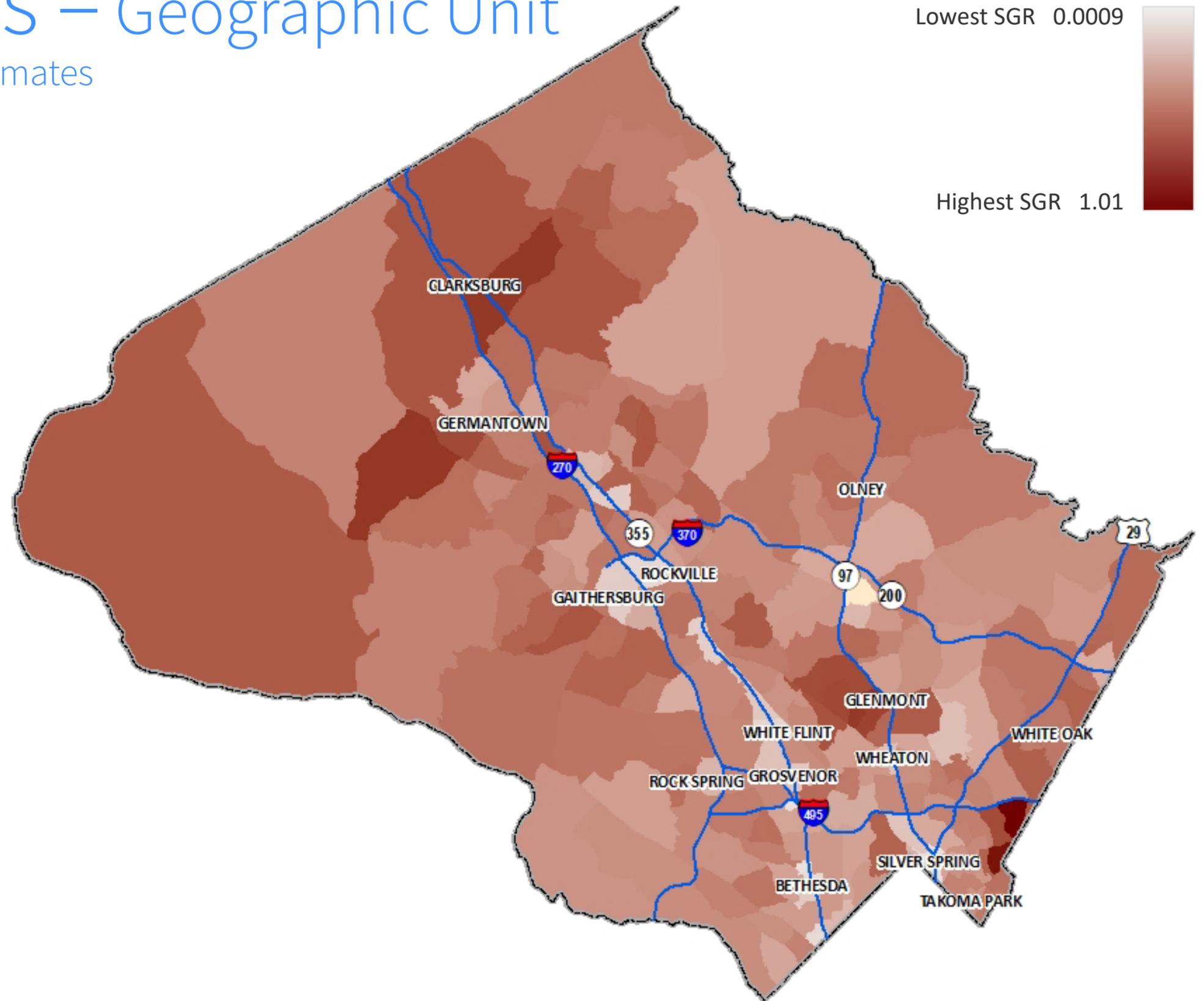
Alternative SGRs: Census-Based Rates

Census* Based Rates – Geographic Unit

*2017 American Community Survey 5-year Estimates

Census Tracts

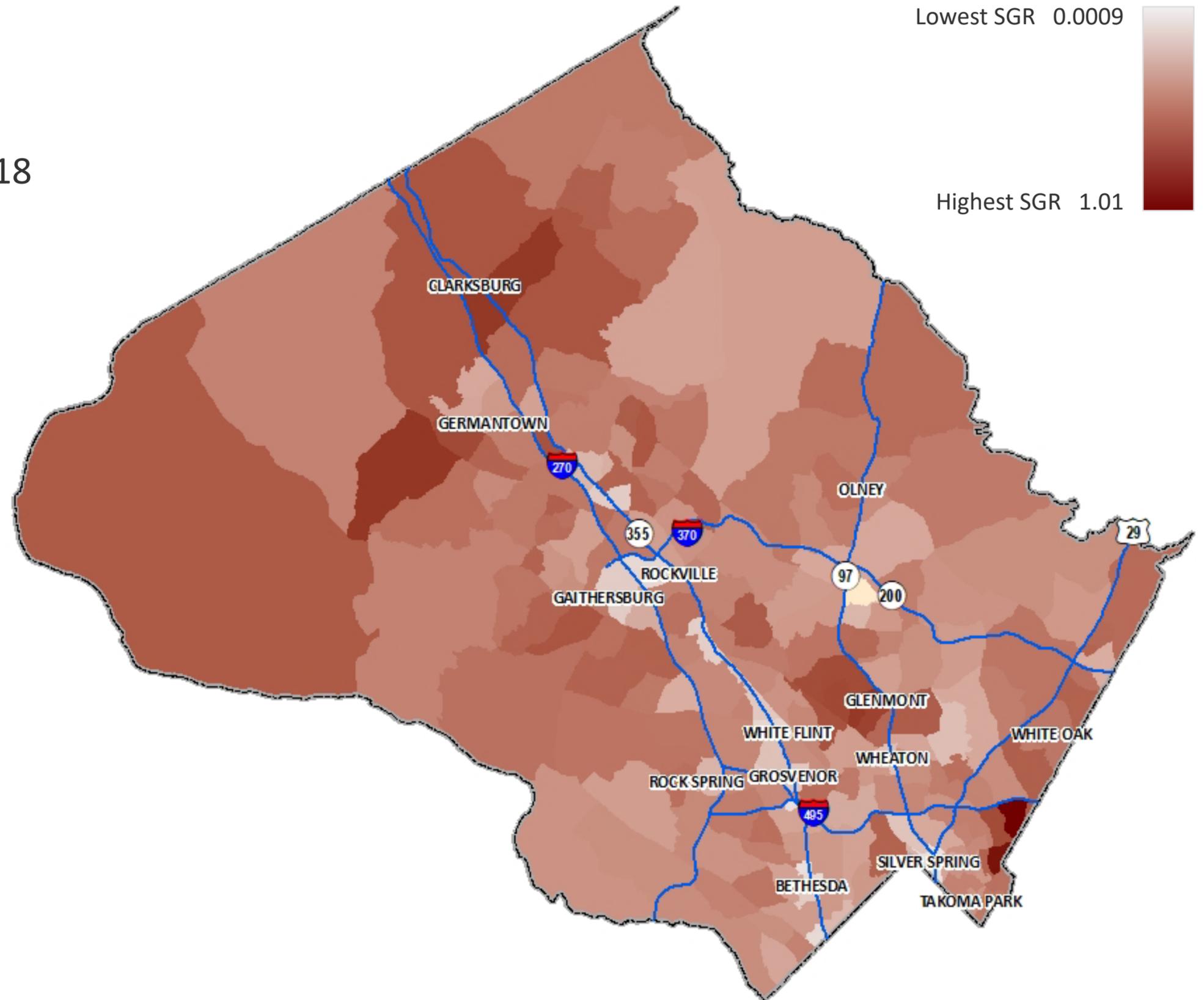
- small, relatively permanent geographic entities
- boundaries follow visible features
- designed to be homogeneous with respect to population characteristics, economic status, and living conditions
- optimum population size of 4,000 - generally ranges between 1,200 to 8,000+



Student Generation Rate by Census Tract, K-12

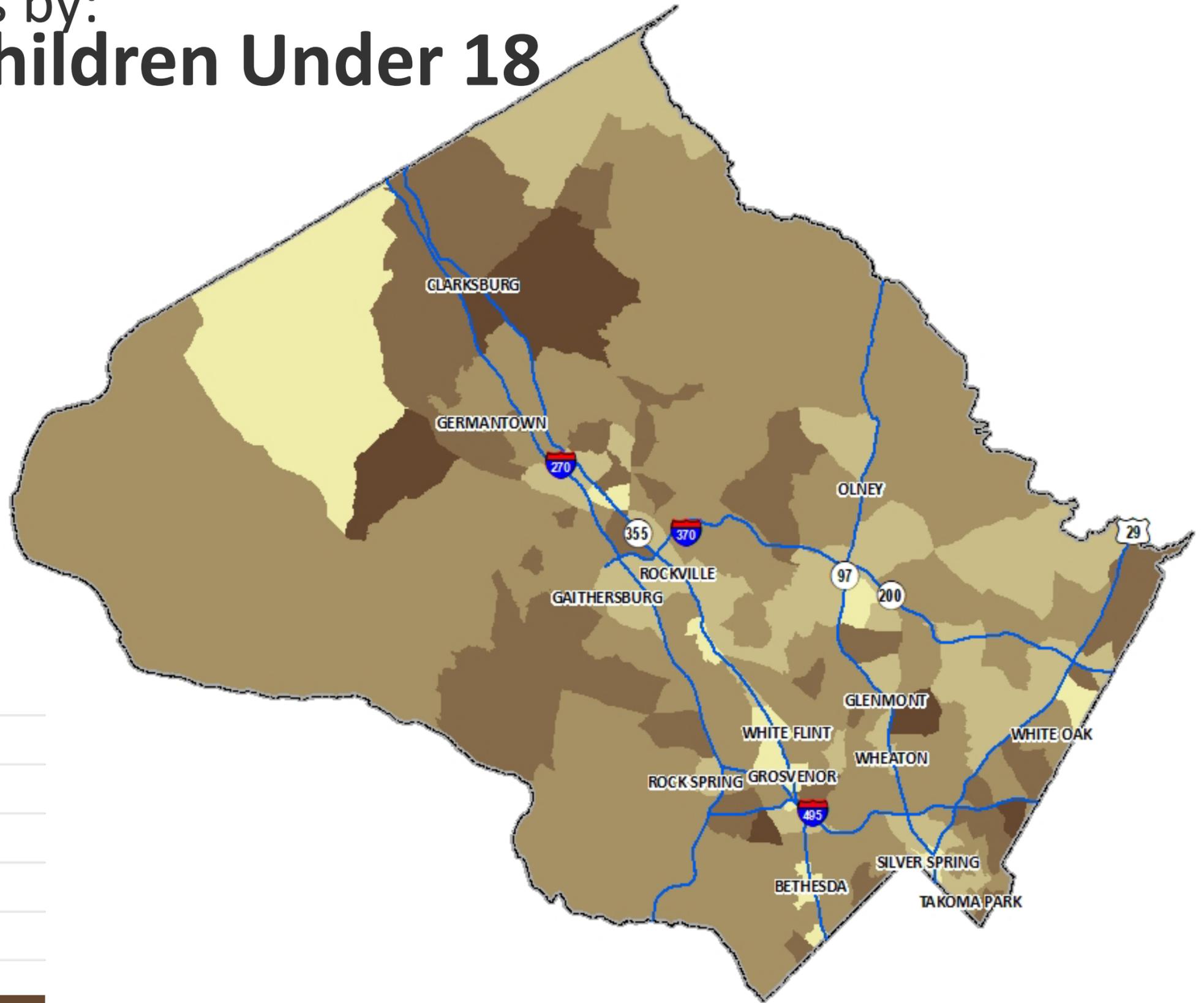
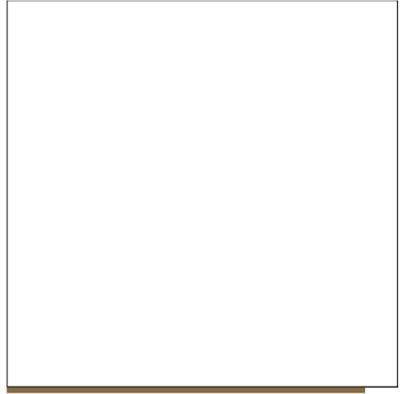
K-12 All Units SGR

- High positive correlation to:
 - % of Households with Children Under 18
 - % of Households that are Families
 - Average Family Size
- Positive correlation to:
 - % People of Color
 - % Hispanic
 - % Foreign Born
 - # and % of units SFD
 - # and % of units SFA
- Negative correlation to:
 - Population Density
 - Median Age
 - Median Family Income
 - % White non-Hispanic
- High negative correlation to:
 - # and % of units Multifamily High-rise

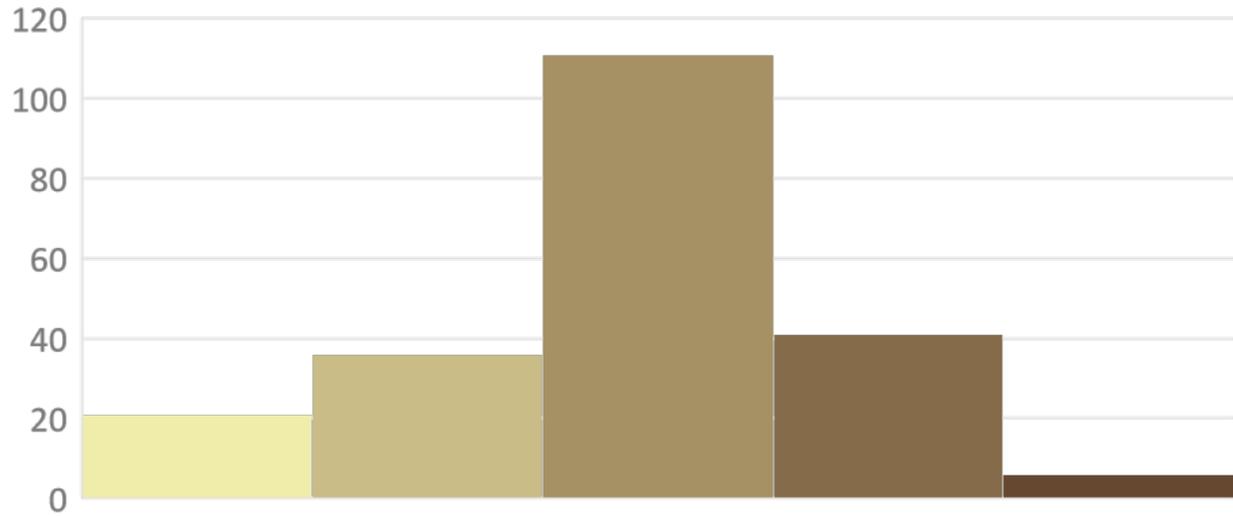


Student Generation Rate by Census Tract, K-12

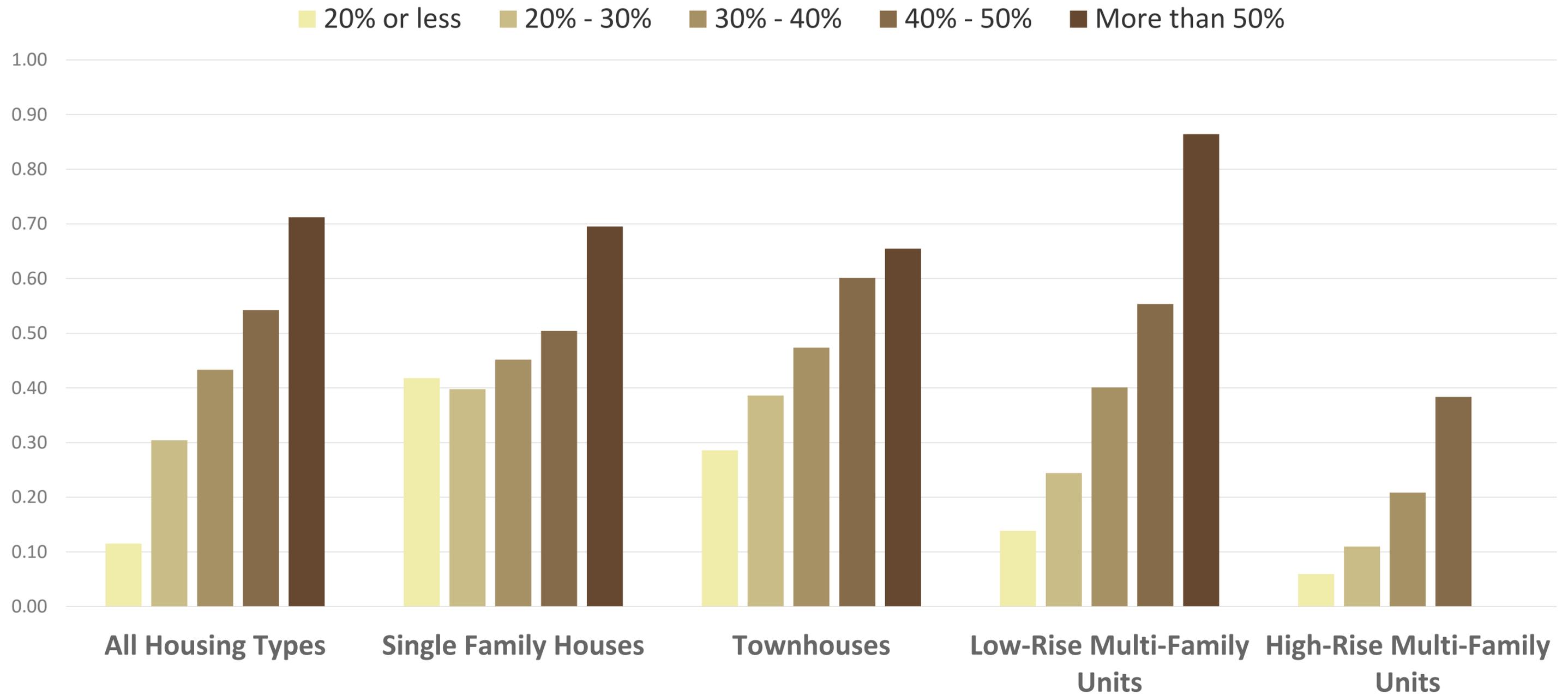
Distribution of Census Tracts by: % of Households w/Children Under 18



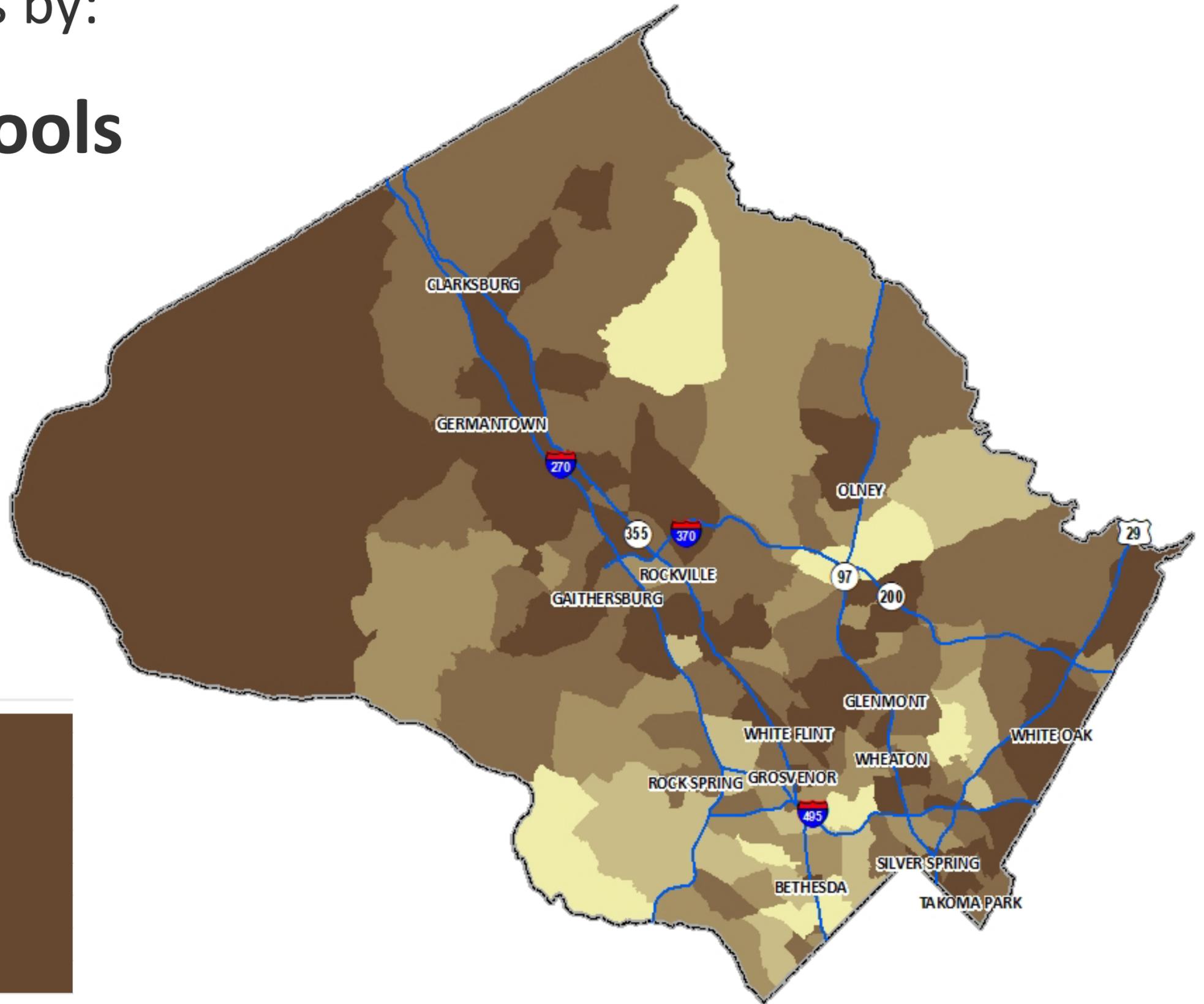
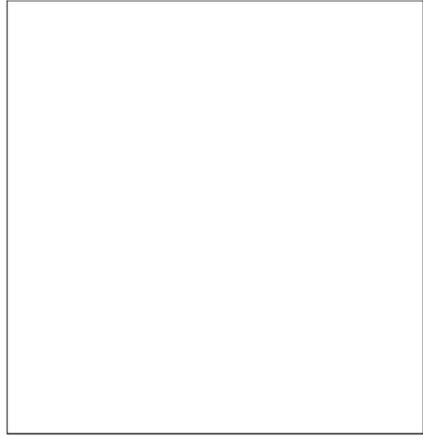
Count of Census Tracts



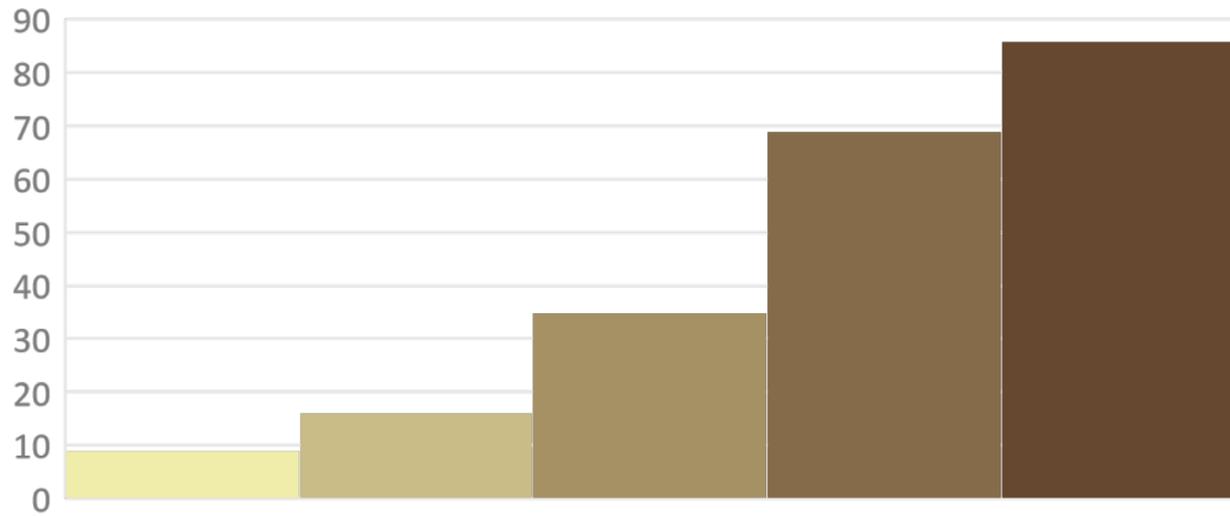
Student Generation Rate for Census Tracts by: % of Households w/Children Under 18 & Housing Type



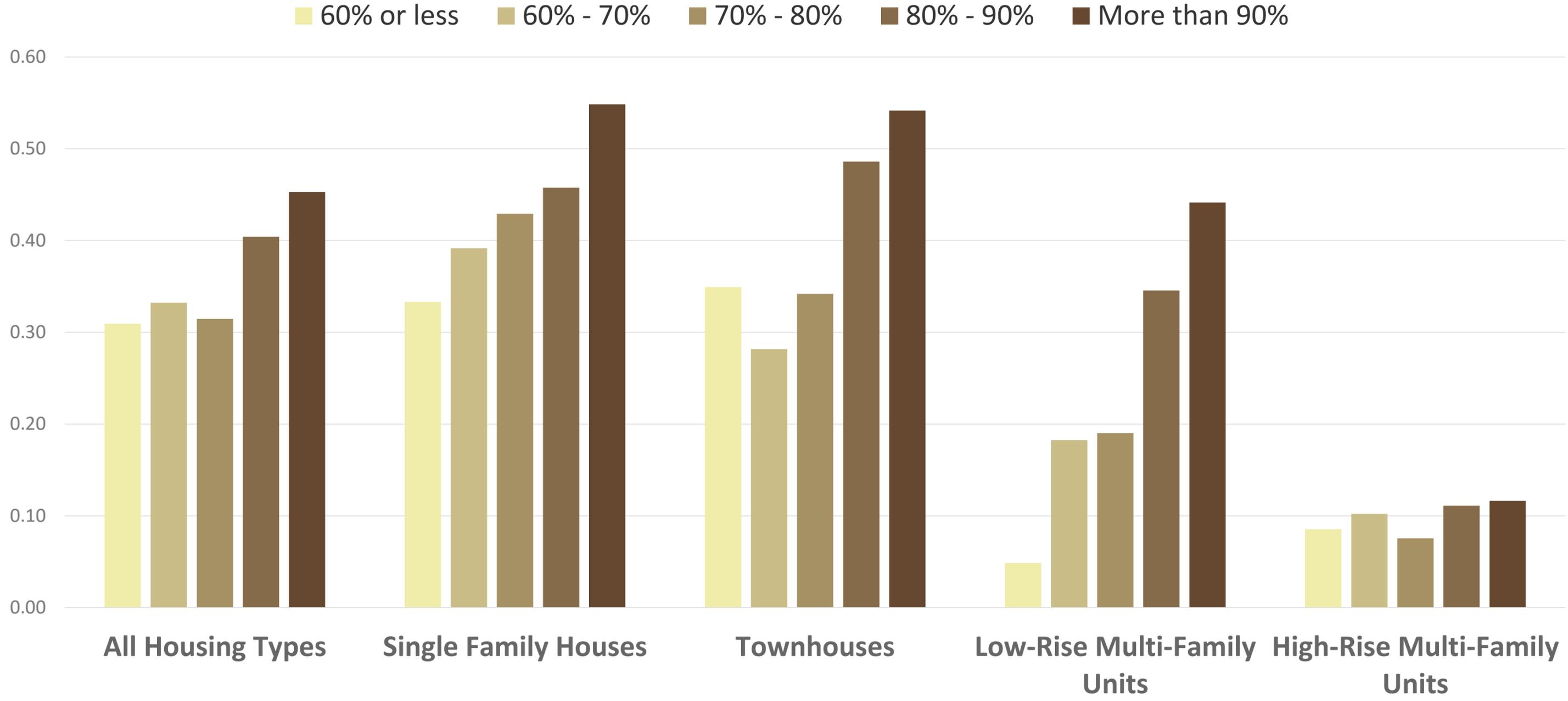
Distribution of Census Tracts by: % of K to 12 Students Enrolled in Public Schools



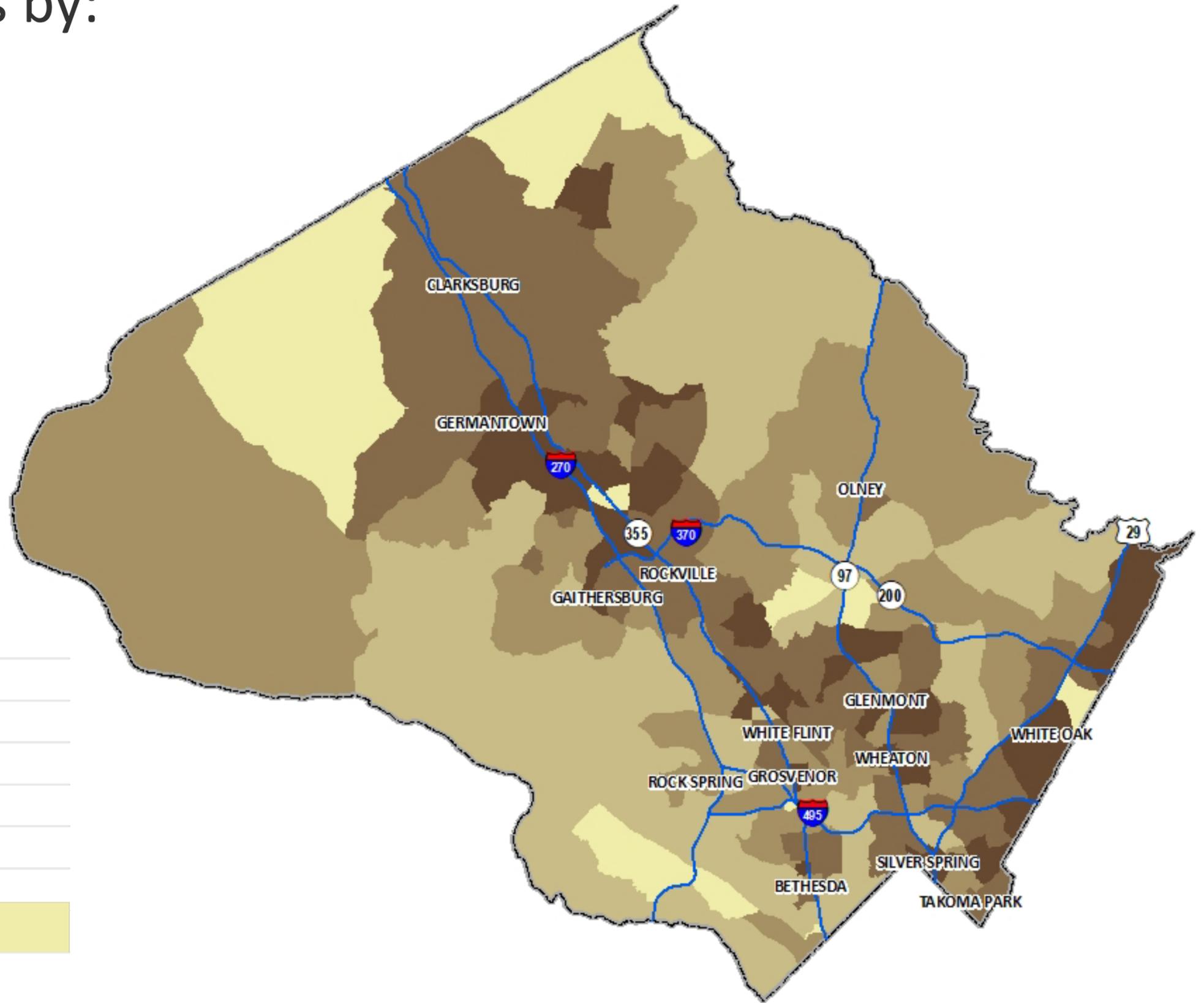
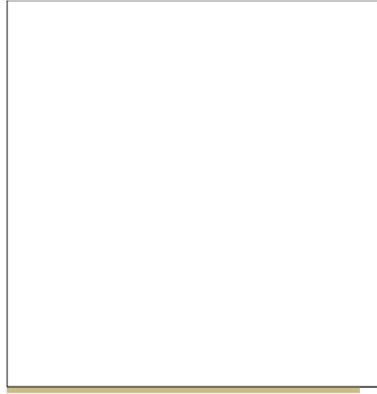
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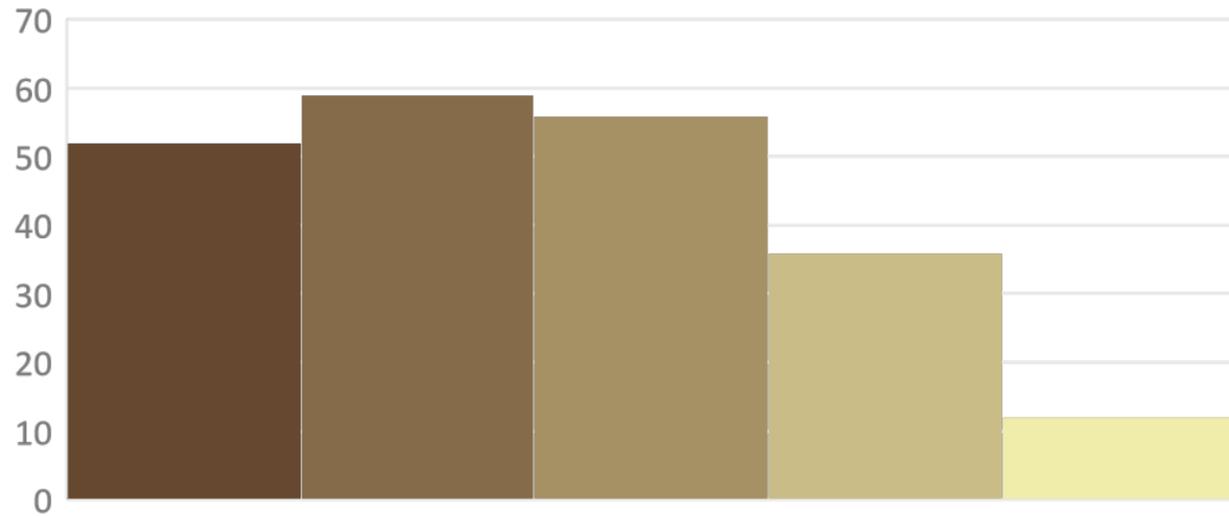
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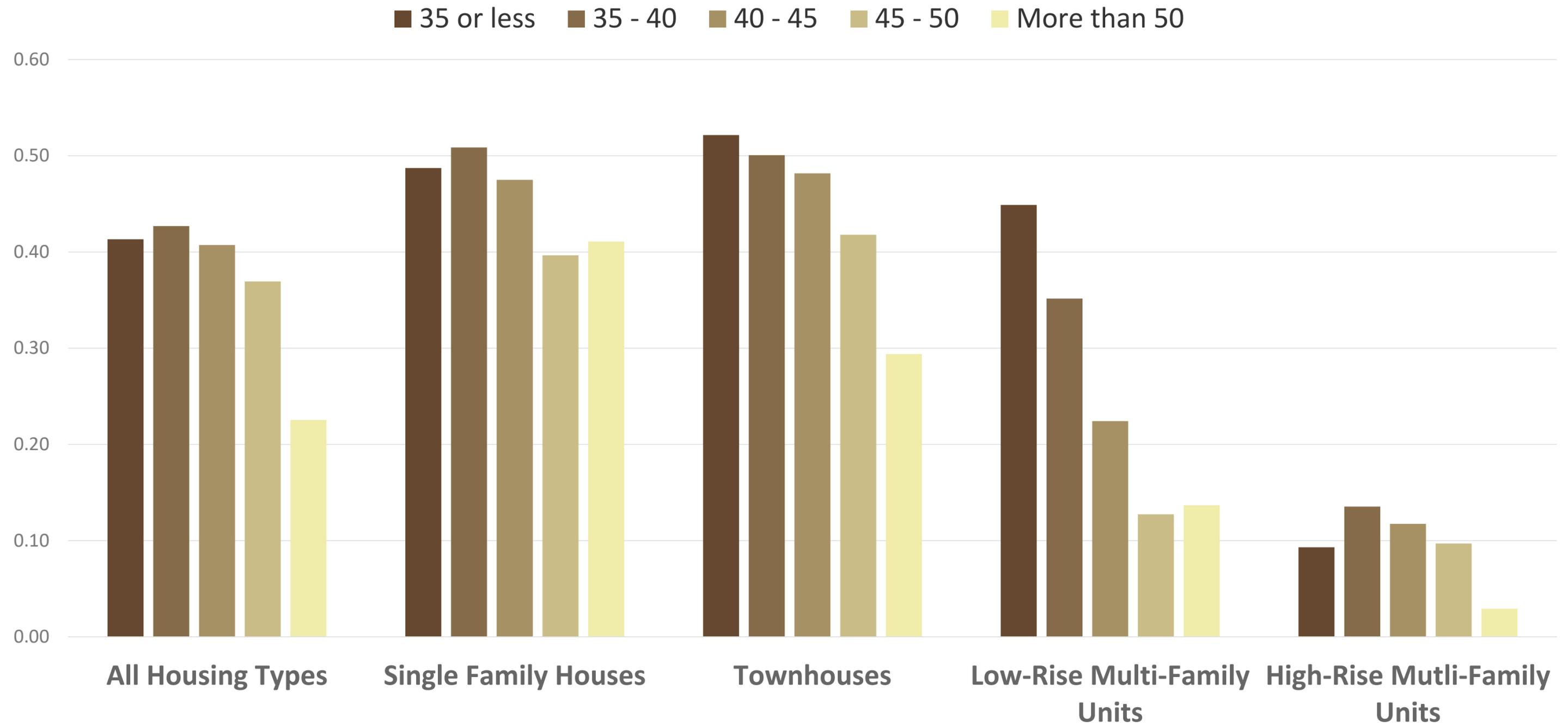
Distribution of Census Tracts by: **Median Age**



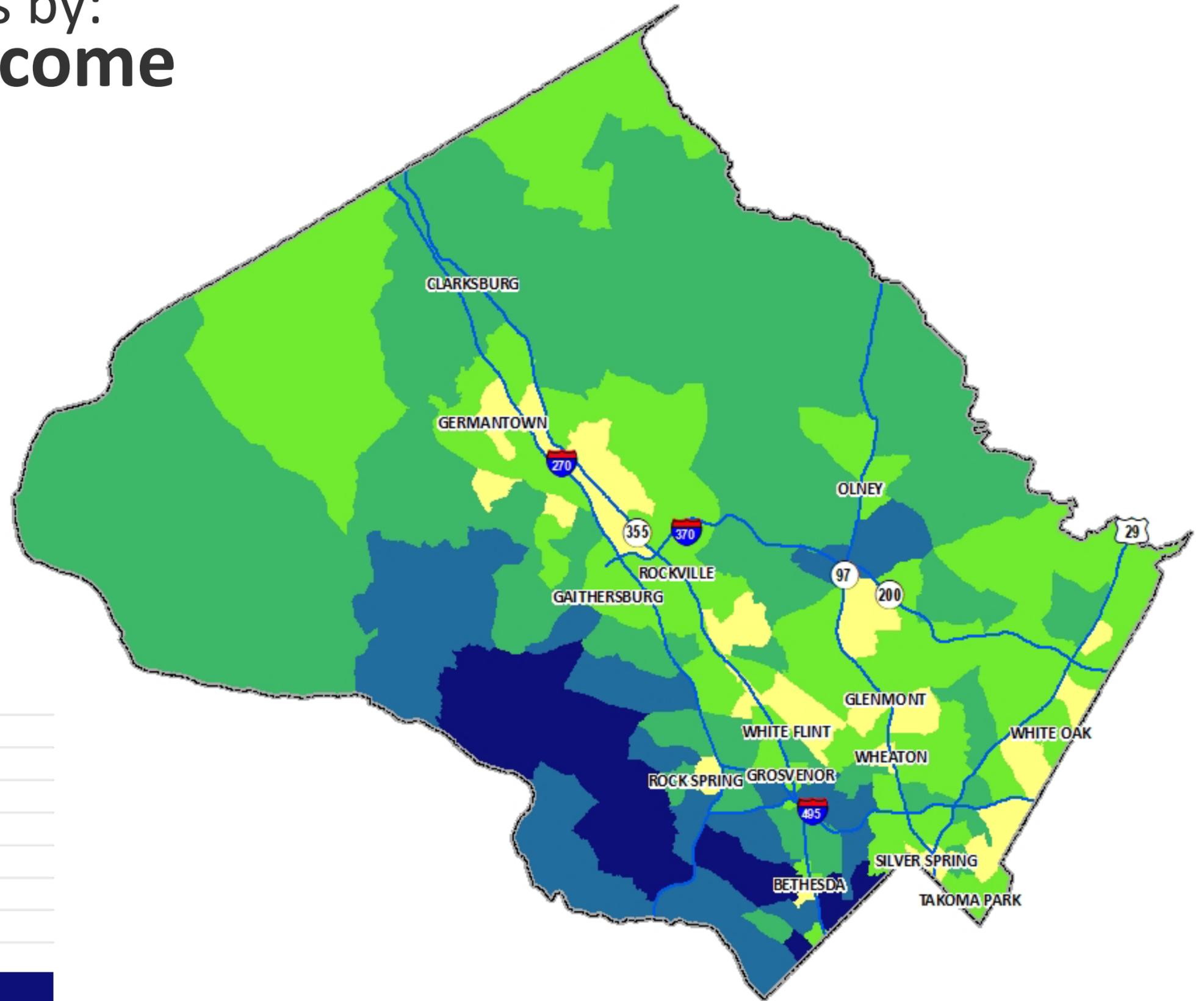
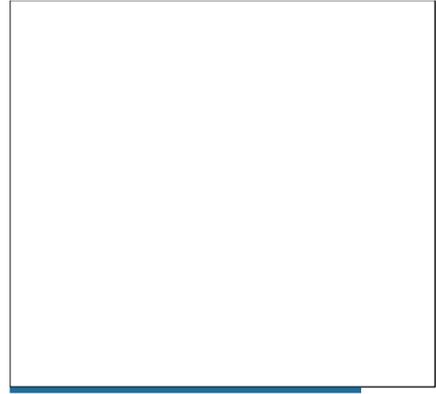
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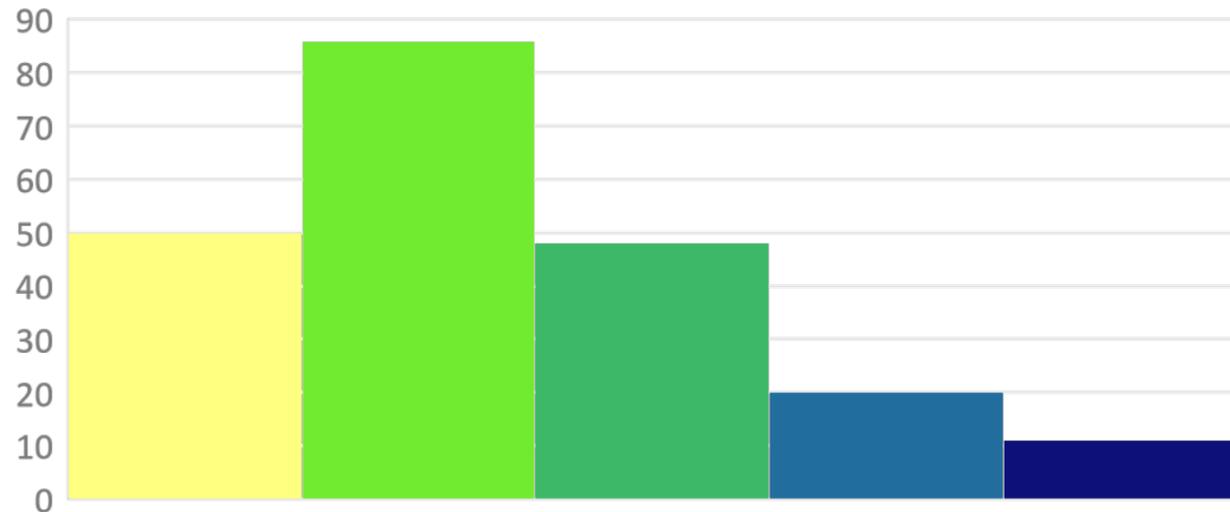
Student Generation Rate for Census Tracts by: **Median Age and Housing Type**



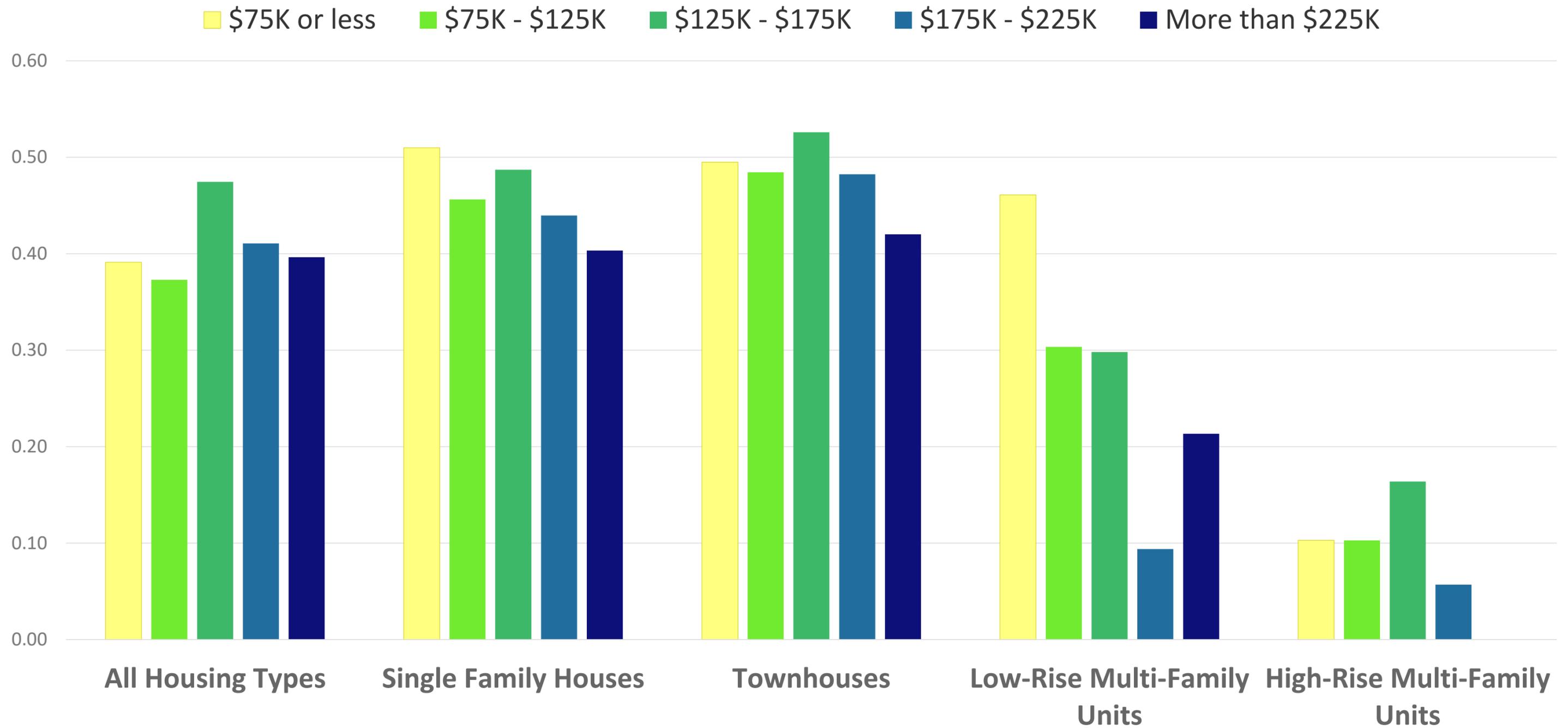
Distribution of Census Tracts by: Median Household Income



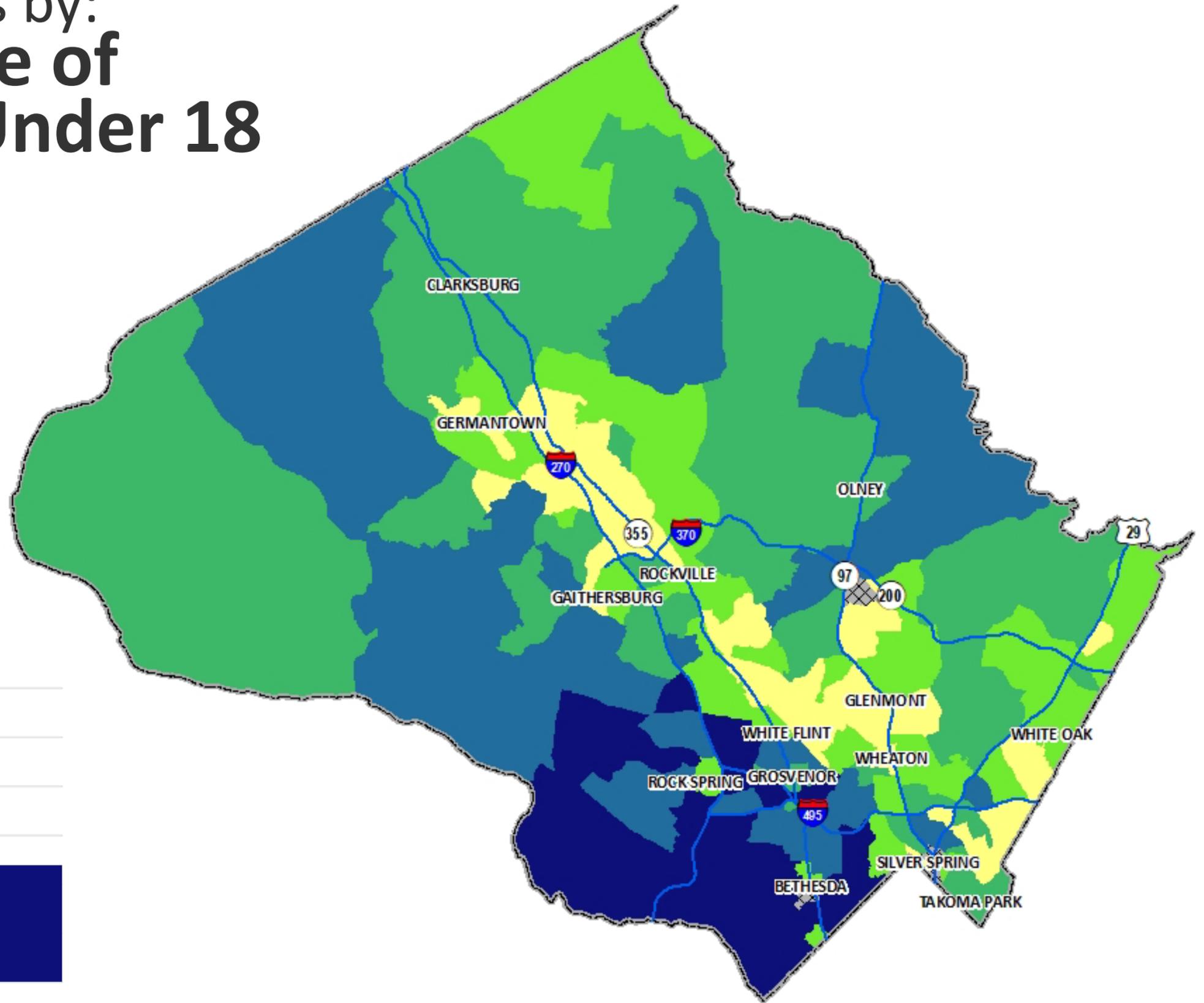
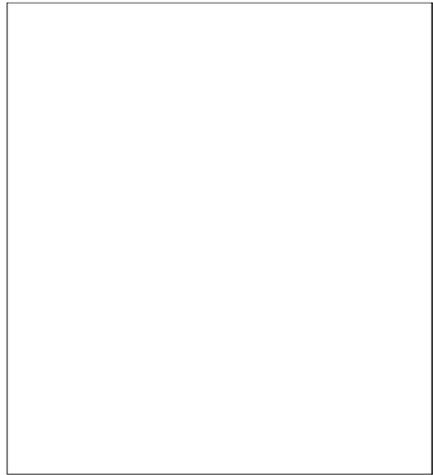
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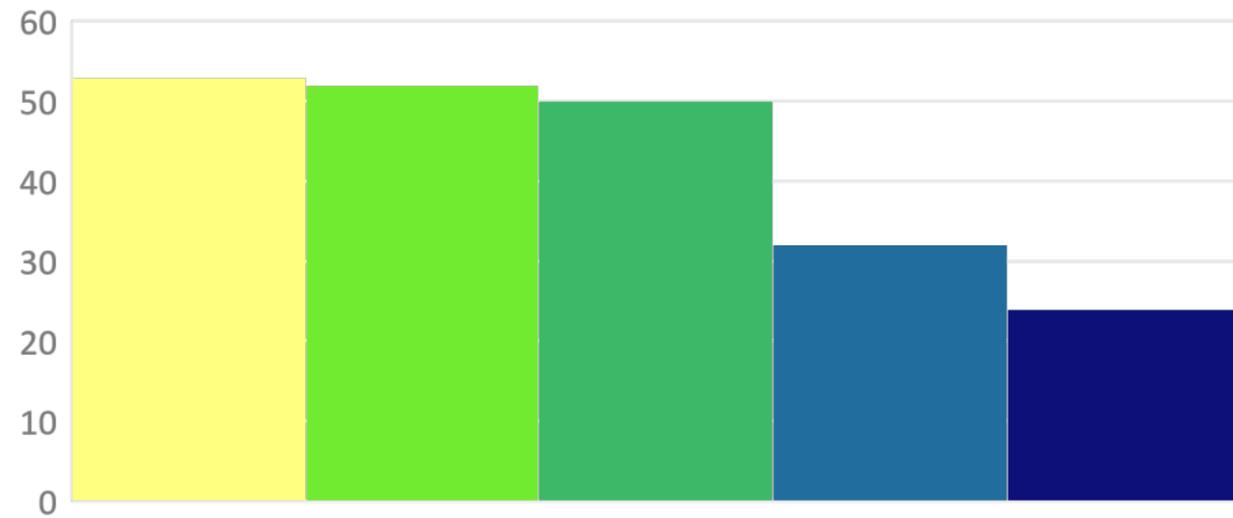
Student Generation Rate for Census Tracts by: Median Household Income and Housing Type



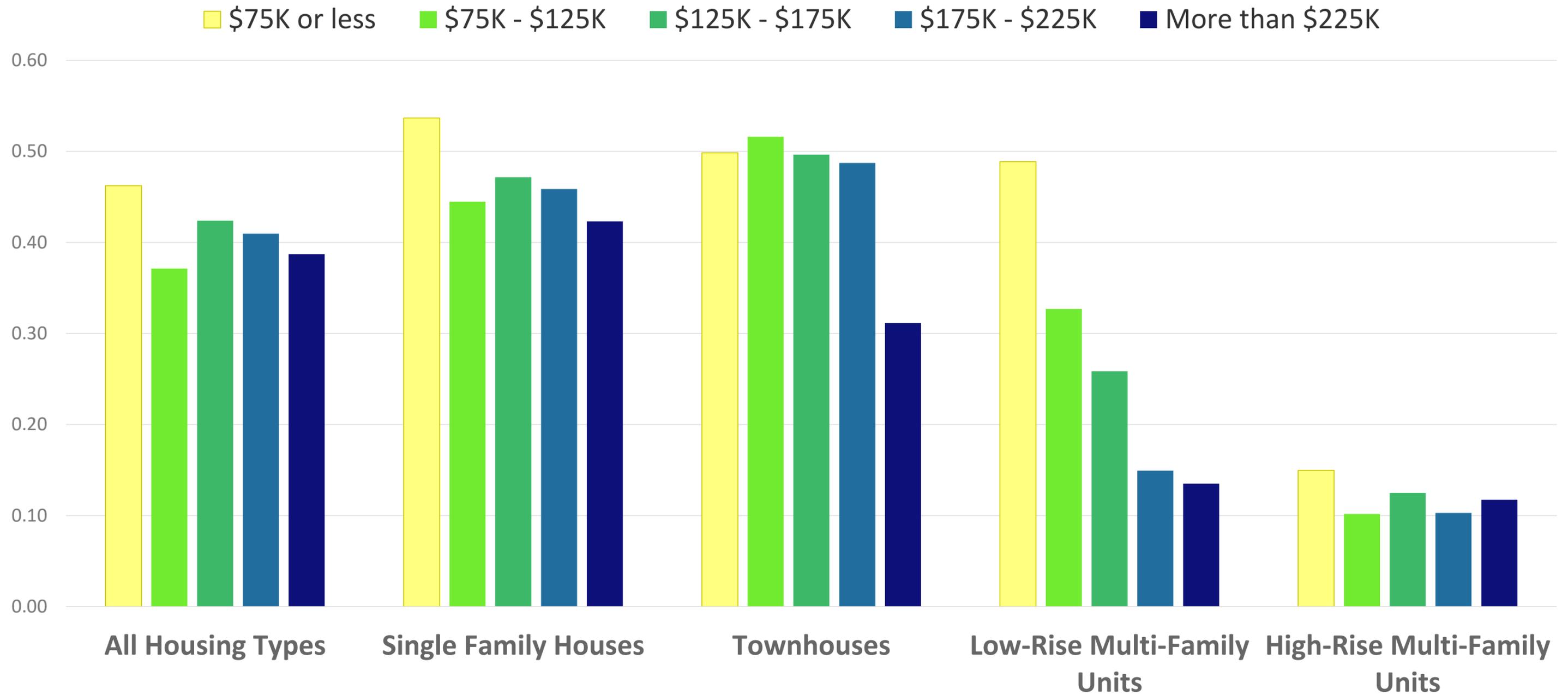
Distribution of Census Tracts by: Median Family Income of Families w/Children Under 18



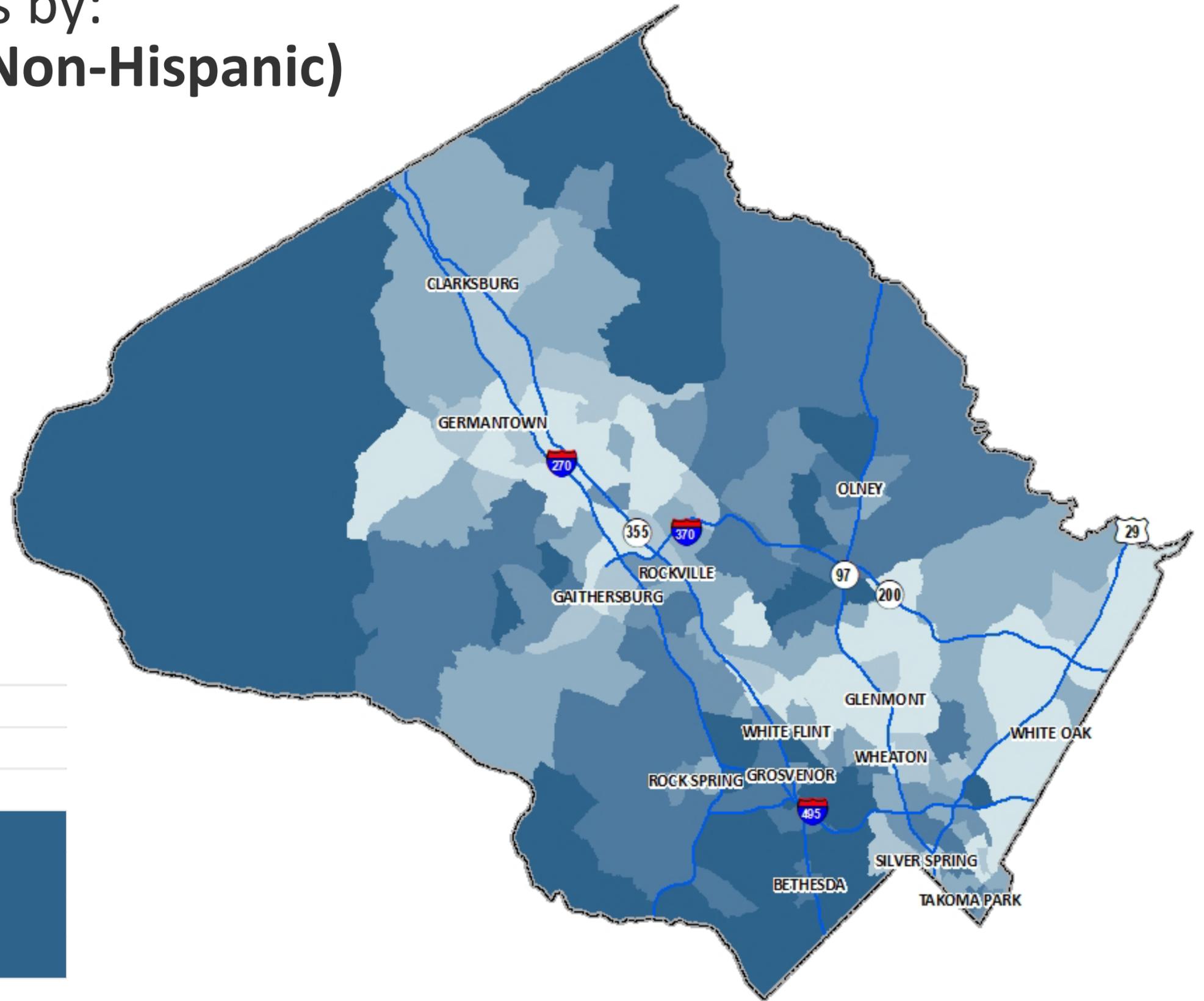
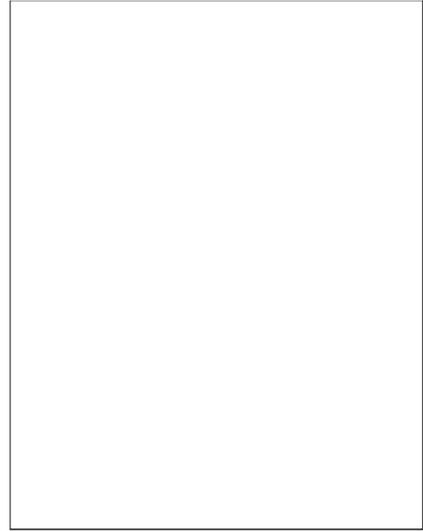
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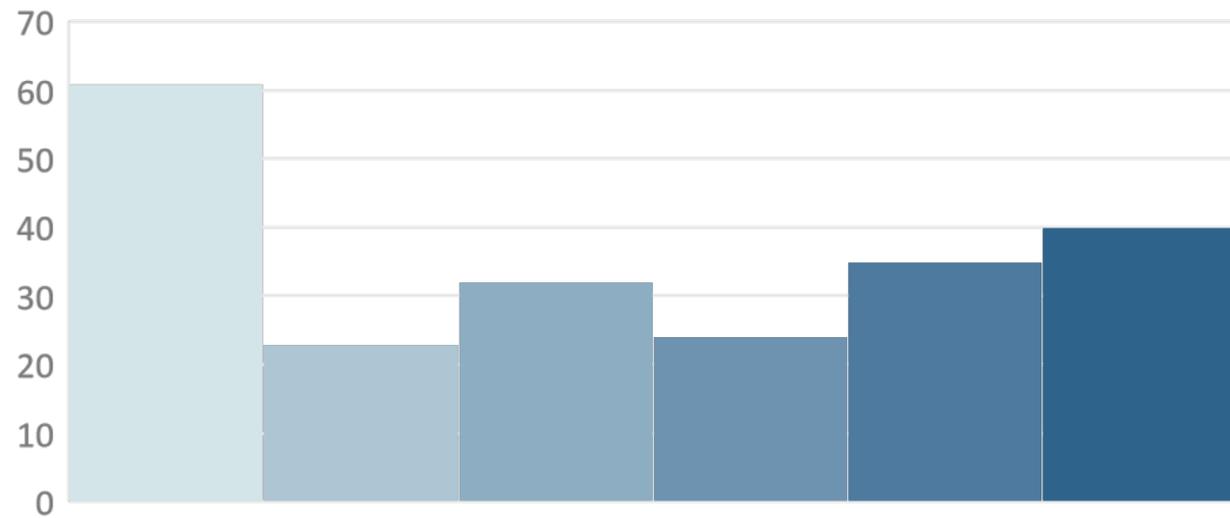
Student Generation Rate for Census Tracts by: **Median Family Income (of Families w/Children U18)** **& Housing Type**



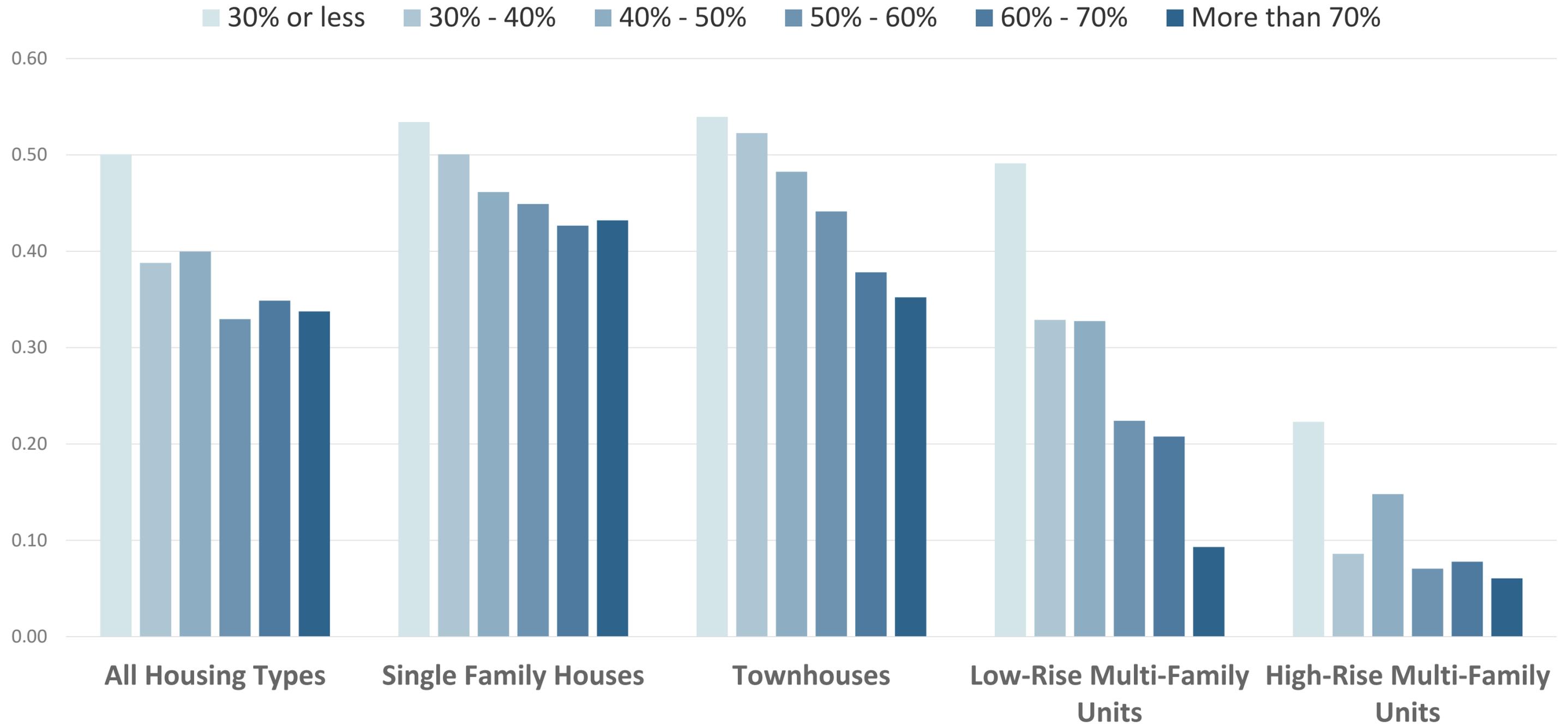
Distribution of Census Tracts by: % **White Population (Non-Hispanic)**



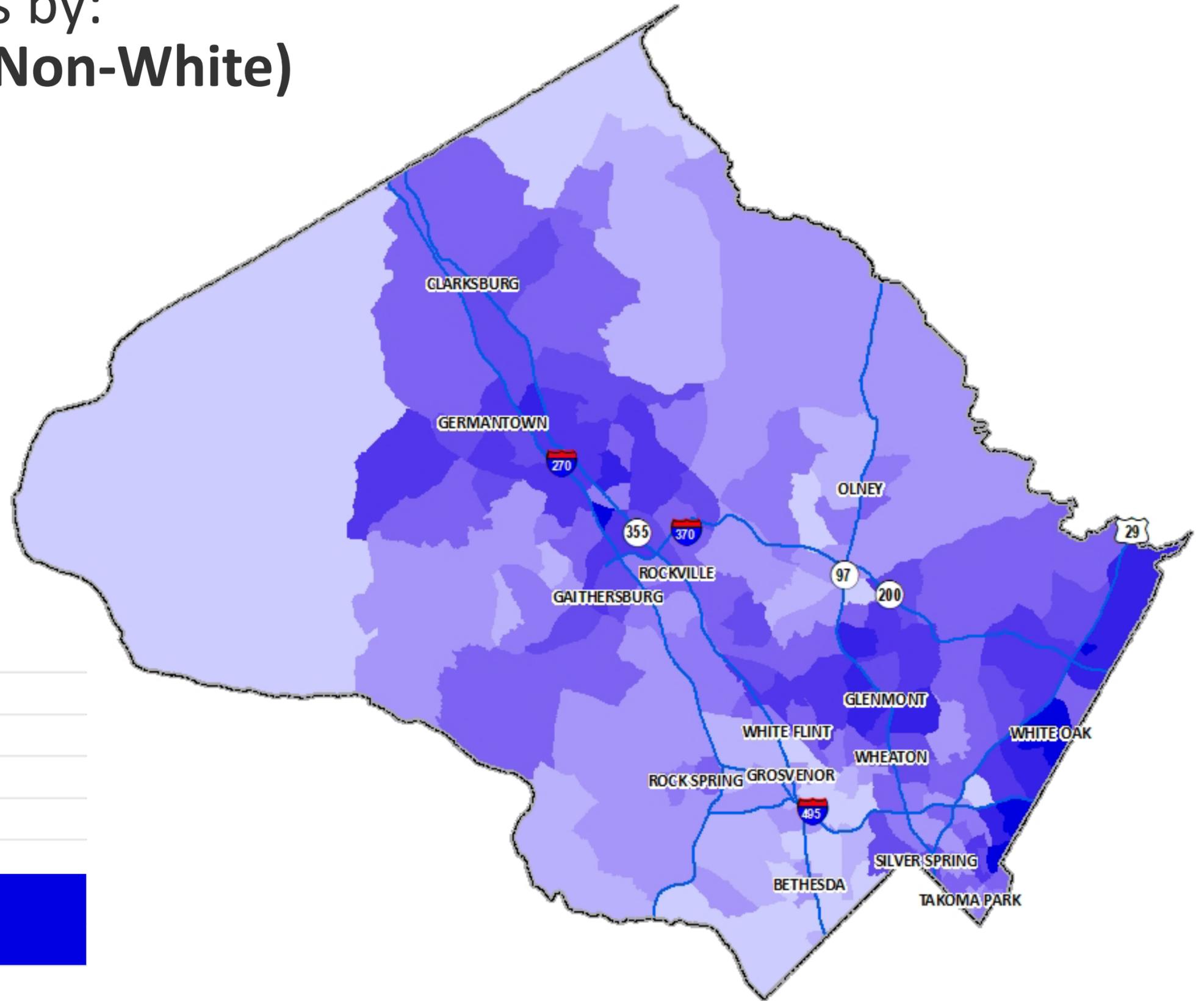
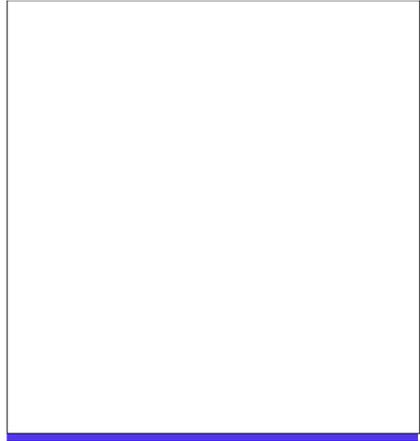
Count of Census Tracts



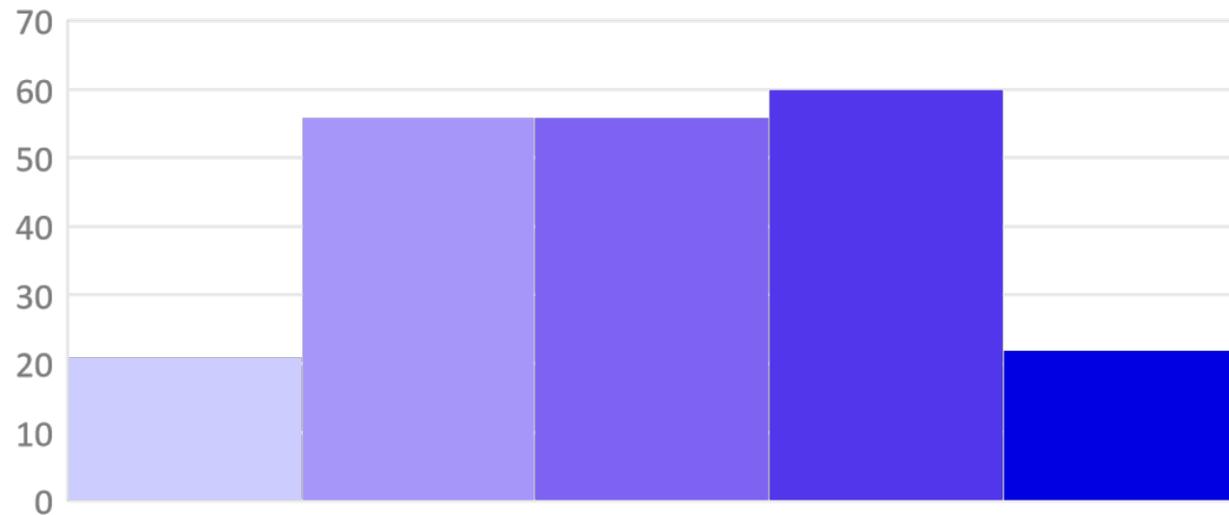
Student Generation Rate for Census Tracts by: **% White Population (Non-Hispanic) and Housing Type**



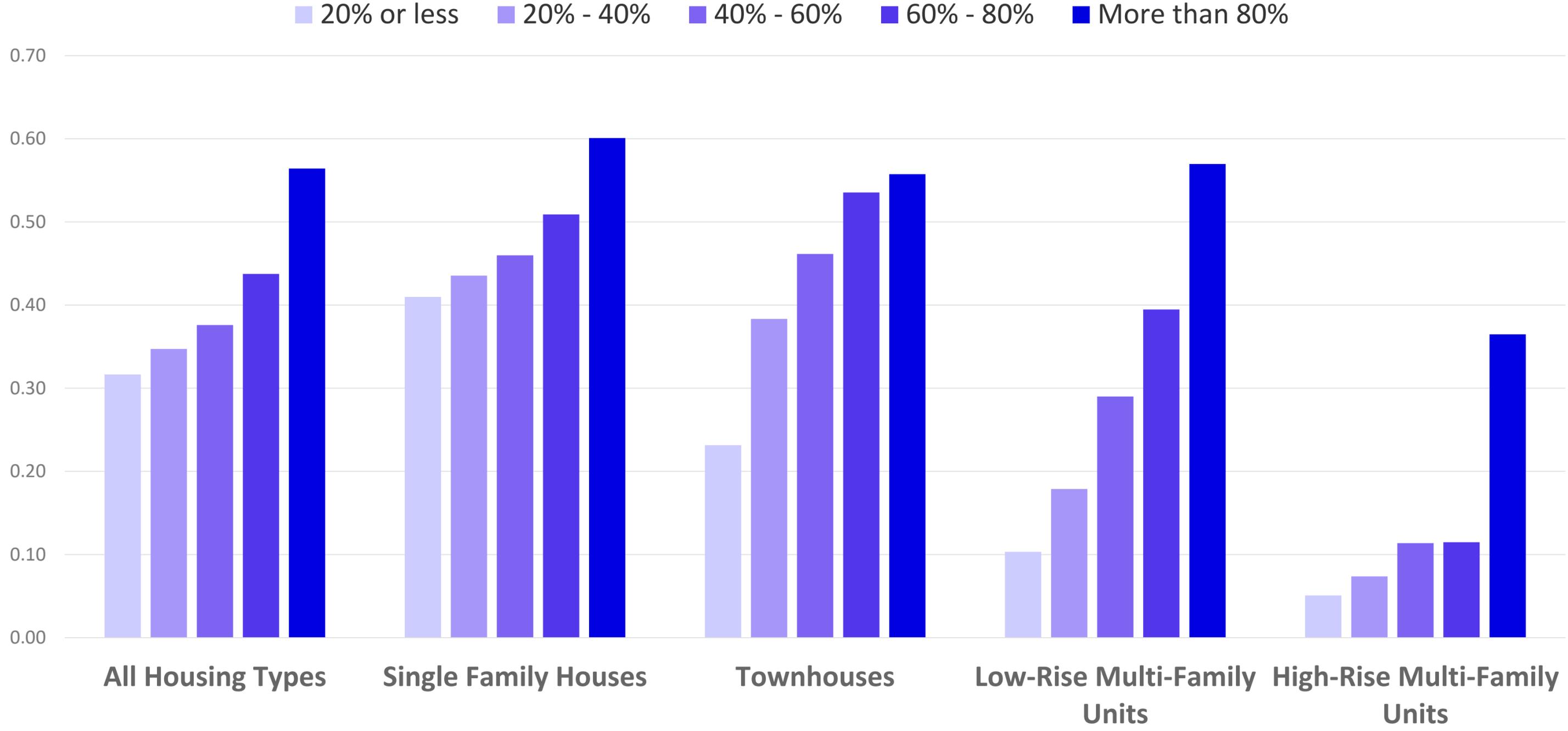
Distribution of Census Tracts by: % People of Color (All Non-White)



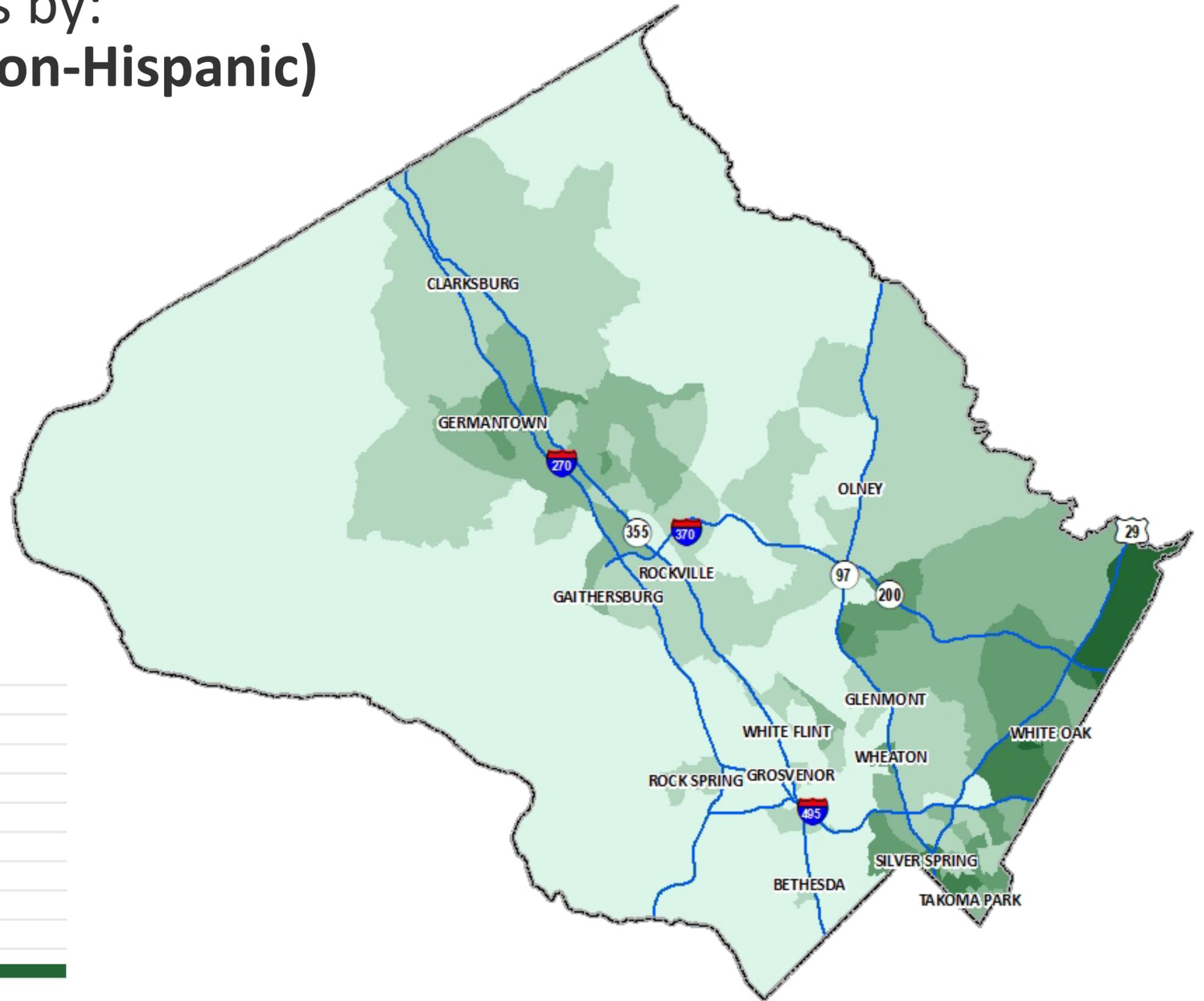
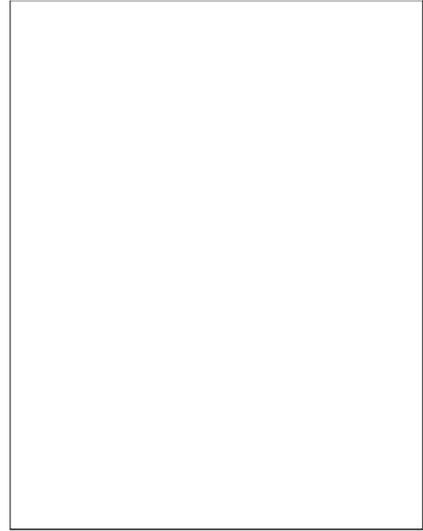
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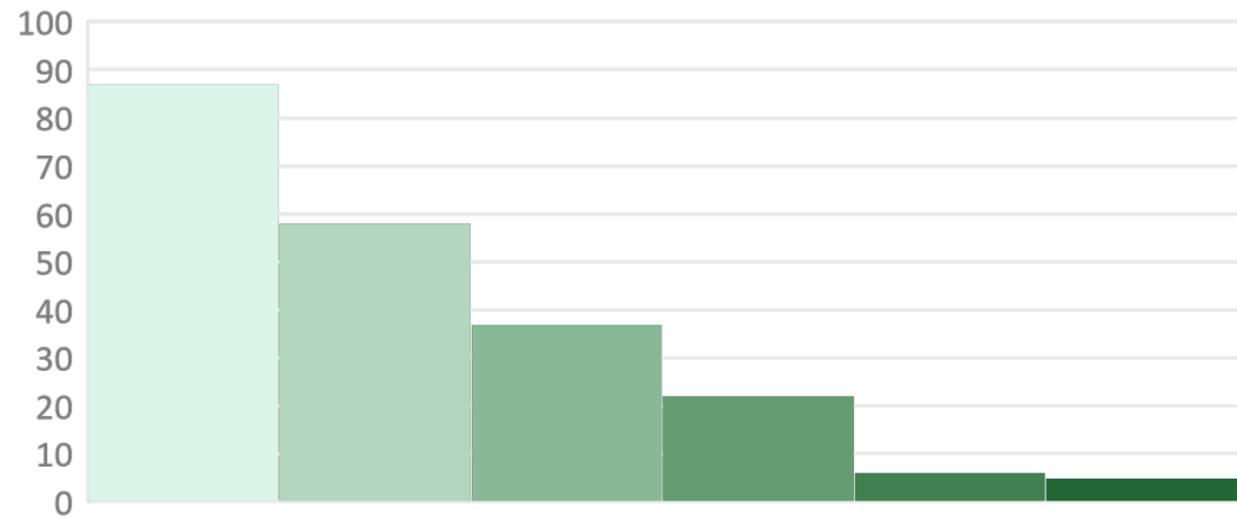
Student Generation Rate of Census Tracts by: % People of Color and Housing Type



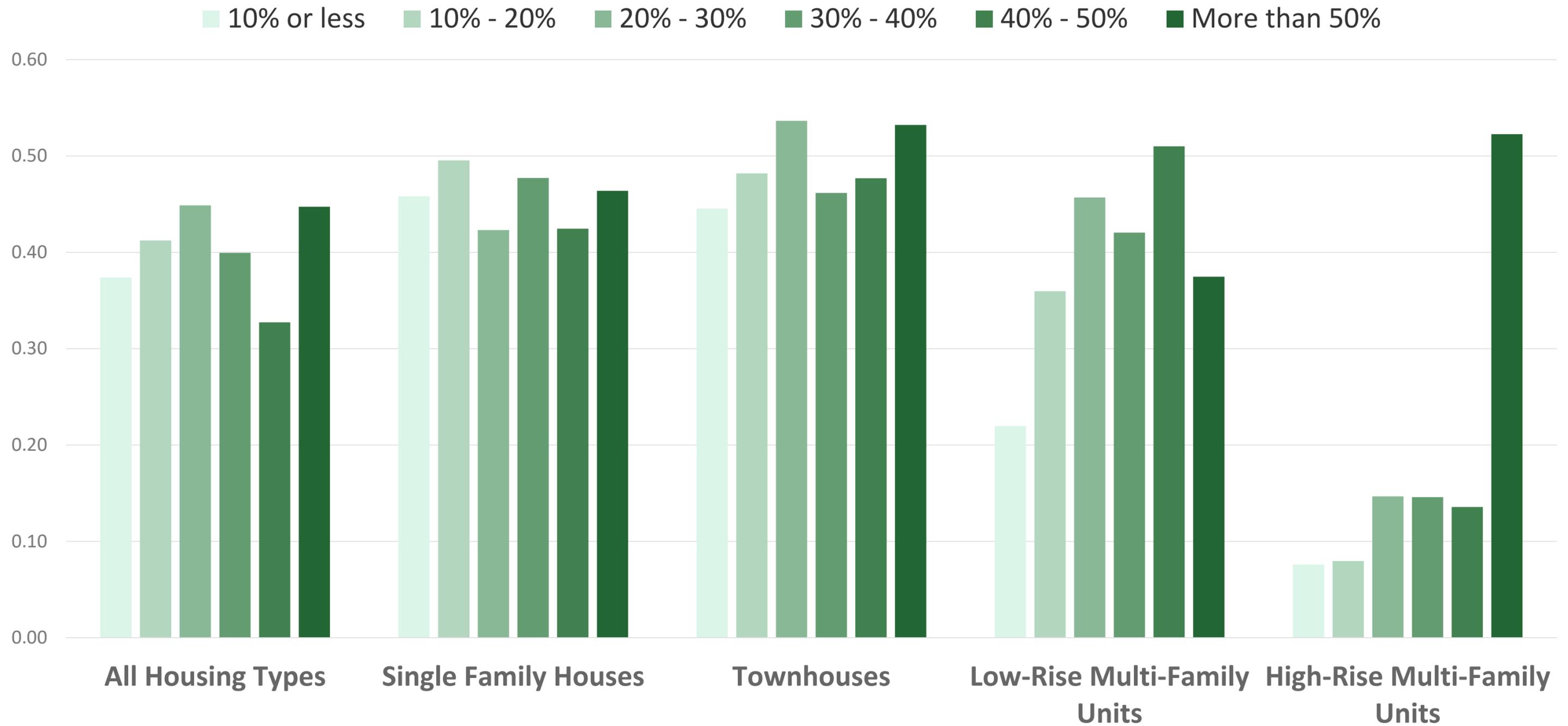
Distribution of Census Tracts by: % Black Population (Non-Hispanic)



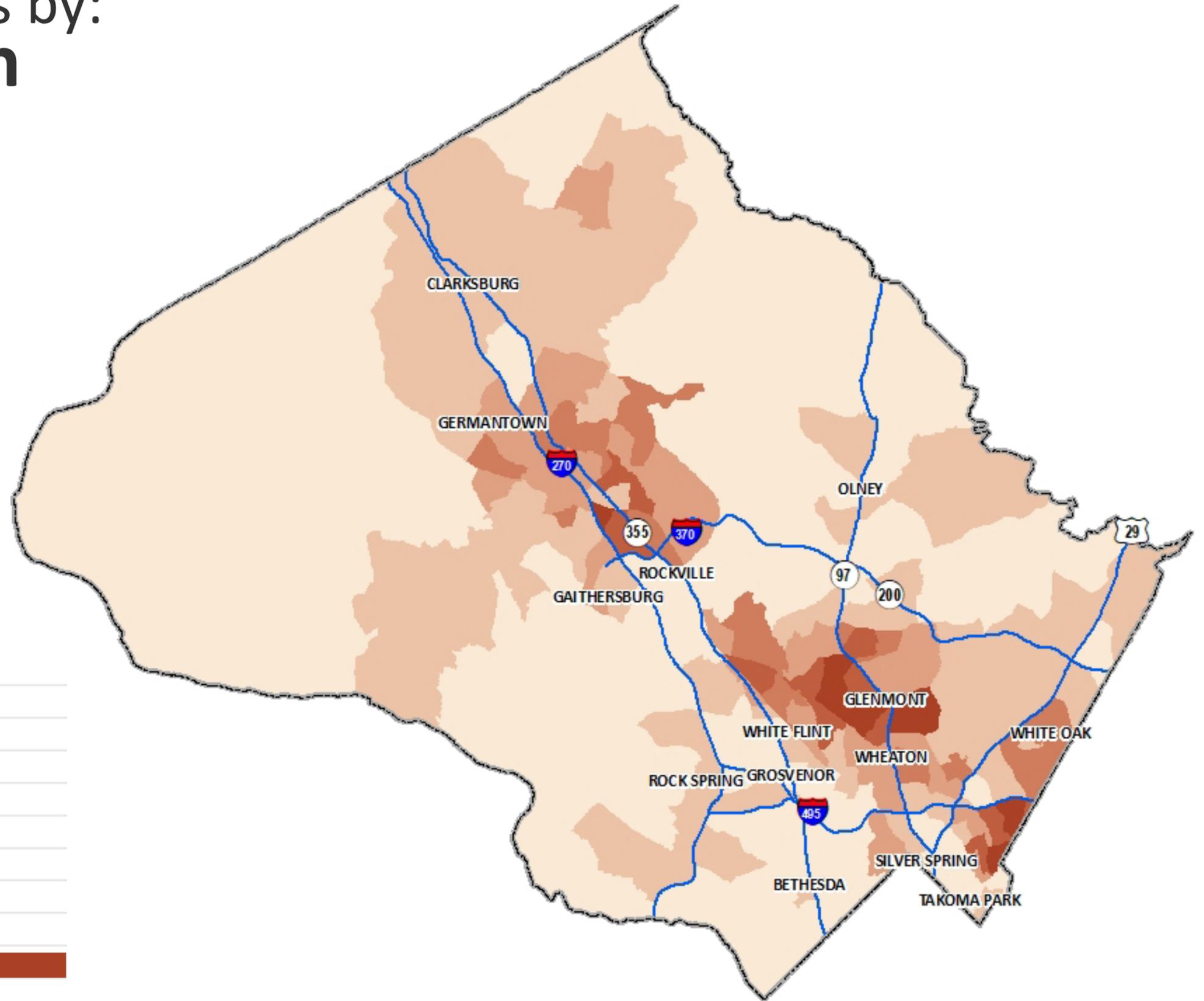
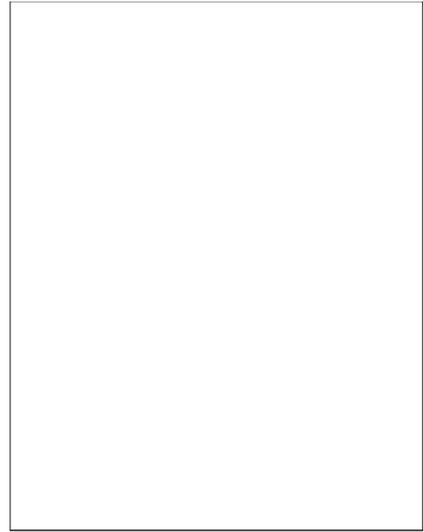
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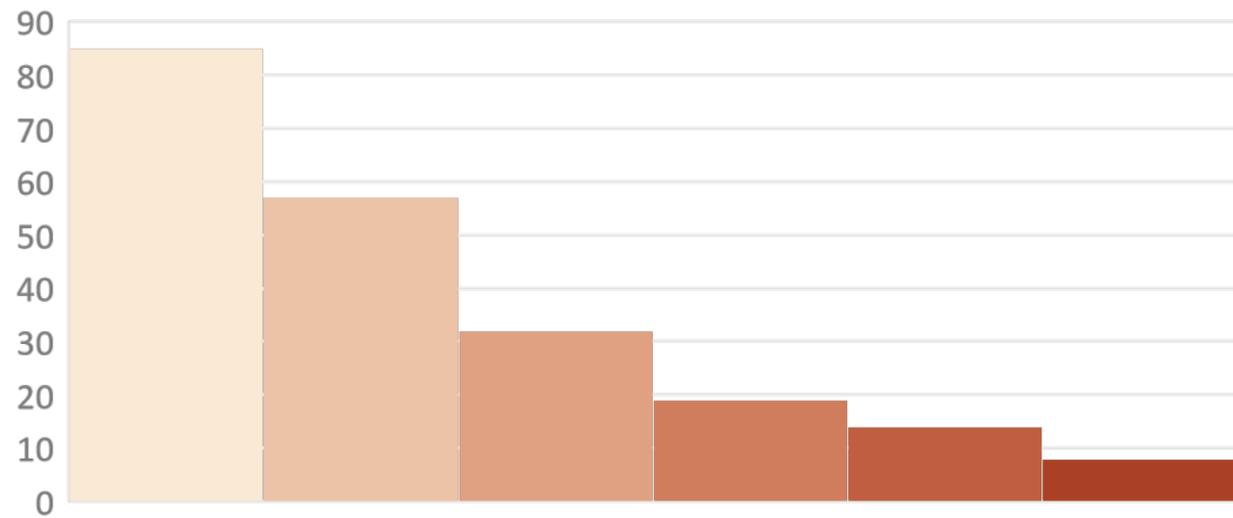
Student Generation Rate for Census Tracts by: **% Black Population (Non-Hispanic) and Housing Type**



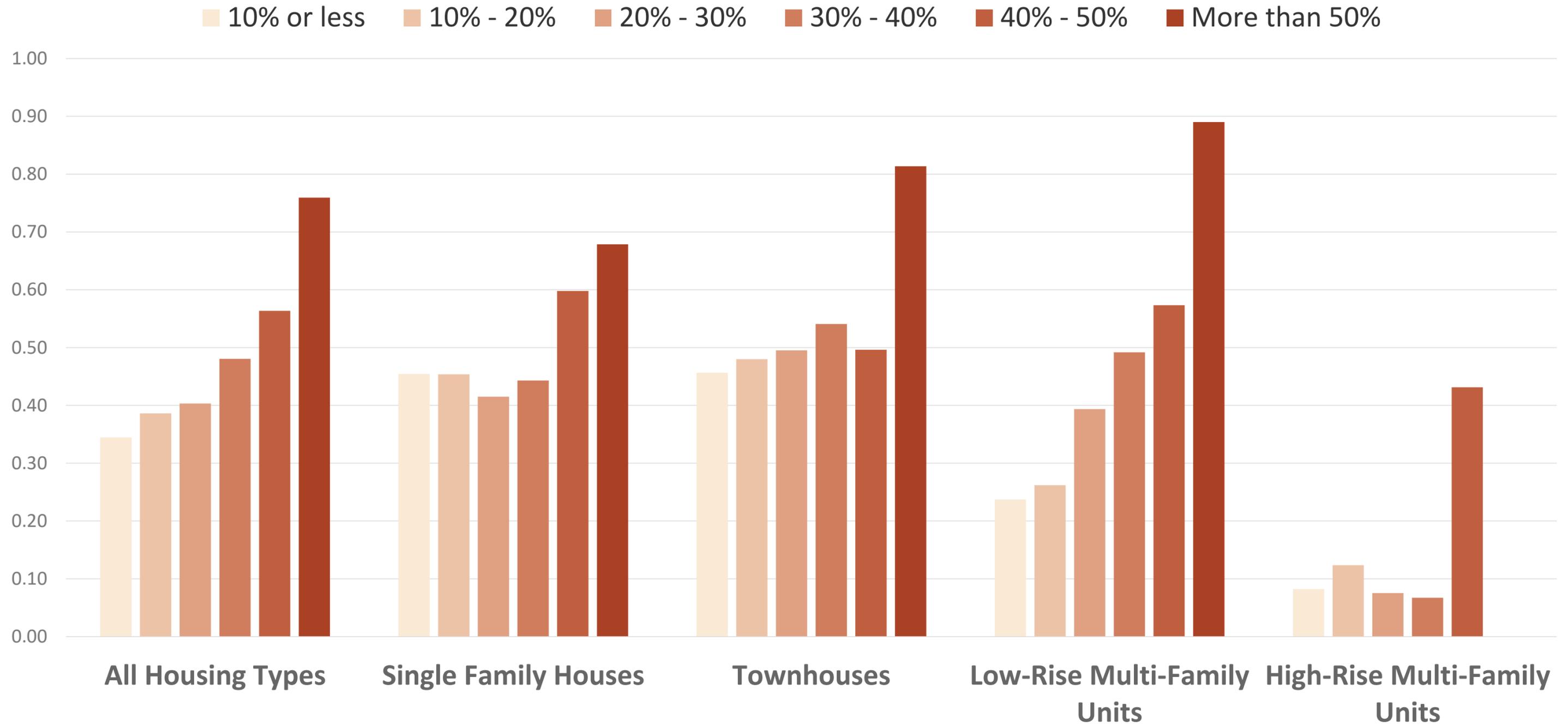
Distribution of Census Tracts by: % Hispanic Population



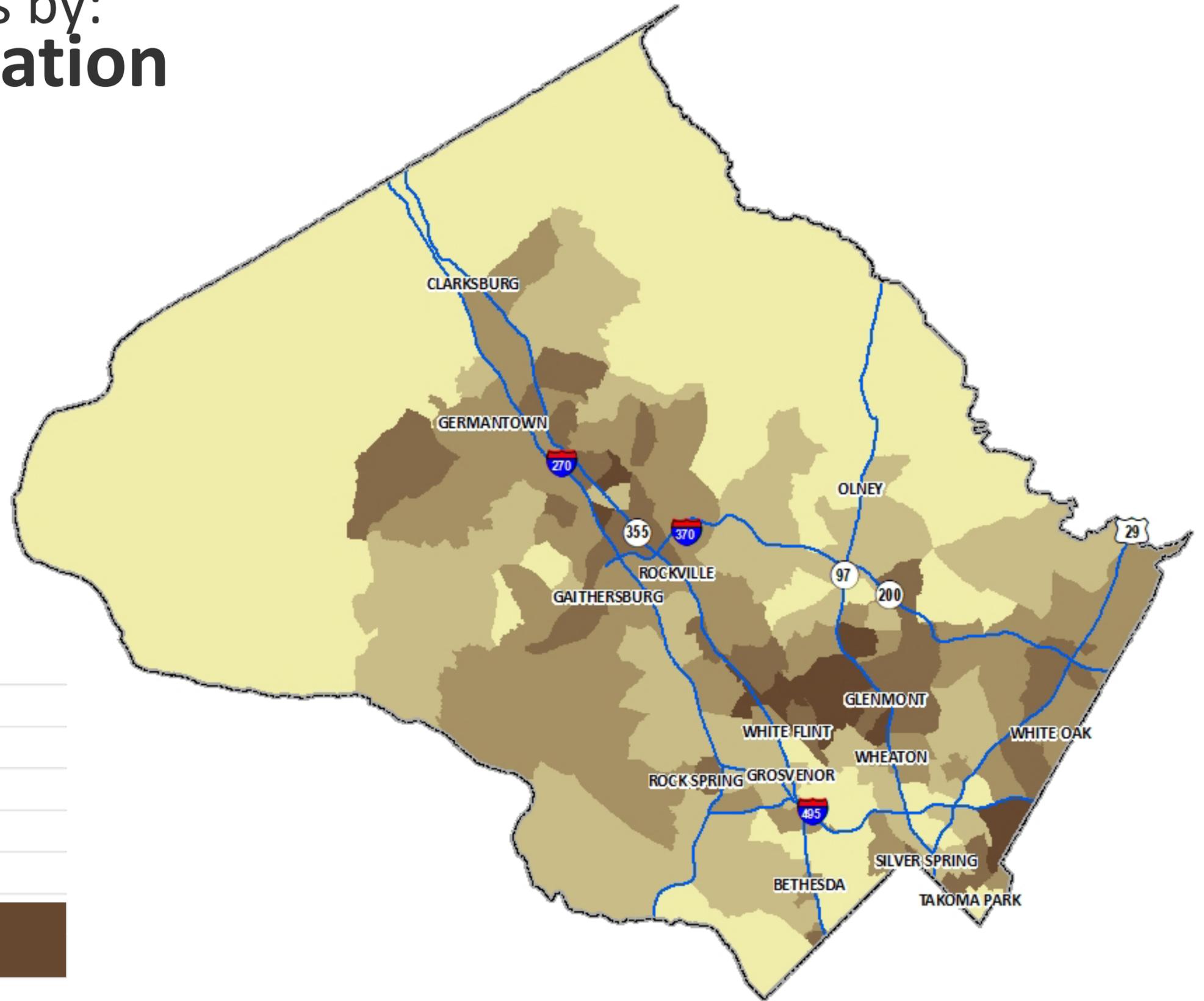
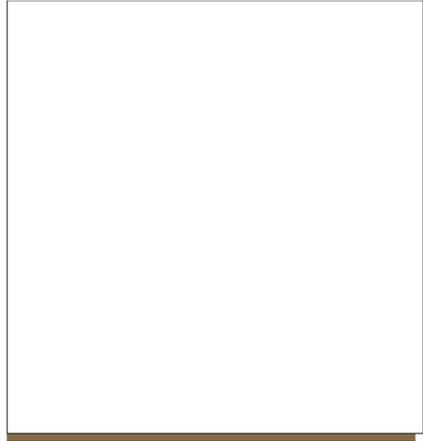
Count of Census Tracts



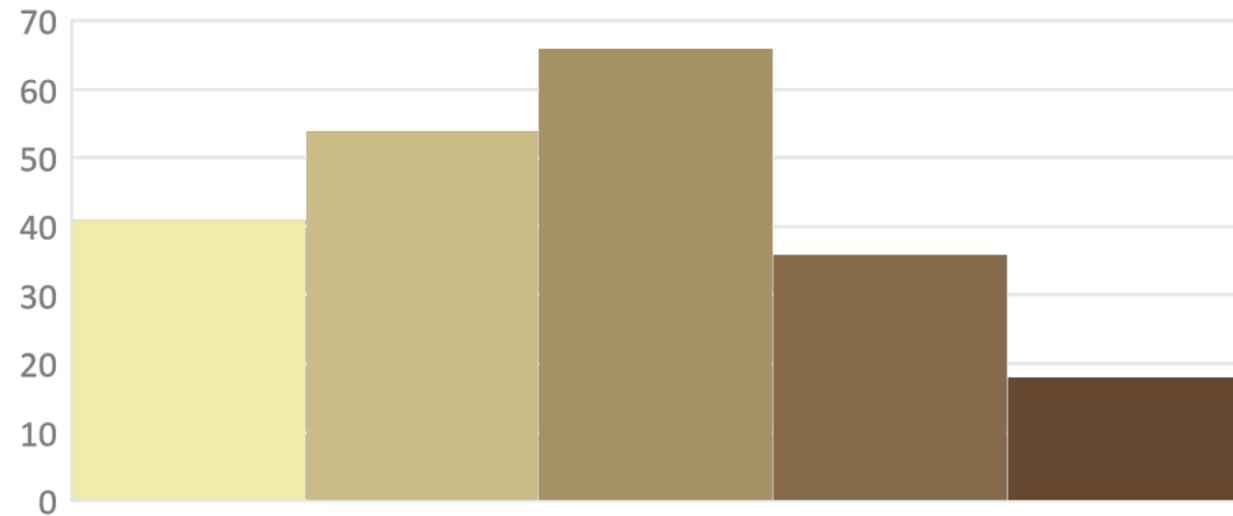
Student Generation Rate for Census Tracts by: % Hispanic Population and Housing Type



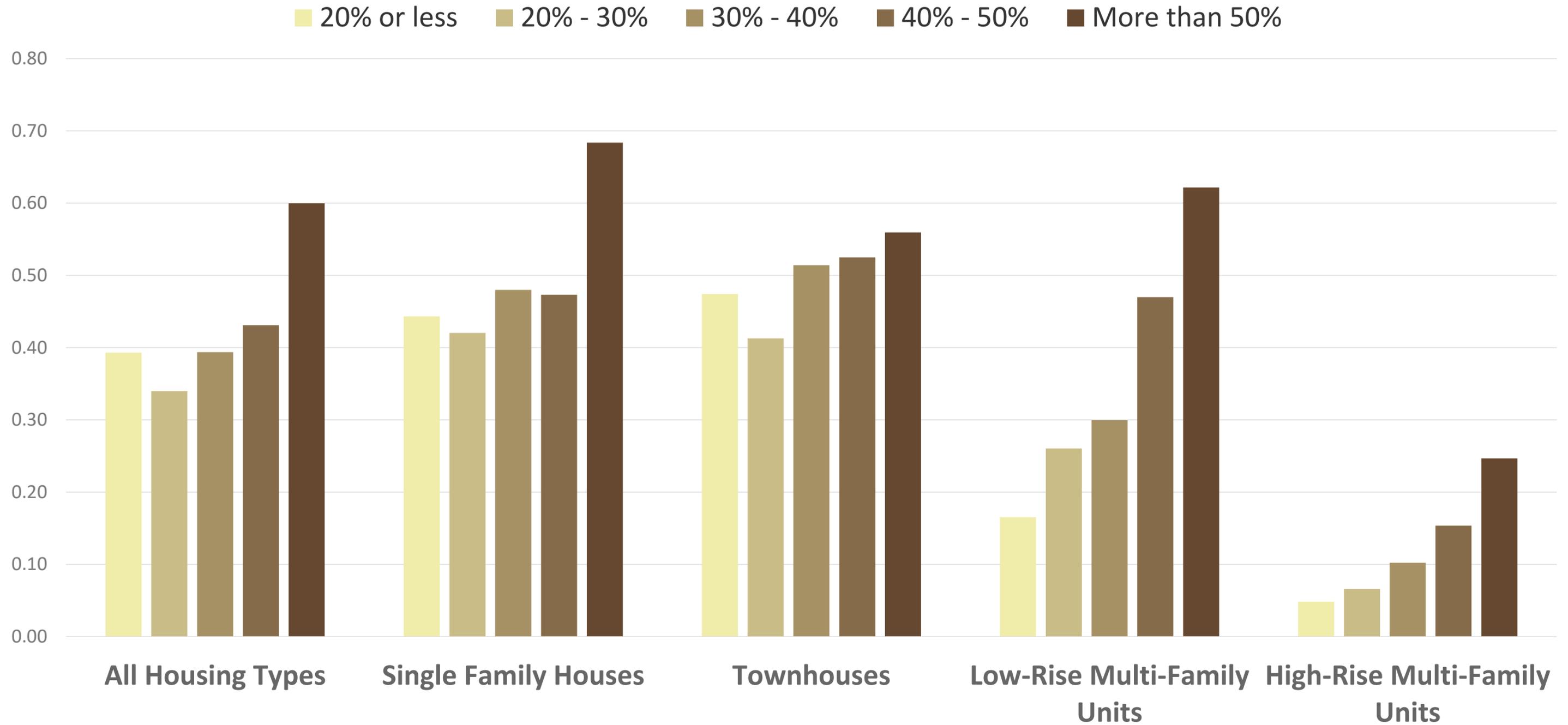
Distribution of Census Tracts by: % Foreign-Born Population



Count of Census Tracts



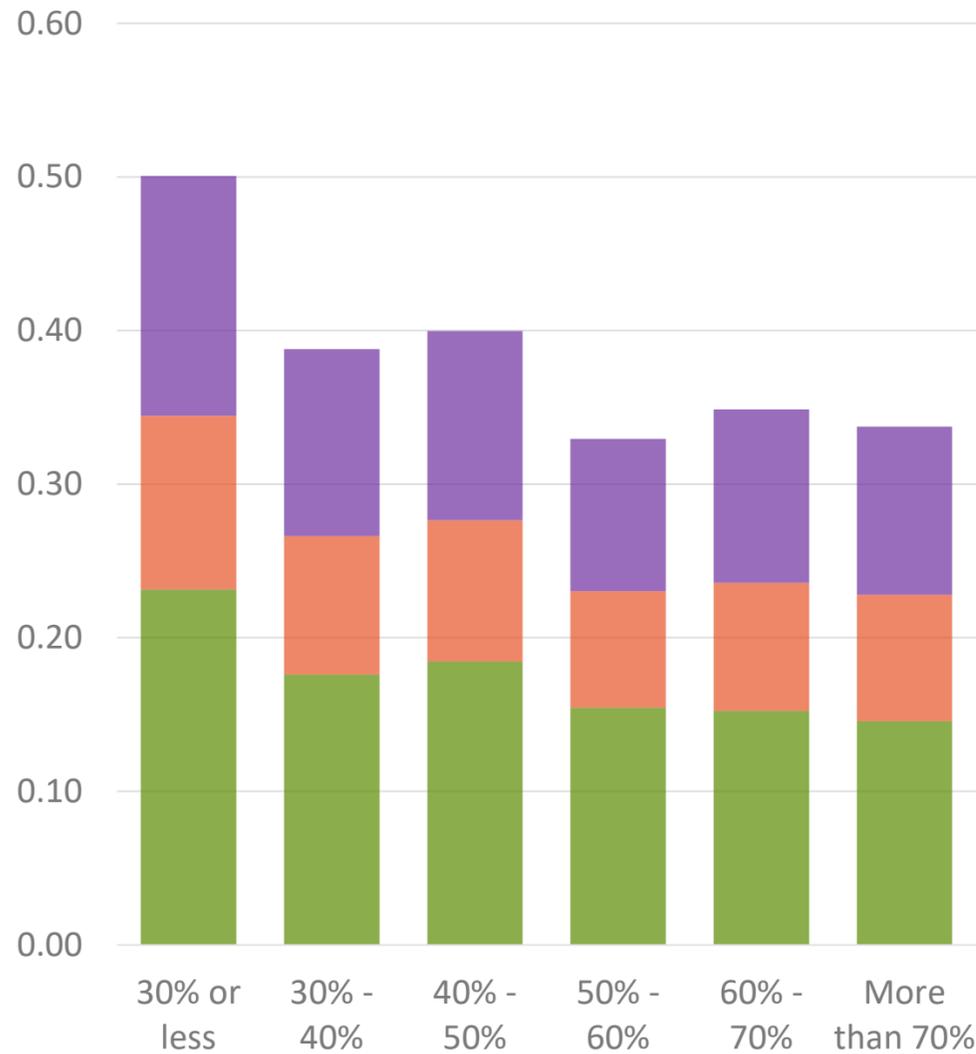
Student Generation Rate for Census Tracts by: % Foreign-Born Population and Housing Type



Student Generation Rate for Census Tract by: Demographic Characteristics and School Level

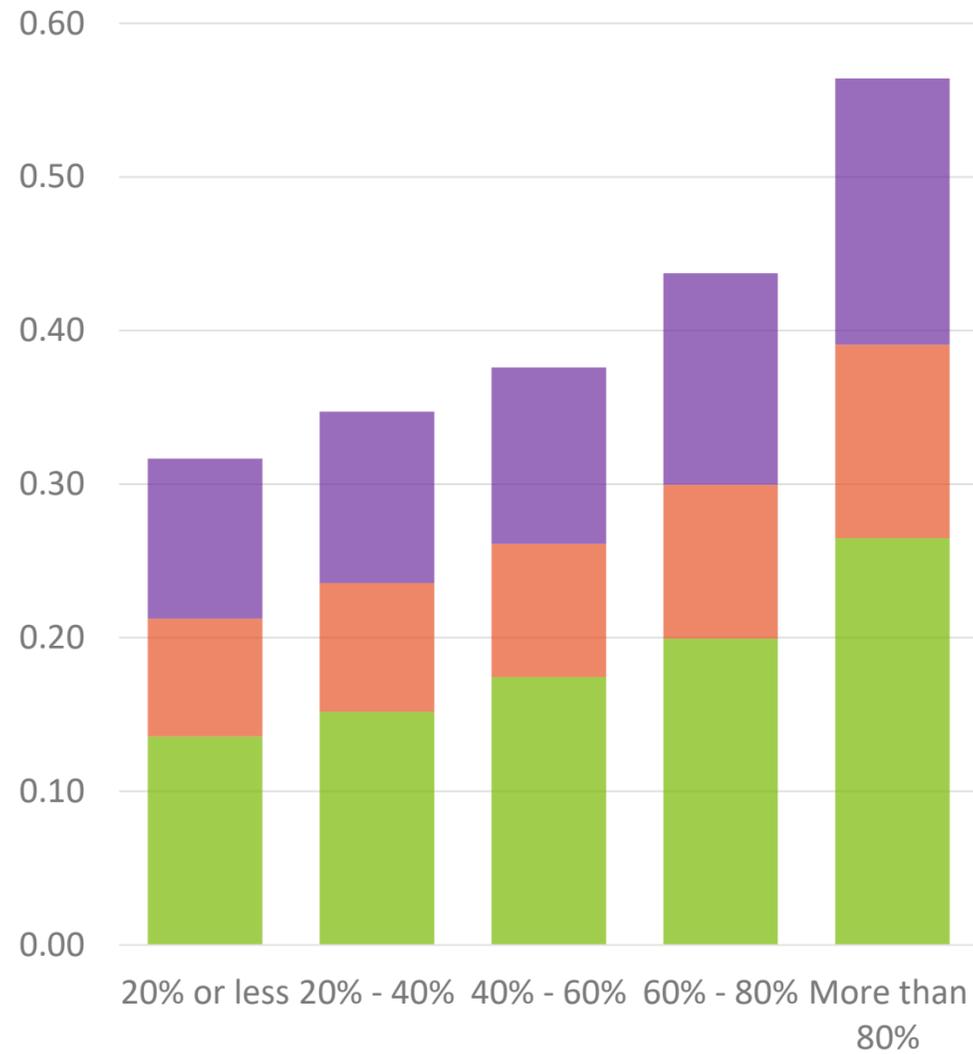
% White Population of Tract

ES MS HS



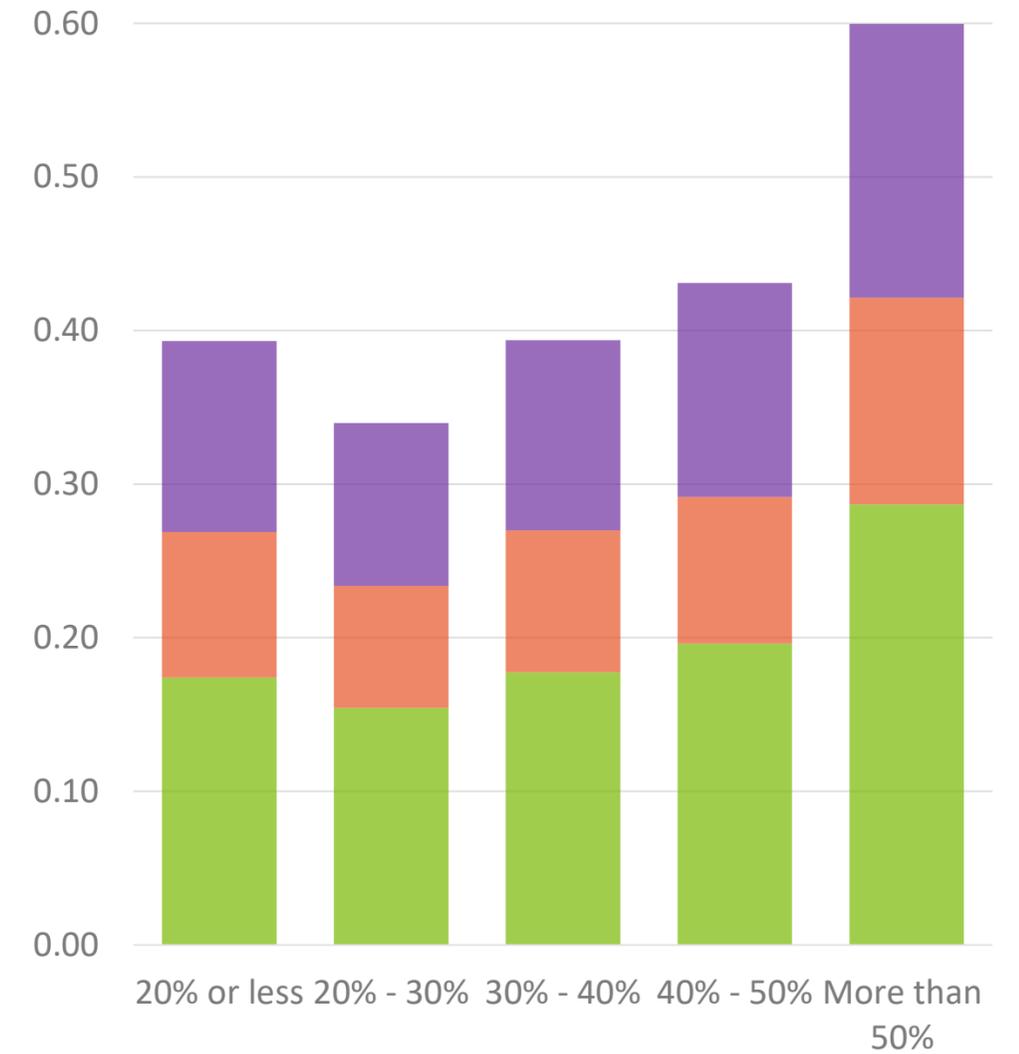
% People of Color of Tract

ES MS HS

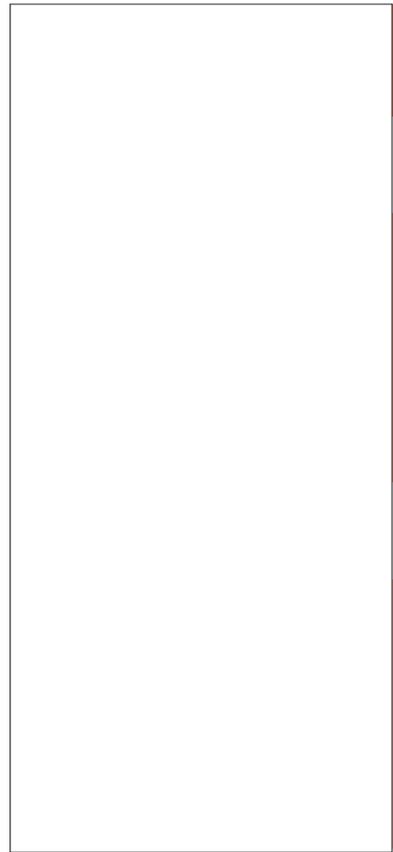


% Foreign Born of Tract

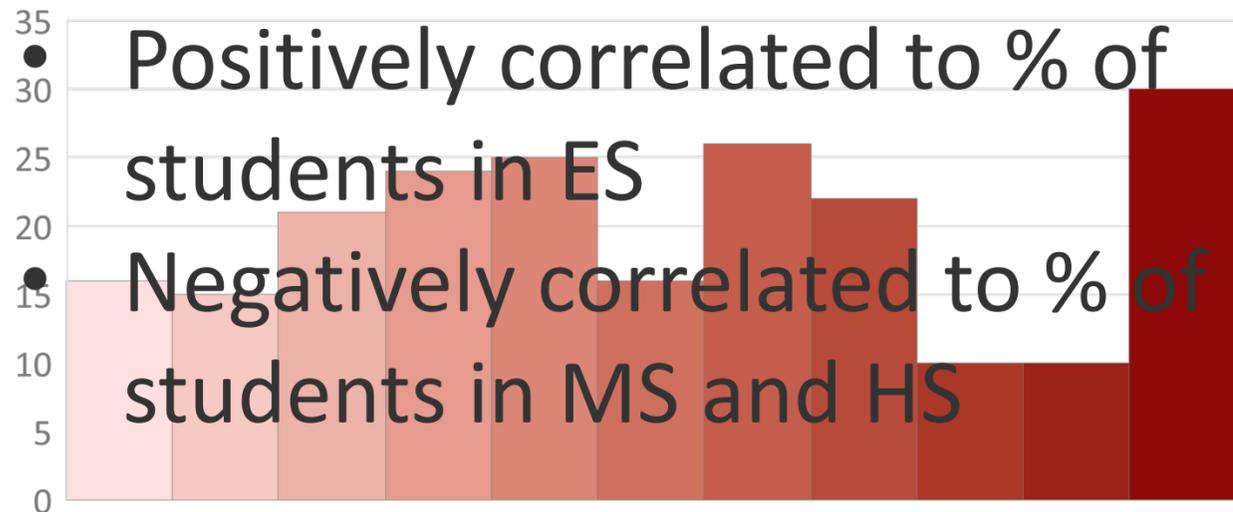
ES MS HS



Distribution of Census Tracts by: Population Density

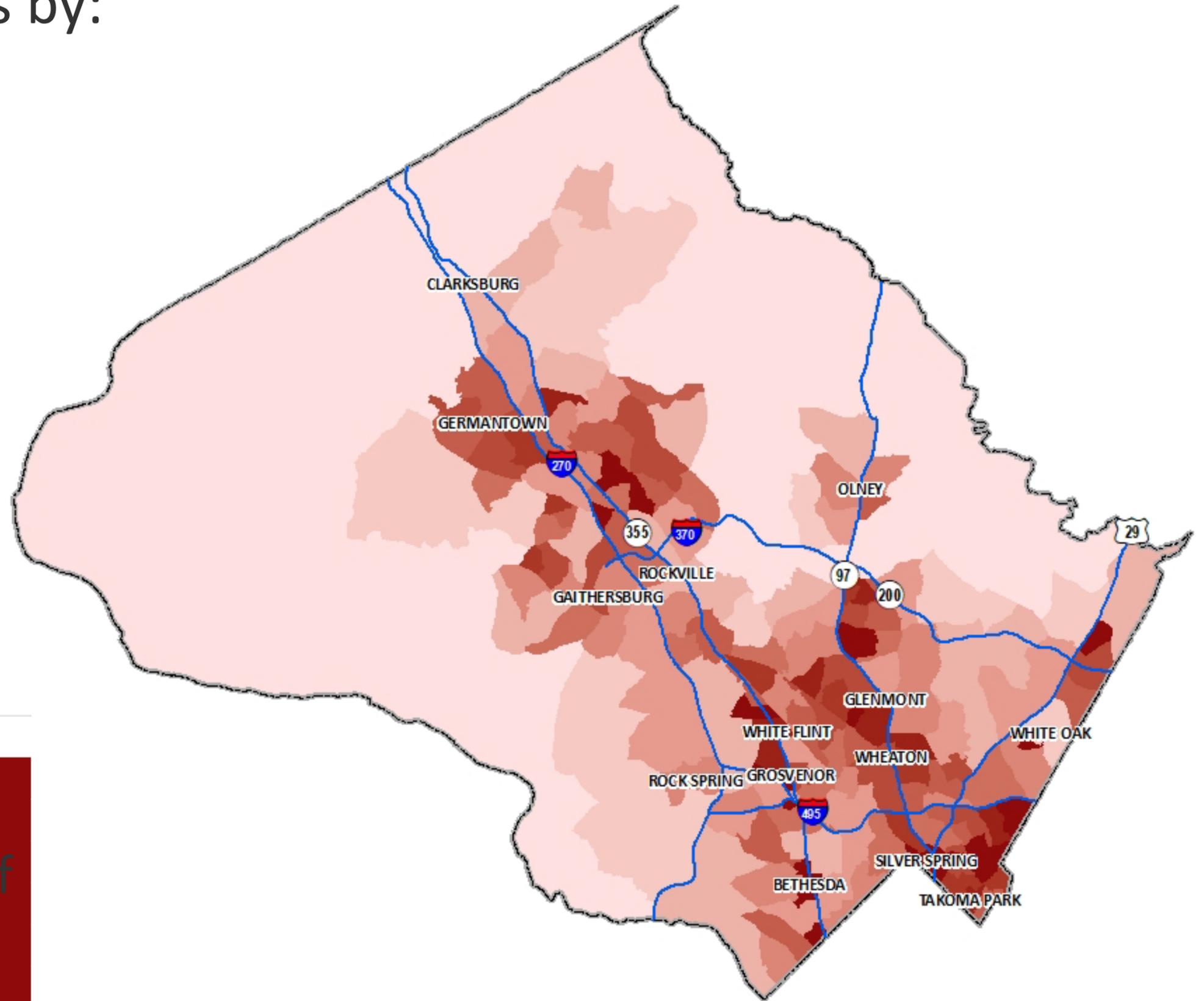


Count of Census Tracts

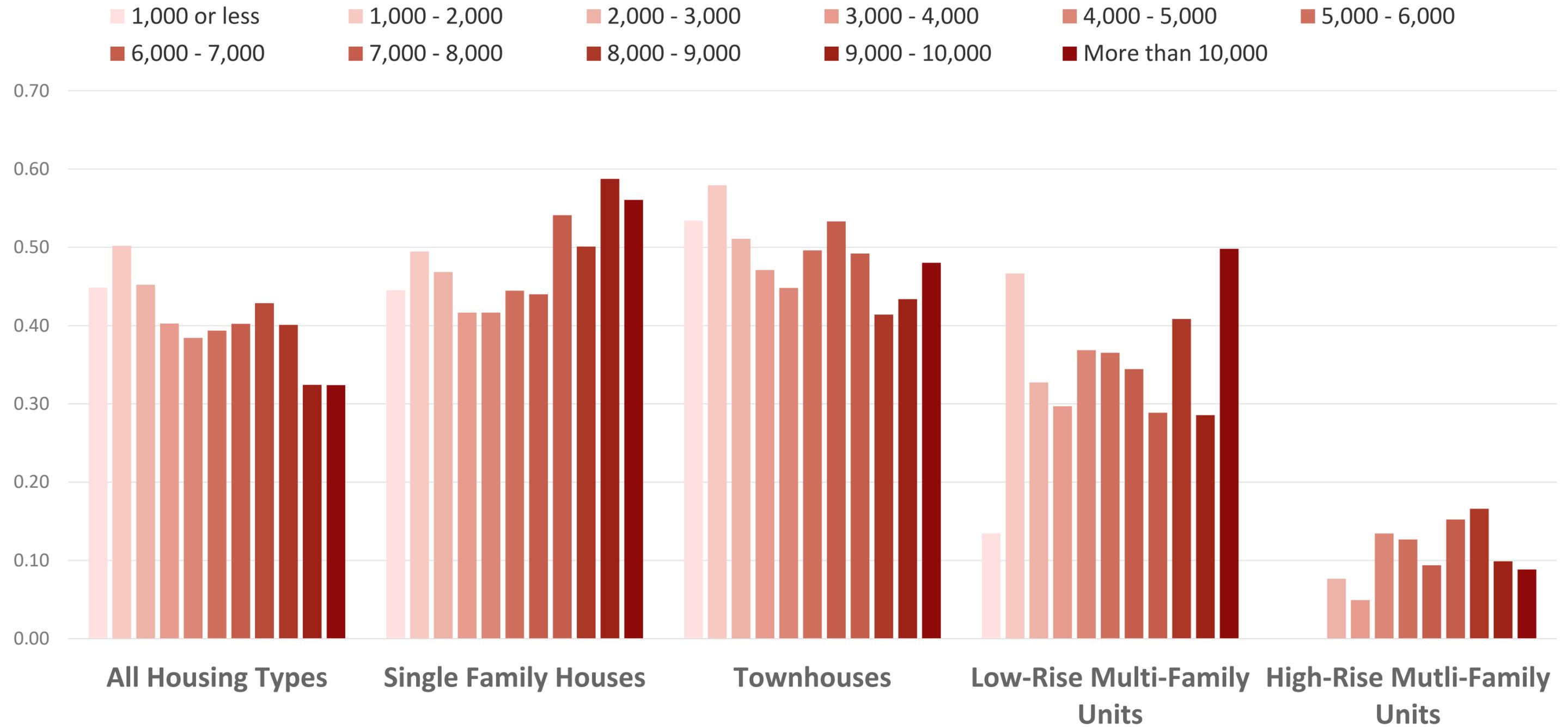


Positively correlated to % of students in ES

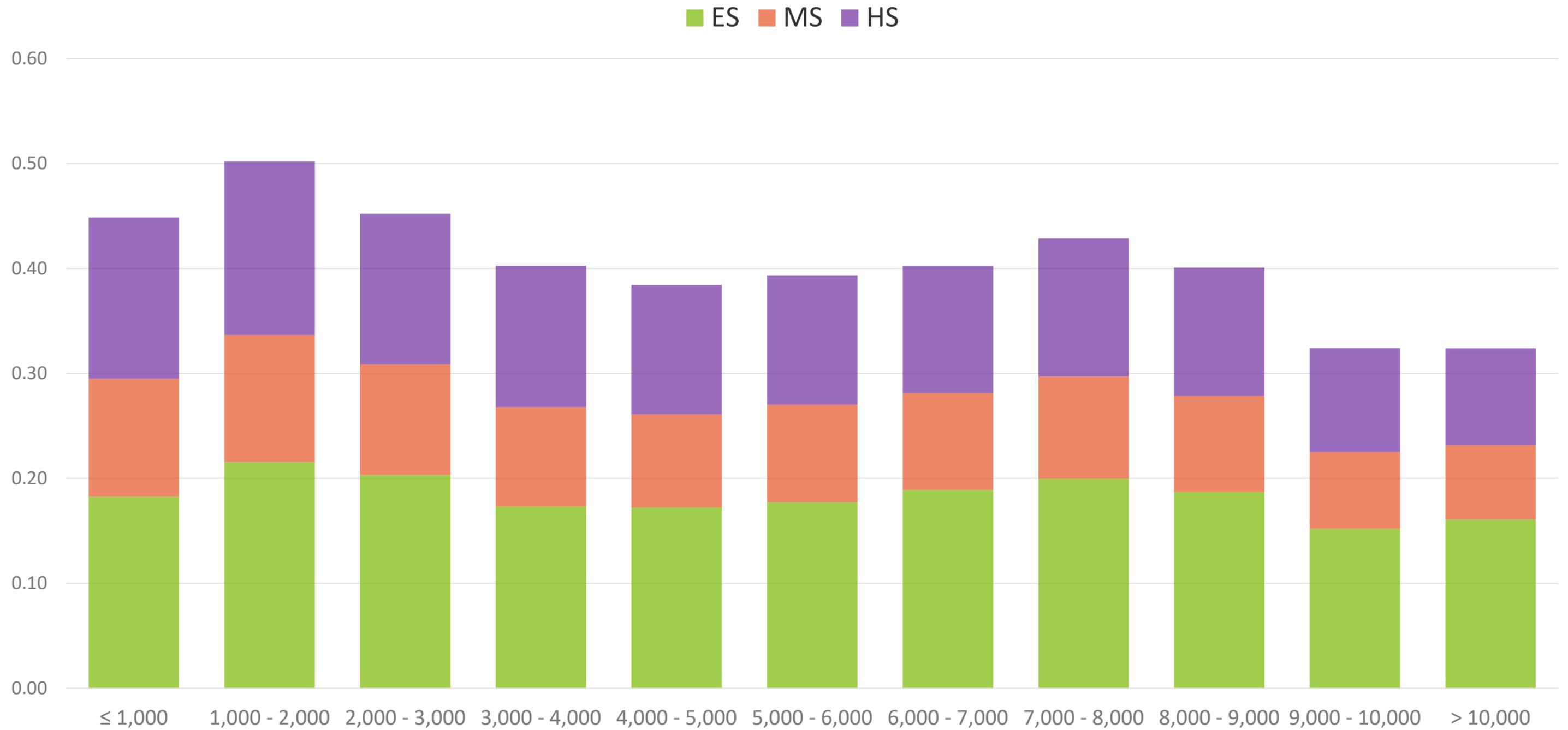
Negatively correlated to % of students in MS and HS



Student Generation Rate for Census Tracts by: Population Density and Housing Type

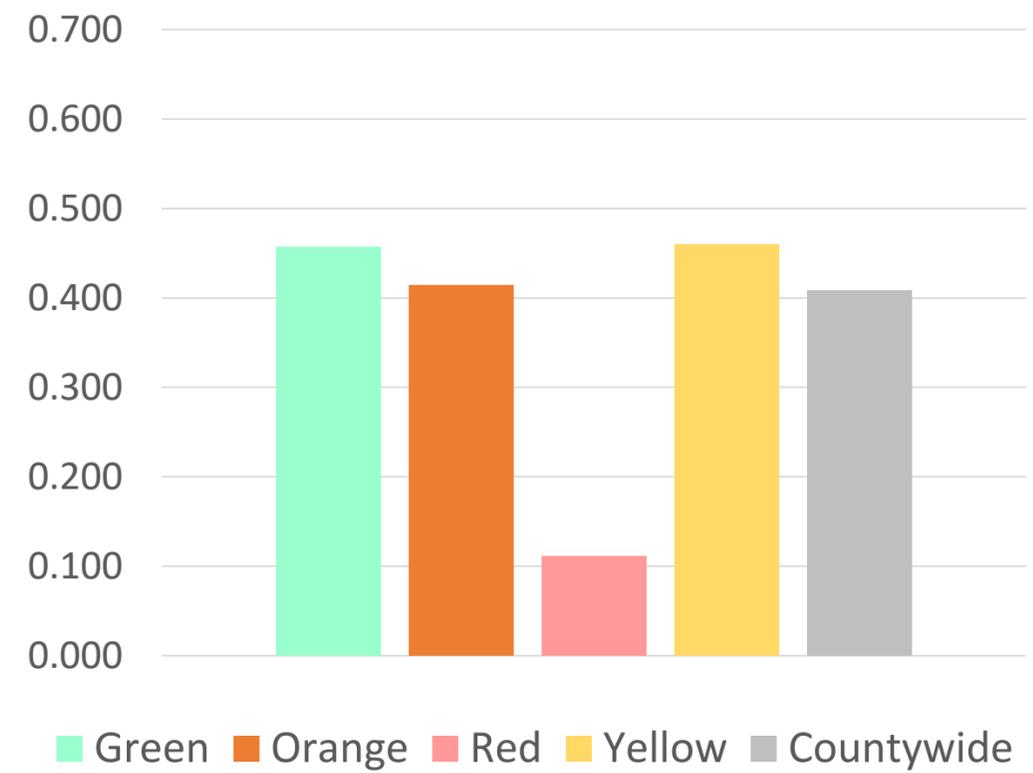
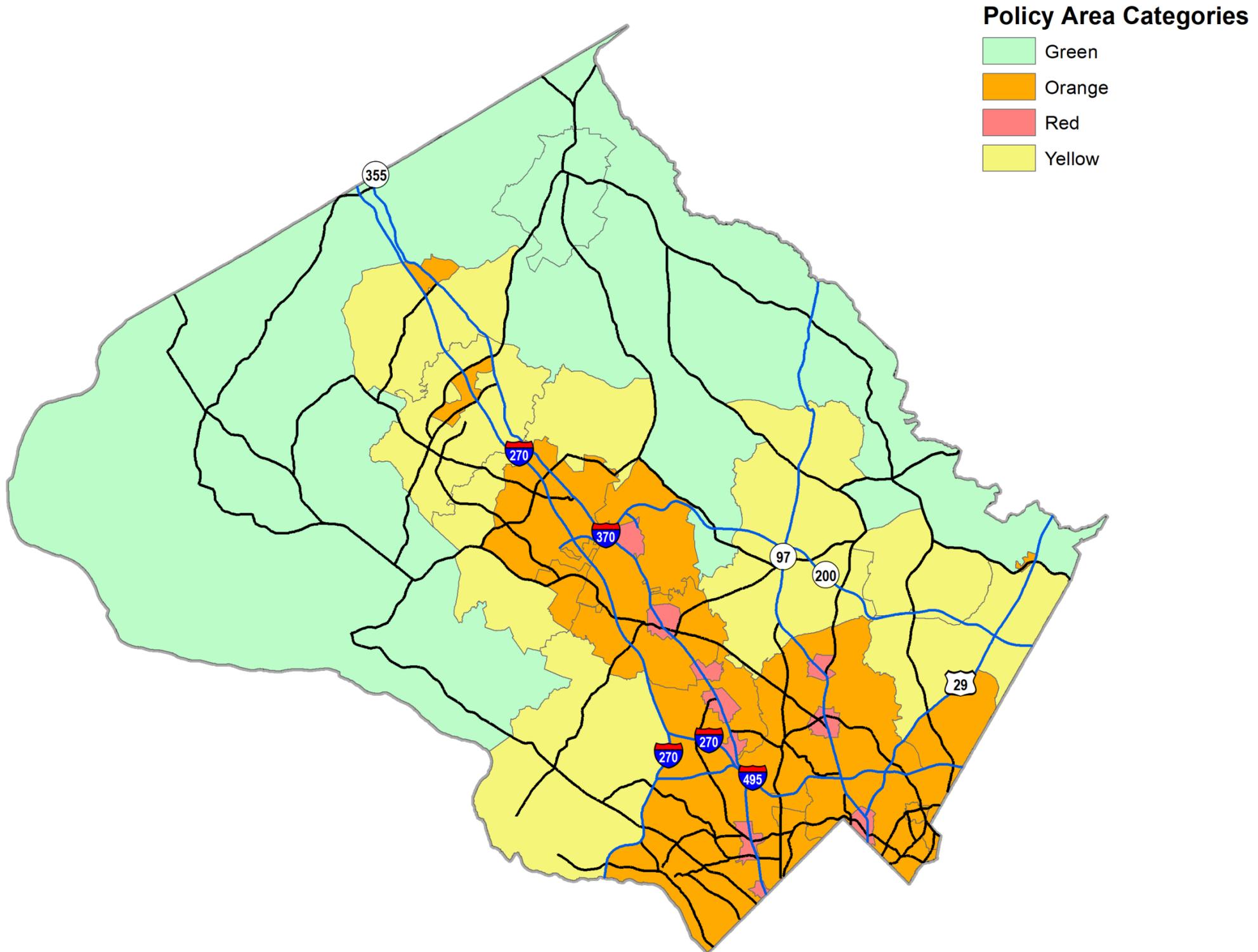


Student Generation Rate for Census Tracts by: **Population Density and School Level**

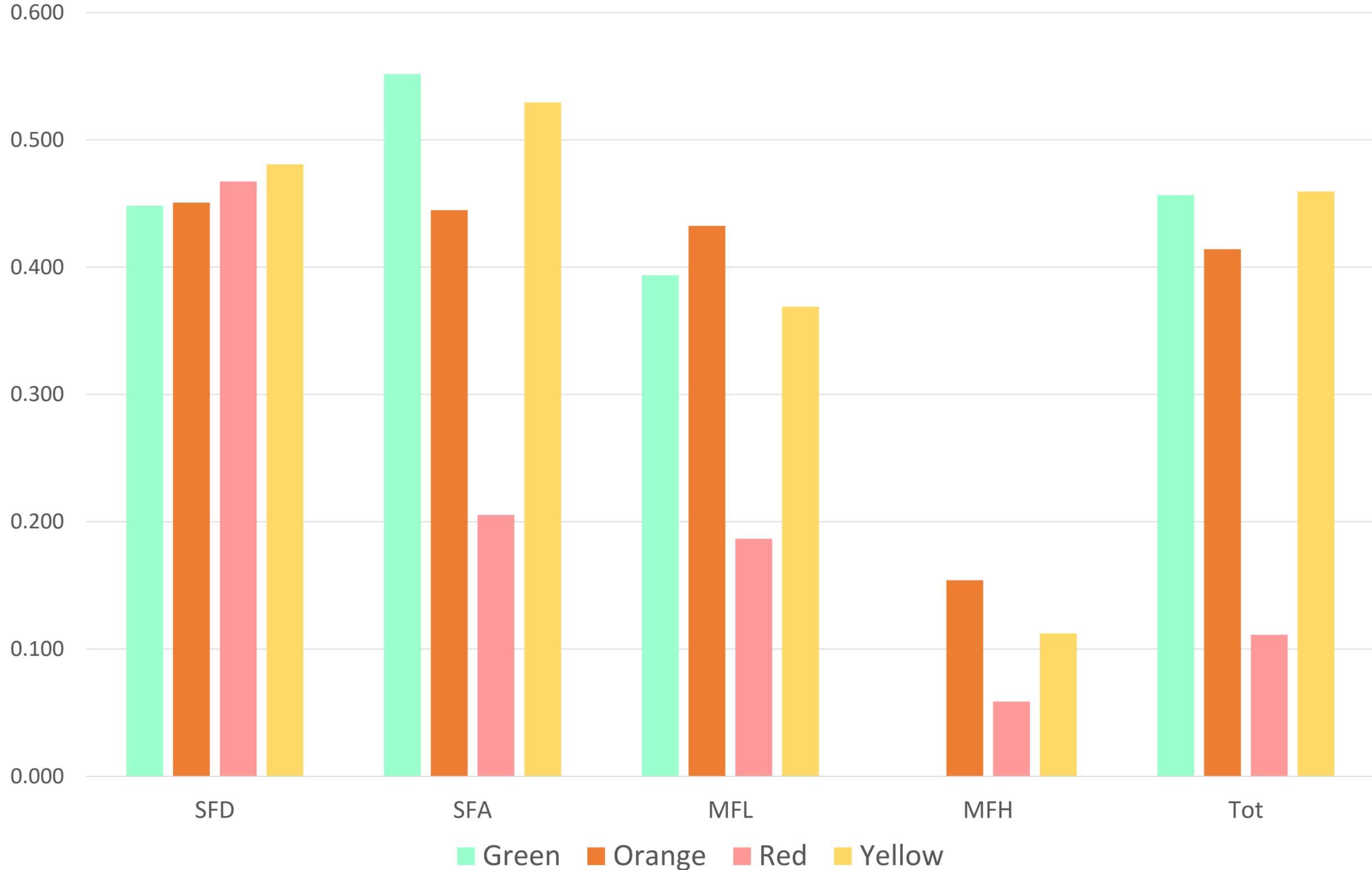


Alternative SGRs: Location-Based Rates

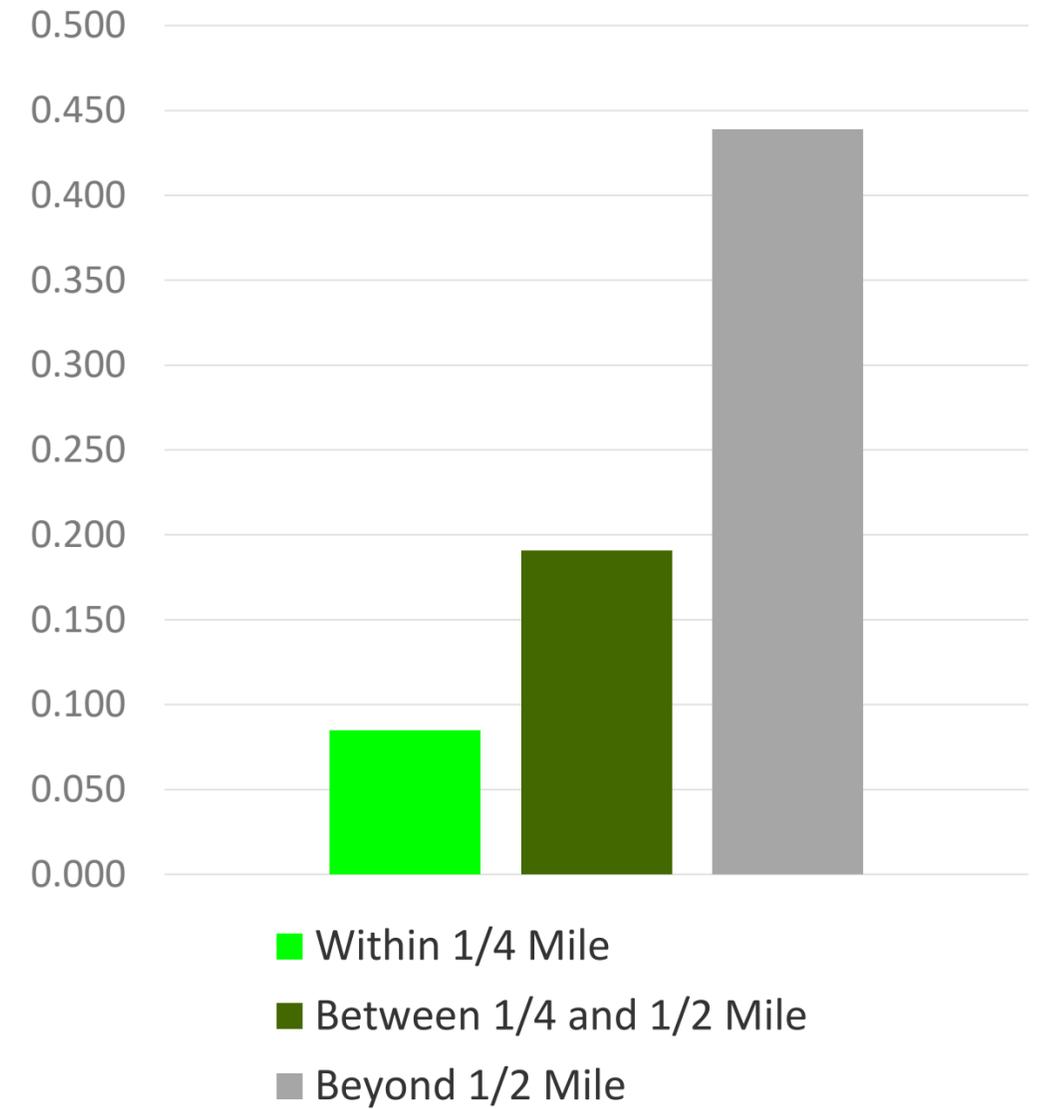
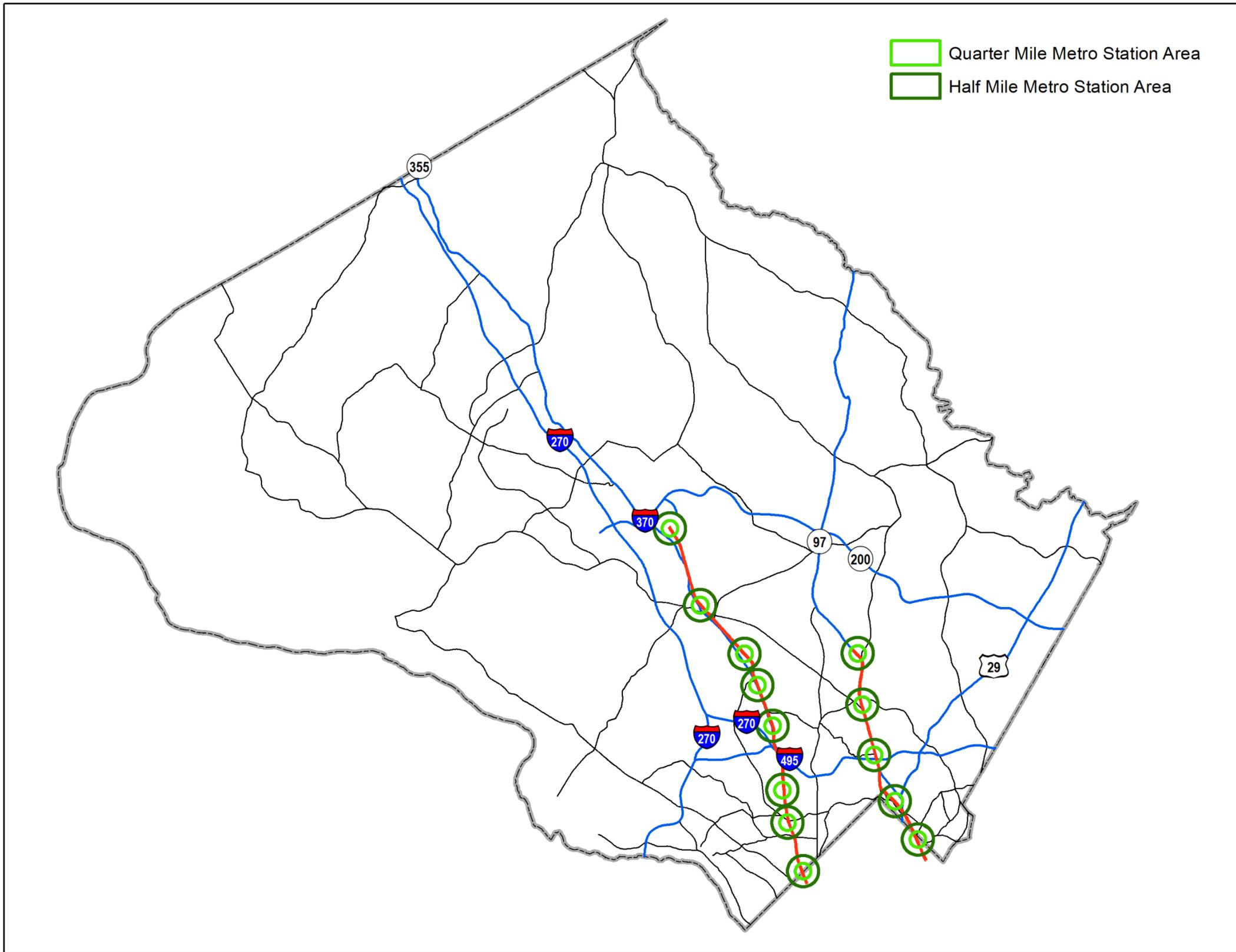
Student Generation Rate by: Transportation Policy Area Categories



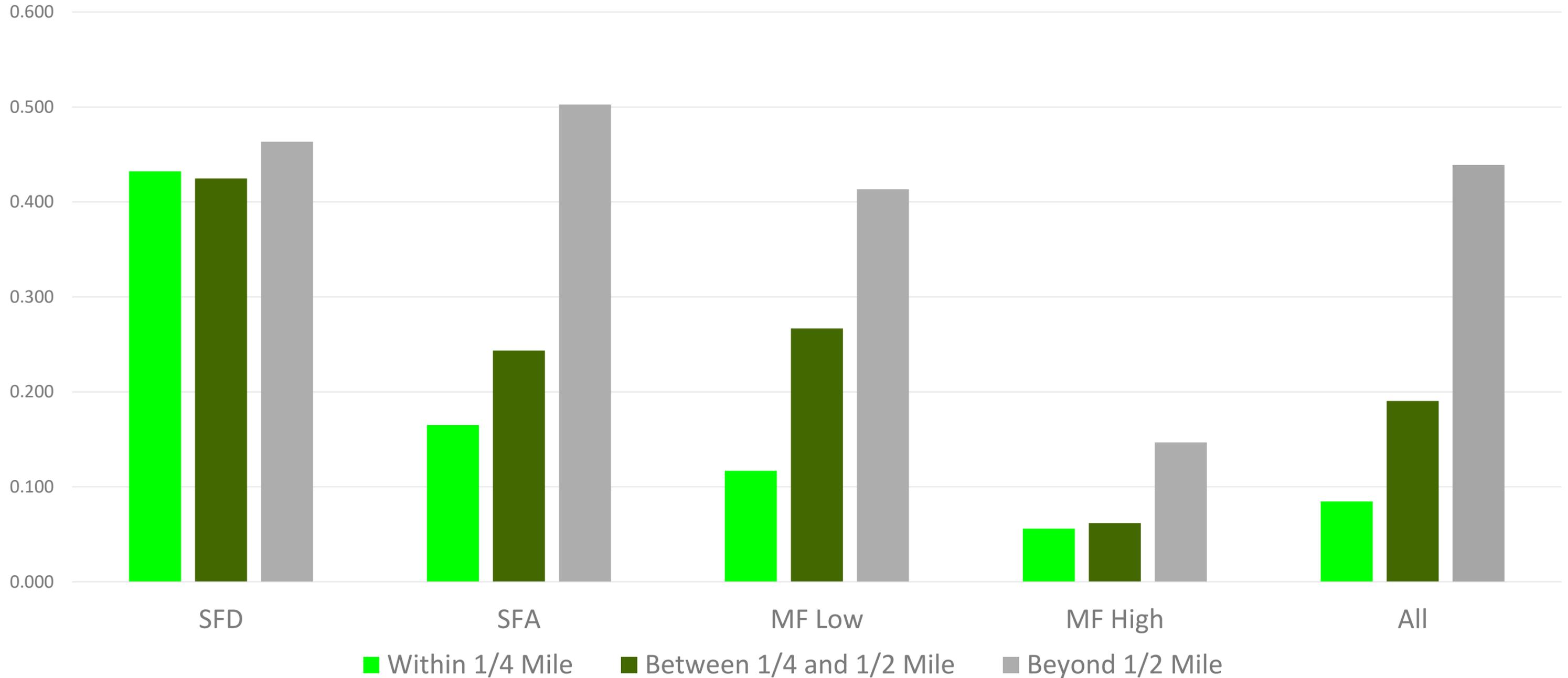
Student Generation Rate by: Transportation Policy Area Categories



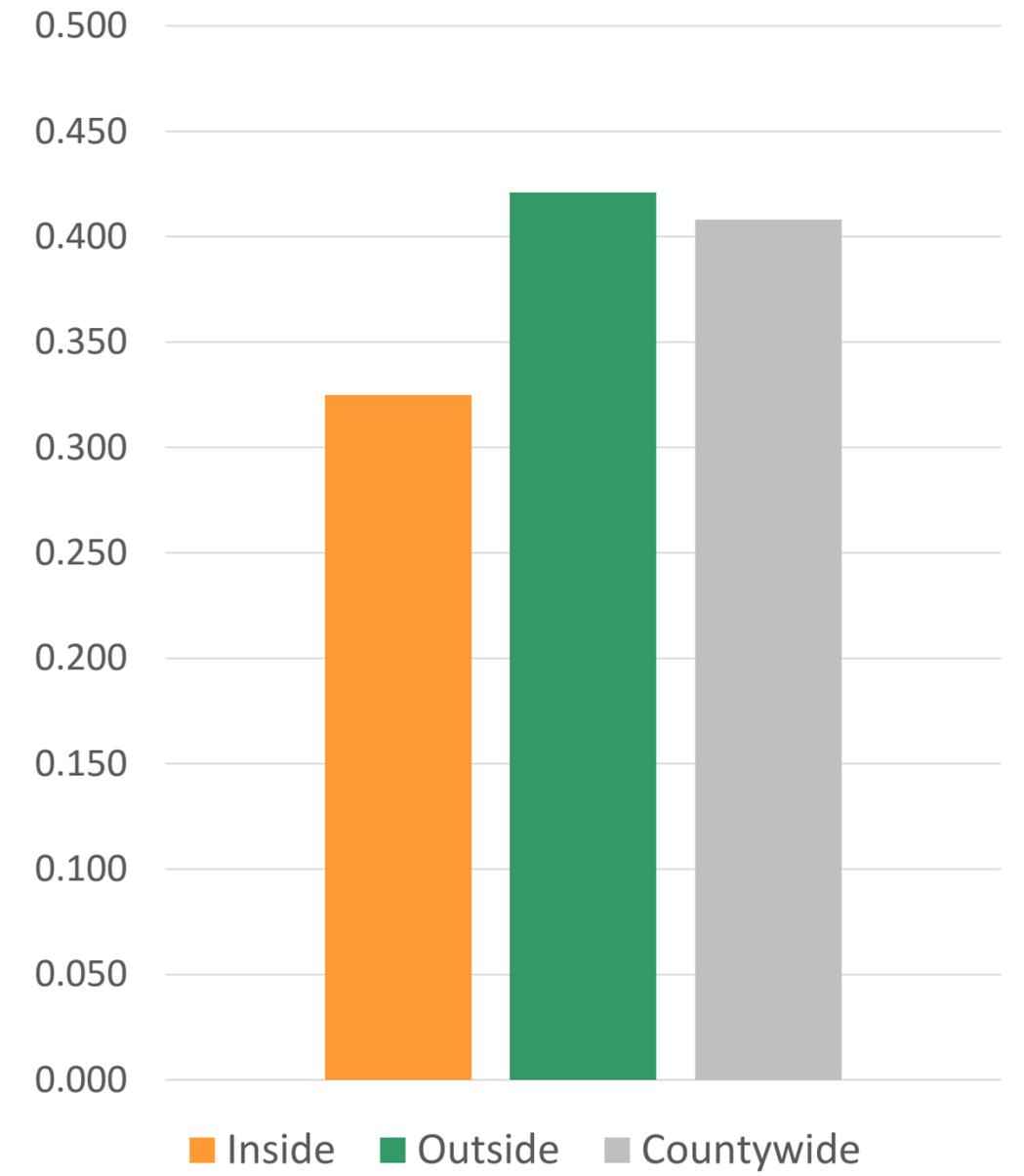
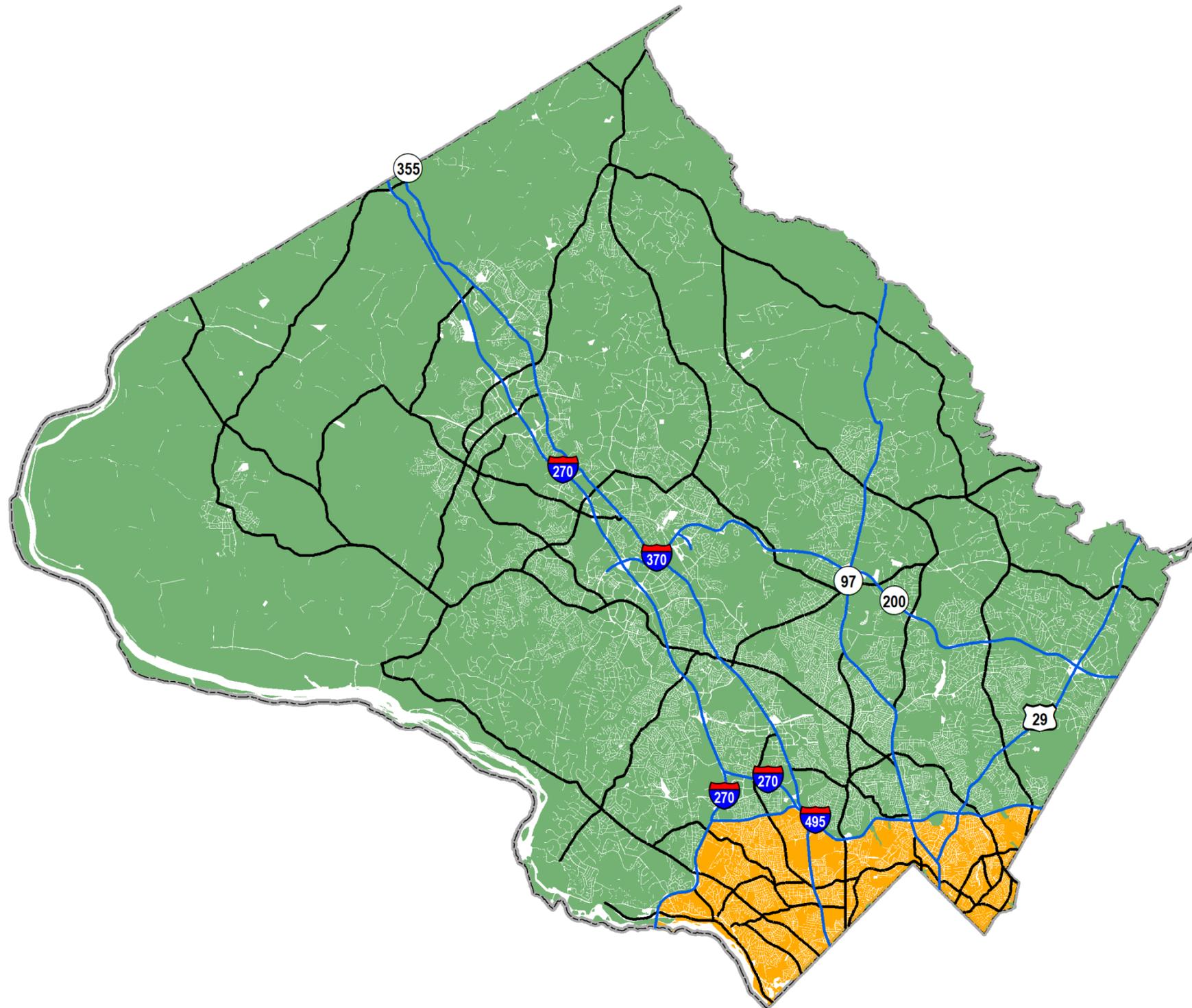
Student Generation Rate by: Distance to Metro Stations



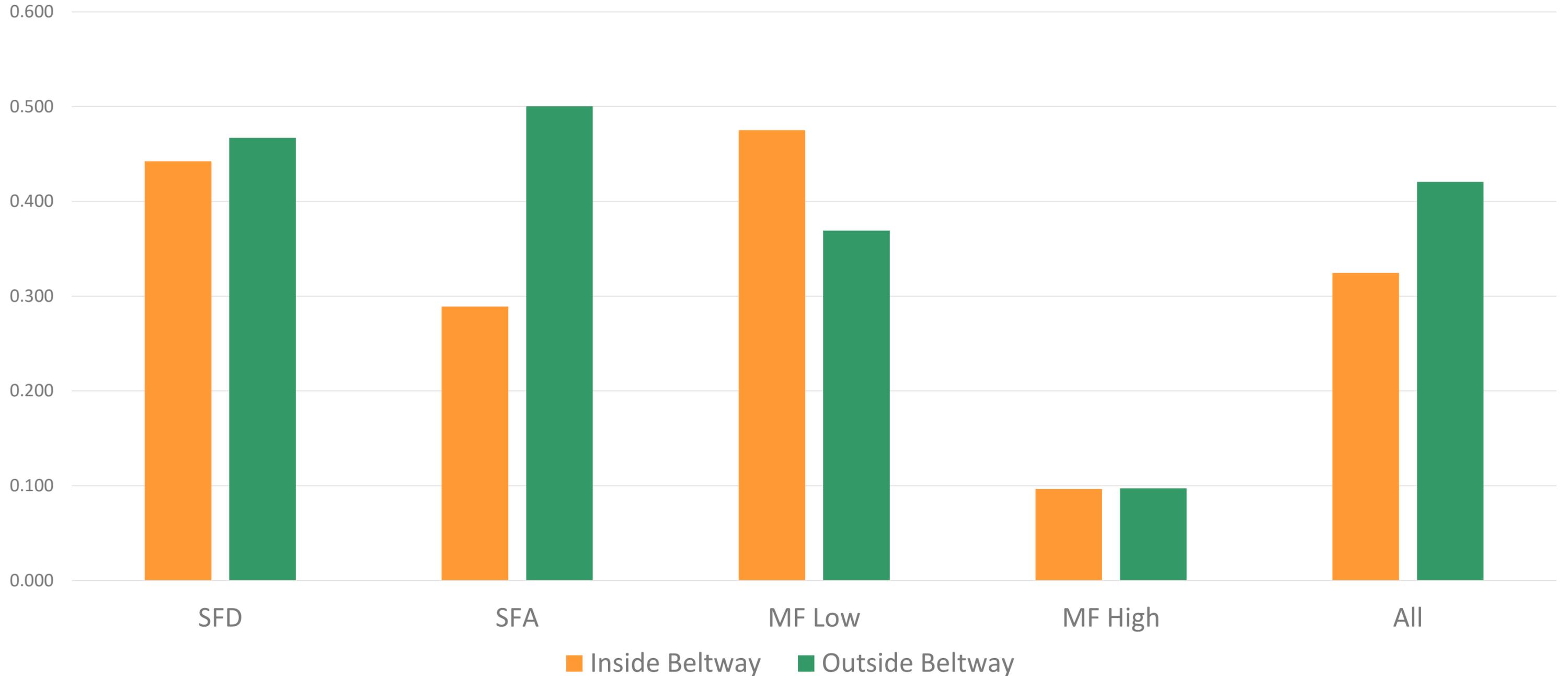
Student Generation Rate by: Distance to Metro Stations



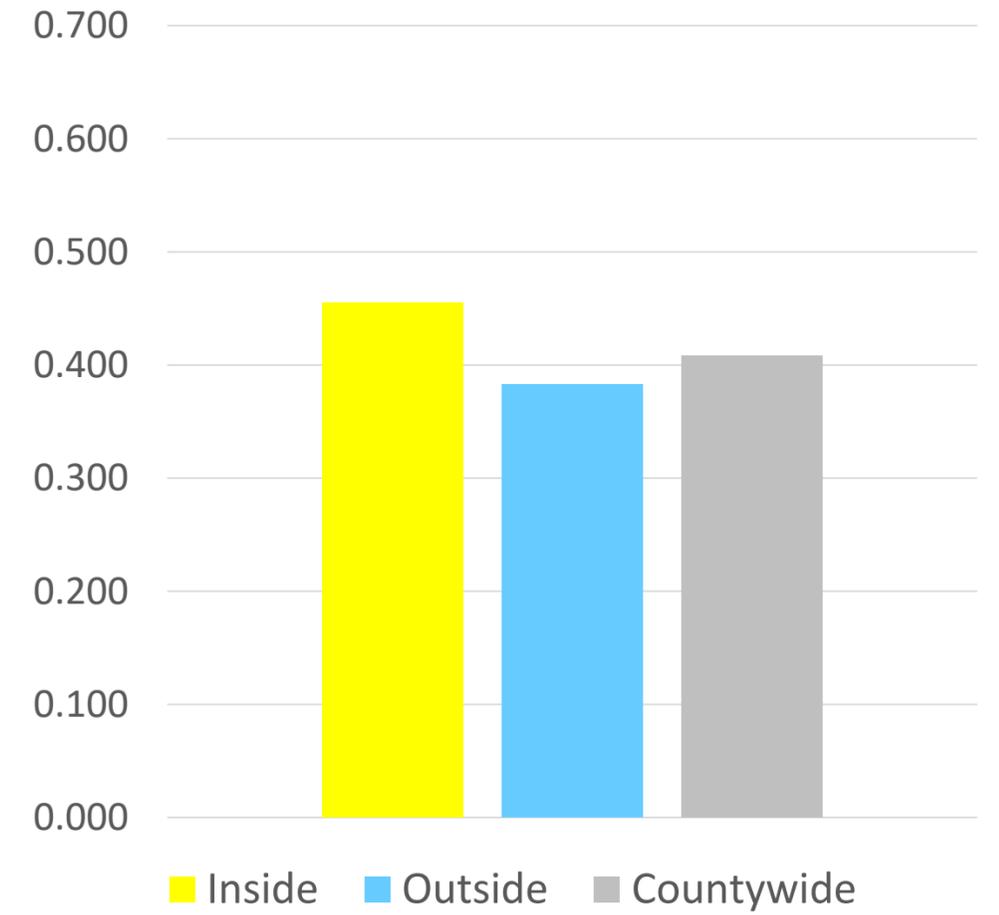
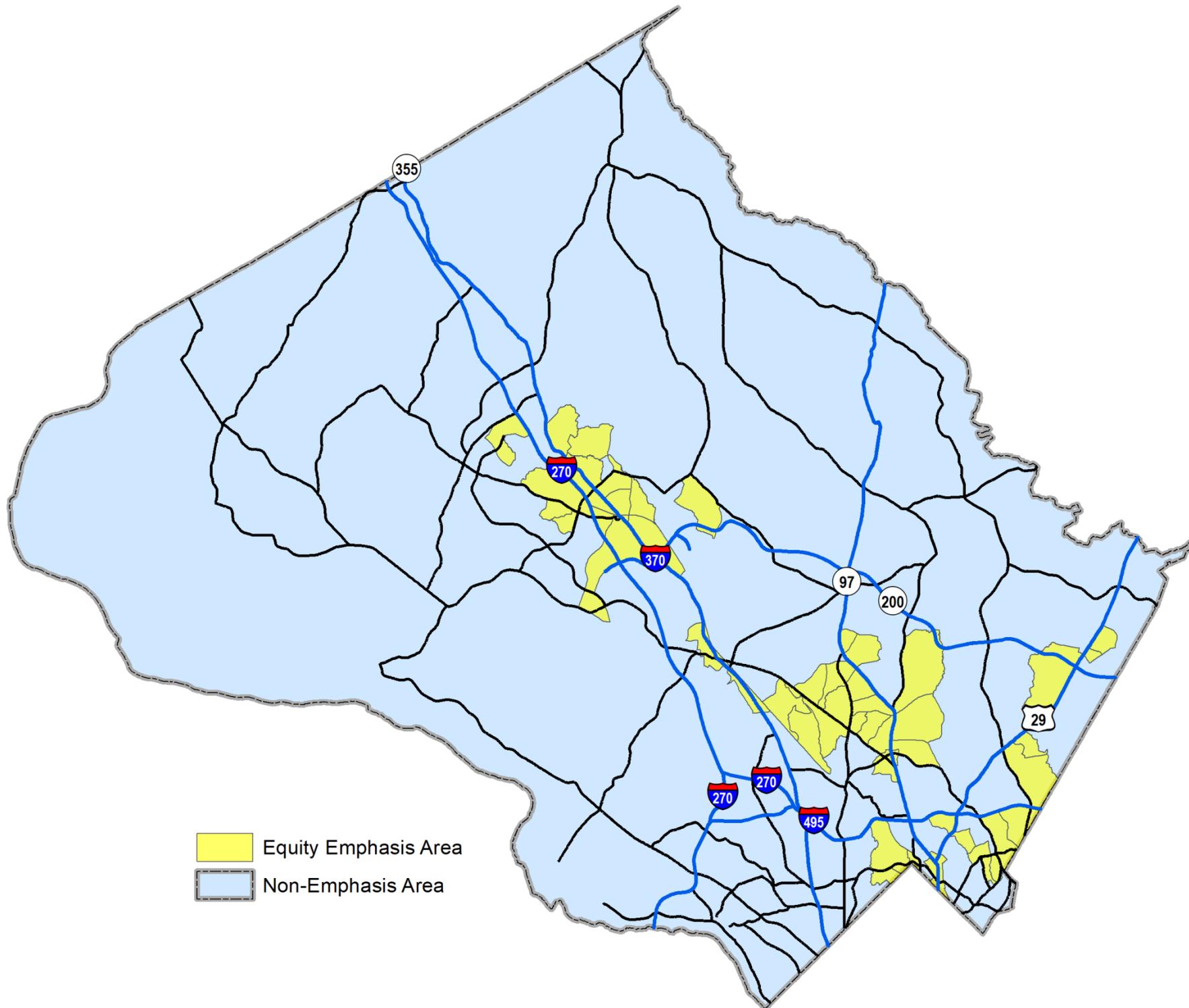
Student Generation Rate by: Inside/Outside the Beltway



Student Generation Rate by: Inside/Outside the Beltway

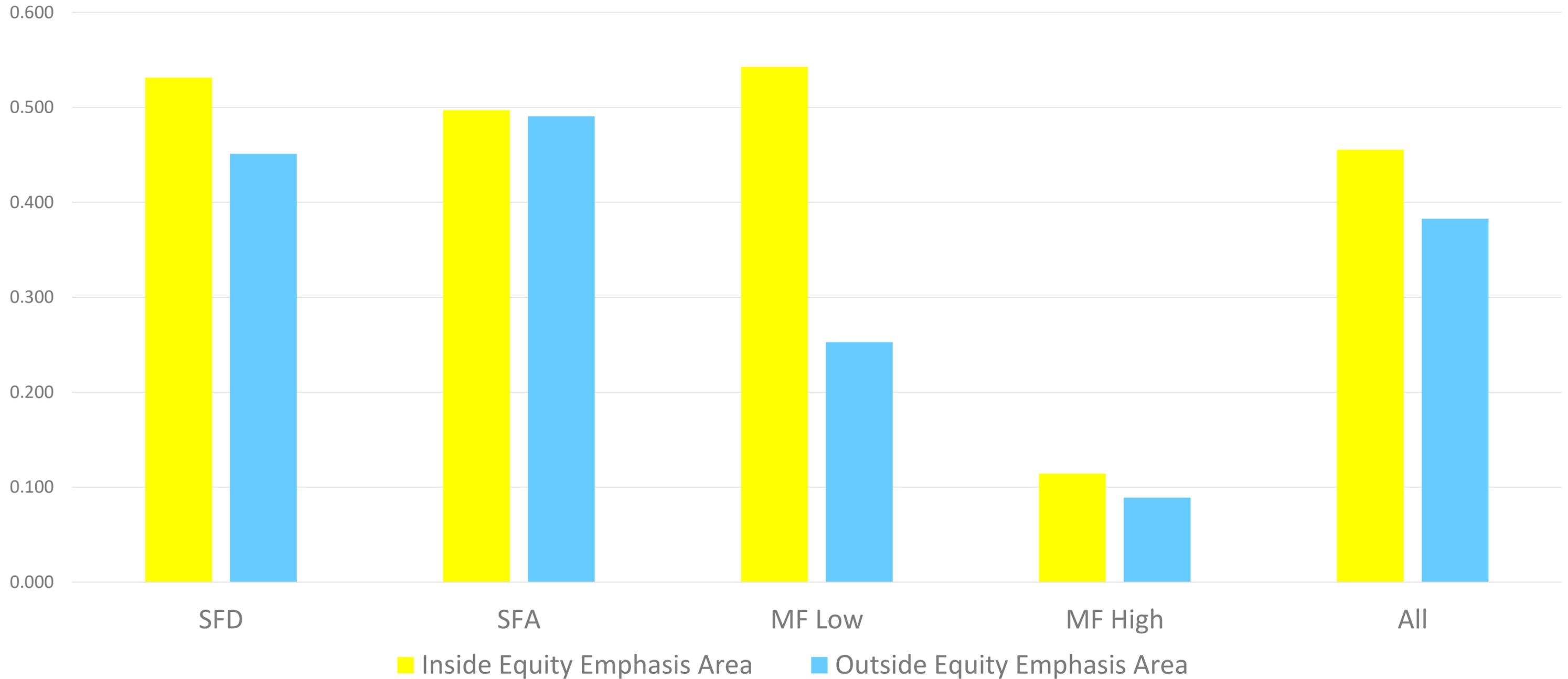


Student Generation Rate by: Inside/Outside Equity Emphasis Areas

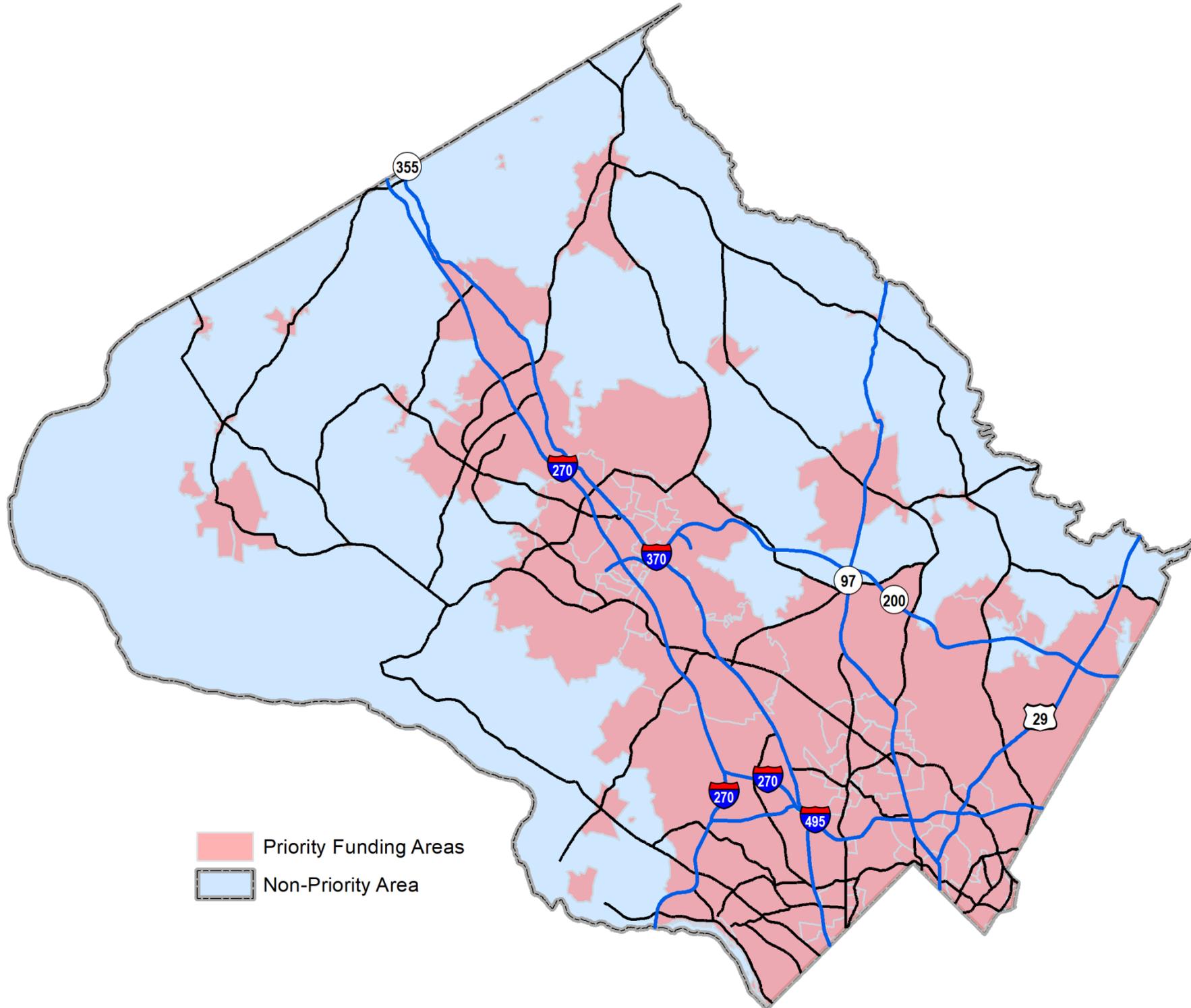


Equity Emphasis Areas are defined by the Metropolitan Washington Area Council of Governments as Census tracts with higher than average concentration of low-income, minority populations, or both.

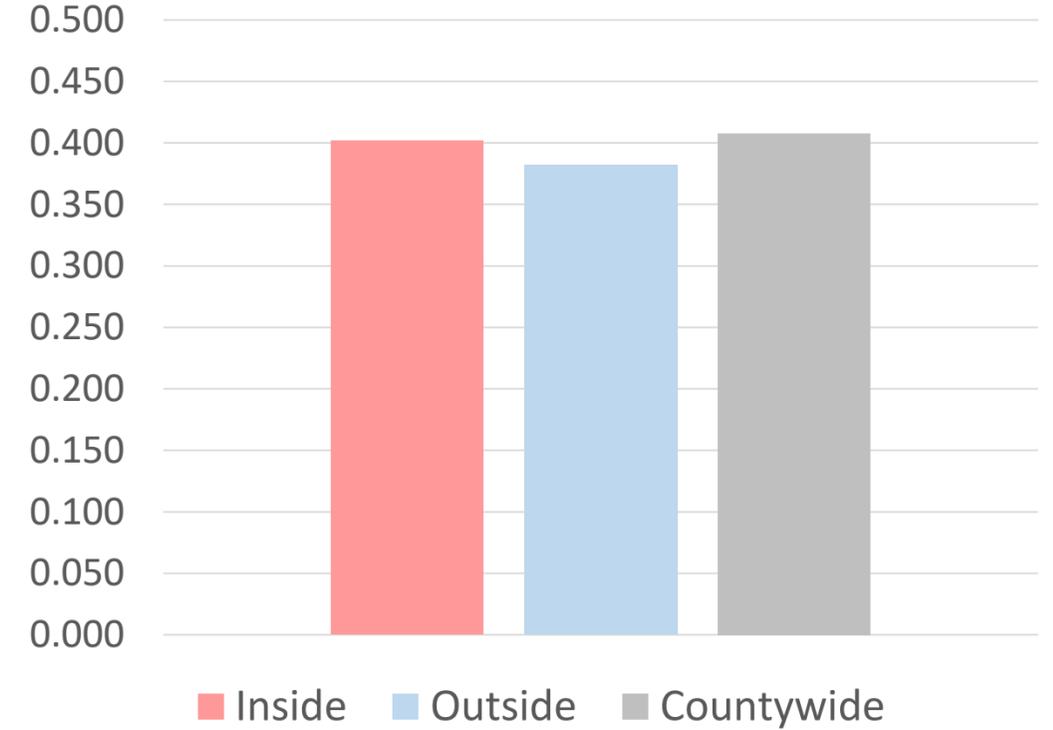
Student Generation Rate by: Inside/Outside Equity Emphasis Areas



Student Generation Rate by: Inside/Outside Priority Funding Areas

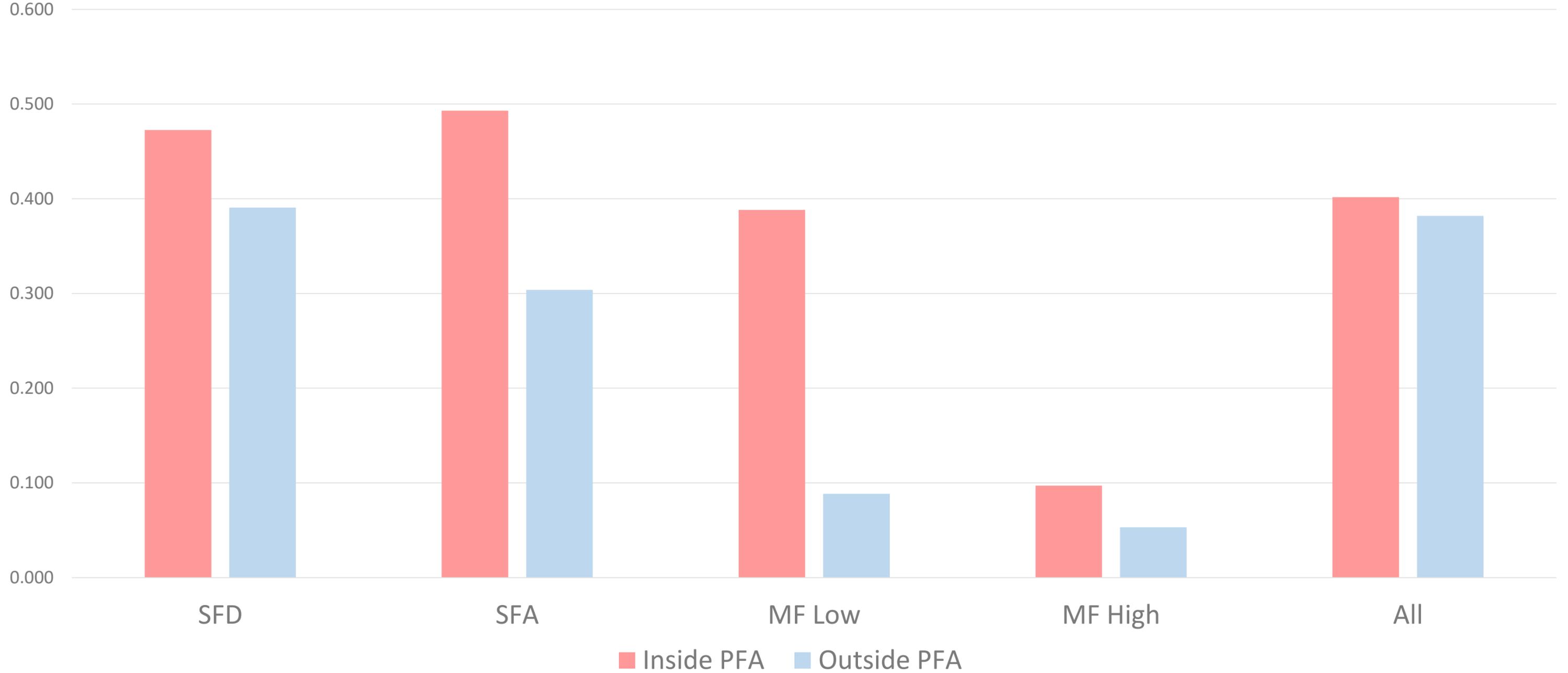


■ Priority Funding Areas
■ Non-Priority Area



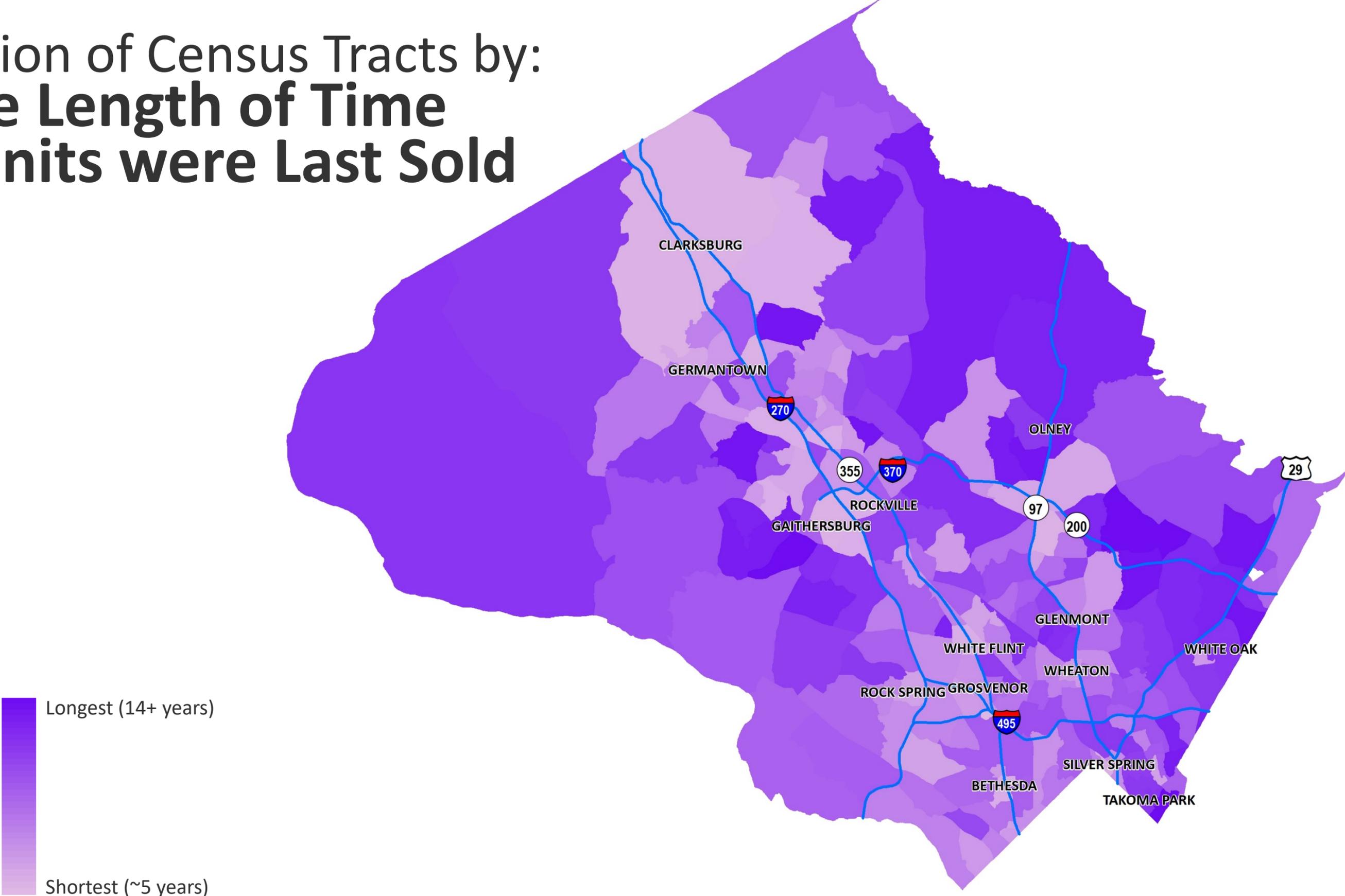
Priority Funding Areas are those identified by the county and certified by the state as designated smart growth areas eligible for state infrastructure funding. All areas inside the beltway and all municipalities are designated by law. Other areas eligible for designation include existing communities and areas where industrial or other economic development is desired. In addition, counties may designate areas planned for new residential communities which will be served by water and sewer systems and meet density standards.

Student Generation Rate by: Inside/Outside Priority Funding Areas



Alternative SGRs: Other Rates

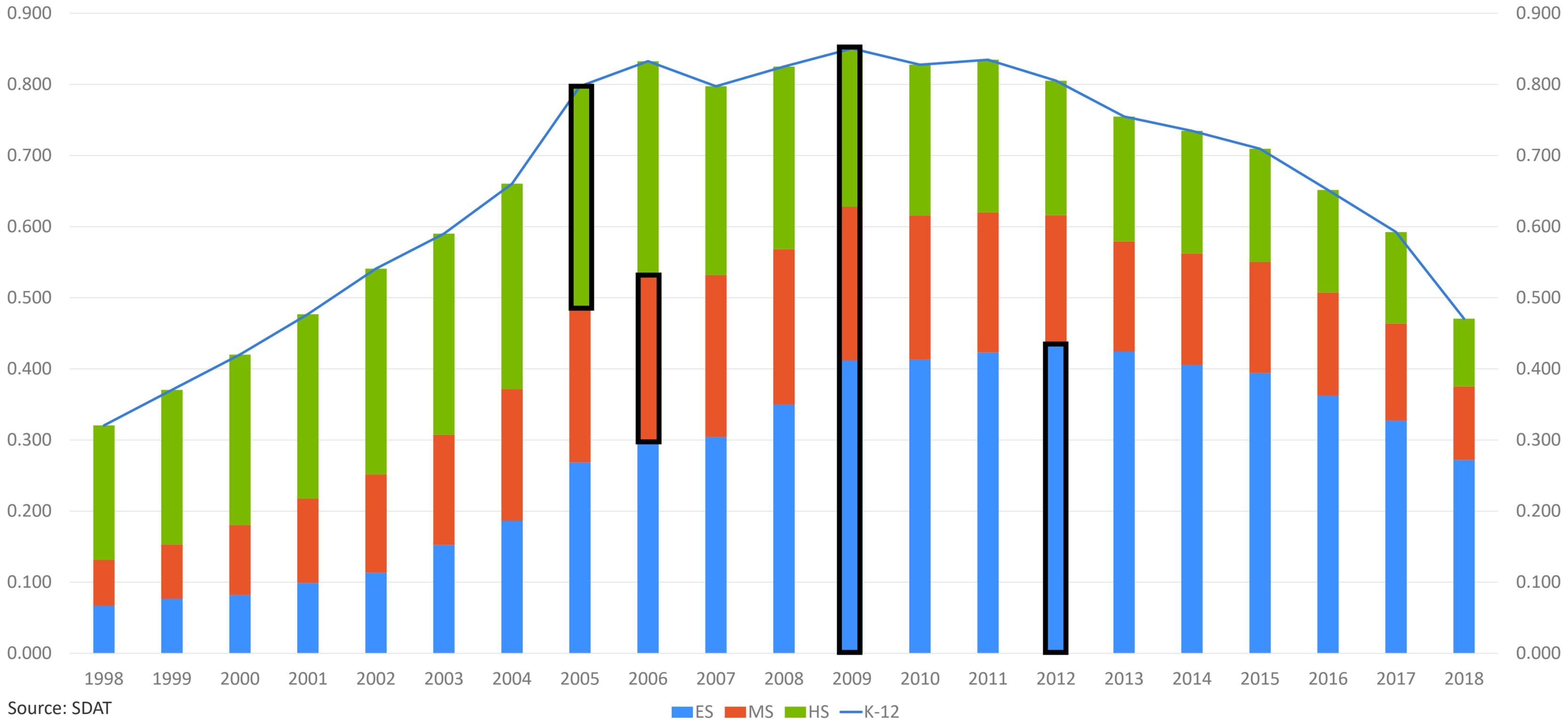
Distribution of Census Tracts by: **Average Length of Time Since Units were Last Sold**



Source: SDAT



Student Generation Rate by: Year Last Sold (Single Family Detached only)

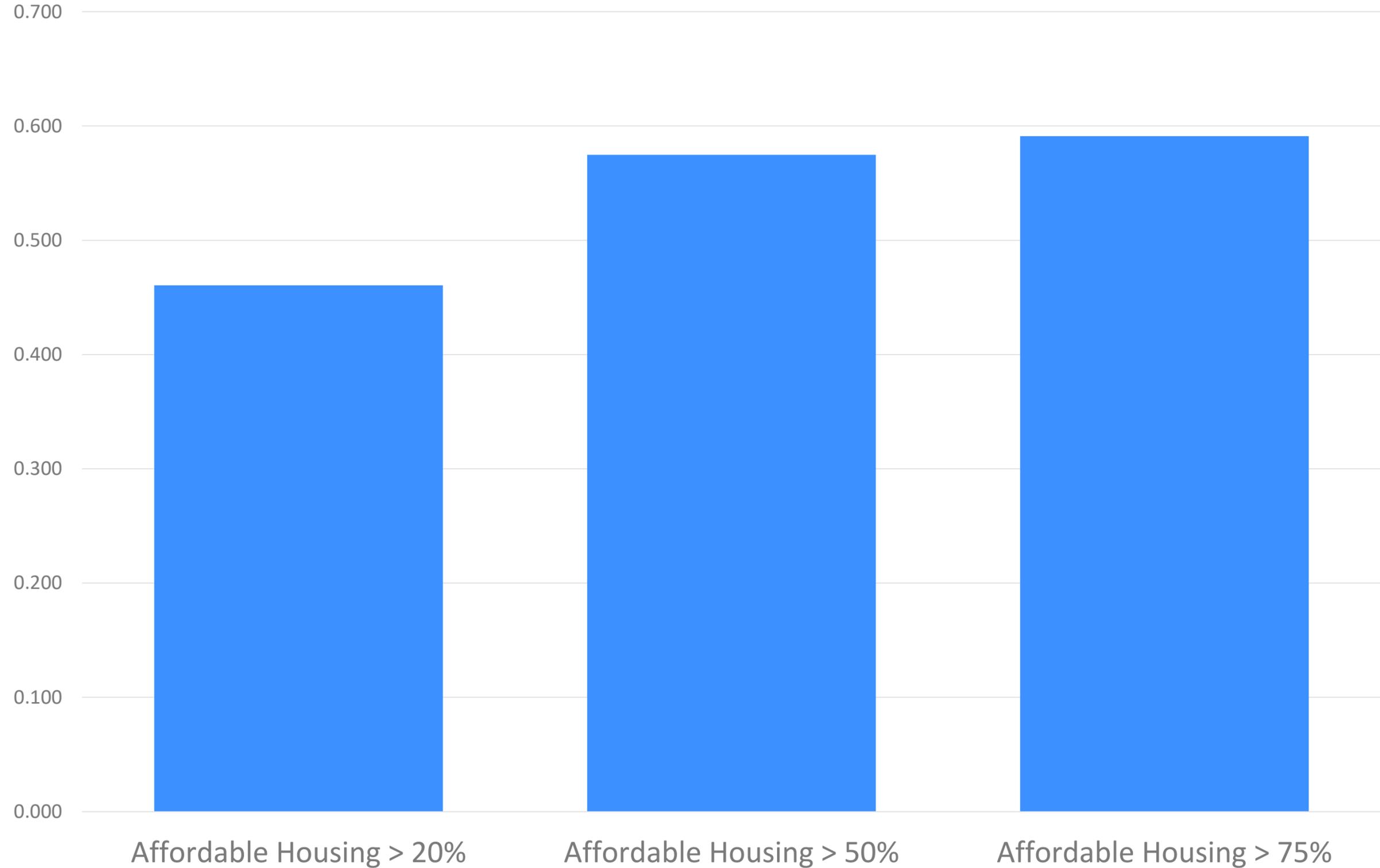


Source: SDAT

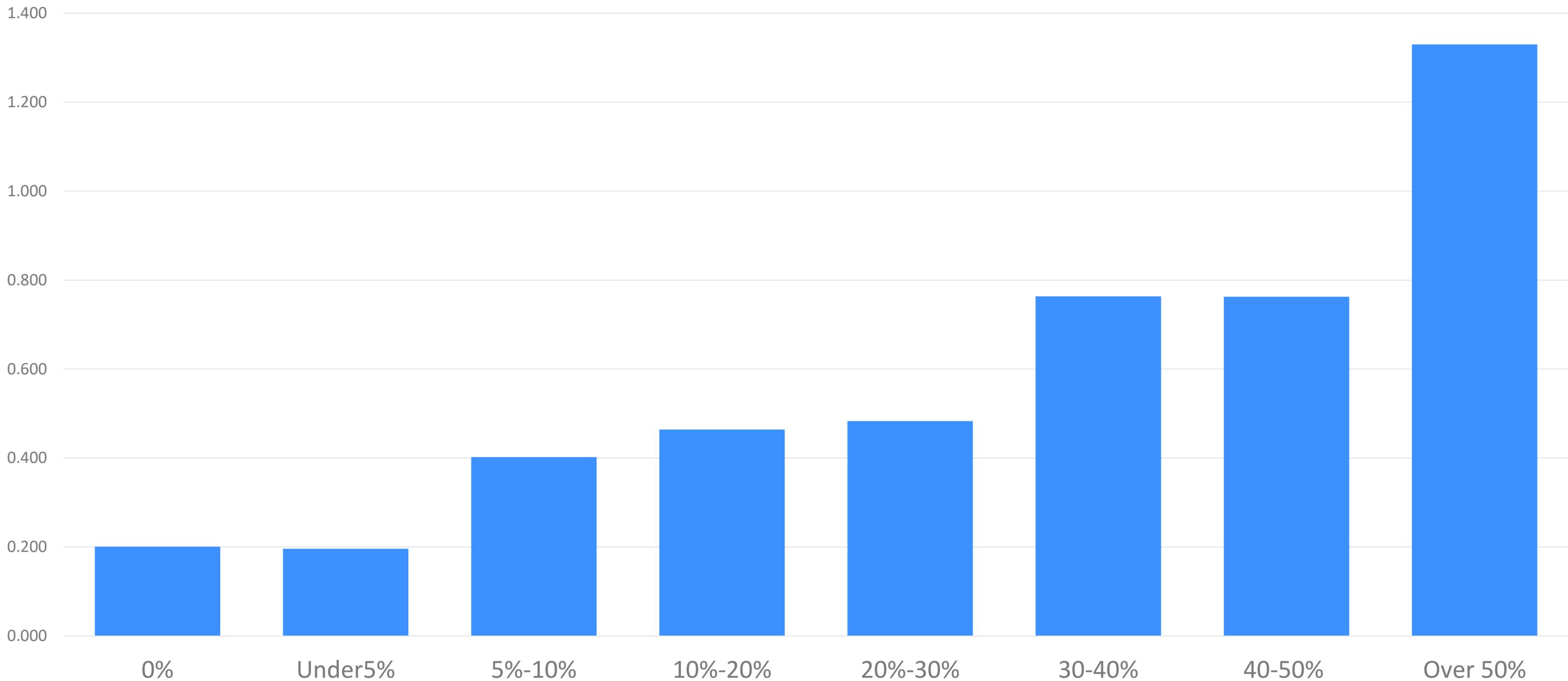
Student Generation Rate by: Share of Affordable Housing

Low-Income Housing Tax Credit (LIHTC) - Administered by state housing finance agencies; provides funding for the development costs of low-income housing; rental units only. the building must remain in compliance and is subject to a covenant to enforce compliance for a minimum of 40 years (15- year compliance period and a 25-year extended use period).

Project Based Section 8- An owner reserves some or all of the units in a building for low-income tenants, in return for a federal government guarantee to make up the difference between the tenant's contribution and the rent amount in the owner's contract with the government.



Student Generation Rate by: Share of 3-Bedroom Units (Multifamily buildings only)



Source: SDAT/DHCA

Preview of STAT Meeting #3

STAT Meeting #3

- Scheduled for Tuesday, December 3 at 7:00 pm
 - Conflicts with Council Public Hearing on Bill 34-19
- Topics:
 - Circle back on items from today's meeting
 - Continued review of alternative Student Generation Rates
 - Anything else?

Additional Alternative SGRs

- Policy Areas
- Distance to School
- Year Built
- Gross Floor Area (Single Family)
- Lot Size (Single Family)
- **Others?**