# Frederick County
# Pupil Yield Study
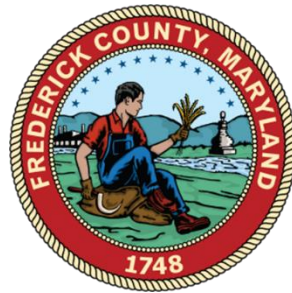
## December 15, 2025





Photo courtesy of Frederick County Public Schools

Prepared by the Special Projects Manager, Office of Budget,
in coordination and consultation with Frederick County Planning & Permitting Division,
Frederick County IIT Division, with Student Information Data from Frederick County Public Schools

## Introduction

Frederick County Public Schools (FCPS) and the County Planning & Permitting Division have used pupil yield factors since the 1980's for various comprehensive planning and capital facility planning purposes. Beginning in 1998, FCPS conducted a detailed student survey to help develop pupil yield factors by individual school attendance areas. The County conducted updates to the pupil yields using this detailed survey method in 2005, 2007 and 2014 (utilizing data from 2012).

Starting in 2014, the pupil yield data utilized the Geographic Information System (GIS) mapping to align dwelling types with student data more accurately than through a survey. Currently, the County conducts a comprehensive study to update the pupil yield factors approximately every two to three years. The most recent completed update occurred in 2022.

The County initiated a Pupil Yield Study in the fall of 2025, utilizing an extract of geocoded FCPS student data, as of September 30, 2025. The updated 2025 pupil yield factors should replace the 2022 pupil yield factors, effective January 1, 2026.

## Data

FCPS maintains a database of student addresses and grades. The data is sourced from parent/guardian enrollment forms and similar other sources. Administrative staff at each school update data as enrollment changes occur to maintain current content in the student data system. The student data used in this study included all kindergarten through 12th grade students enrolled as of September 30, 2025. The primary use of the student record in this study is for County Geographic Information Systems (GIS) staff to match the locational student data with grade to a dwelling type and school attendance area.

Separate from the student data system is a GIS file maintained by Frederick County Interagency Information Technologies, GIS staff, called the Housing Unit Inventory (HUI). The HUI is a point file, each point representing a housing unit within Frederick County, Maryland. The data includes information on dwelling type and is maintained on a regular basis with permits: new residential and demolition. The data is comprehensive for the entire county except only the pre-2010 data within Frederick City.

With the HUI not representing pre-2010 data within Frederick City, a proxy for this area was used. The 2015 Maryland State Department of Assessments and Taxation (SDAT) tax records were used as proxy. Every SDAT tax record has a housing unit type, count of housing units and built date assigned to it. Within Frederick City only, tax records with a built date prior to 2010 were used alongside the County HUI.

Once geocoded student address and grade data records were received from FCPS, County GIS staff spatially joined them to the HUI dataset. Based on the geographic location, a dwelling type was matched from the HUI to each student point record. Each pupil point record then represented a student with their grade and dwelling type to create the Pupil Points dataset.

Two models were developed by the County's GIS Team within ESRI ArcGIS software. One model counted each Pupil Point by category of the housing unit type within a school attendance area and yielded a count of pupils per housing unit type per school attendance area. The second model used the HUI (with the proxy pre-2010 Frederick City data) and counted each housing unit type within a school attendance area, yielding a count of housing unit types per school attendance area.

## Calculating the Pupil Yield Factors

Based on the three dwelling types (single family, town house, and multi-family) pupil yield factors were calculated for each school attendance area as follows:

> Total number of pupils (for each grade level)
> ÷
> Total number of dwellings (for each type)
> =
> Pupils/dwelling (for each grade level and dwelling type)

The basic methodology for determining pupil yield rates reflects the number of students within the particular school attendance area compared to the total number of dwellings in that school attendance area.

This methodology provides an average pupil yield rate, since not every new home that is built generates school age children. For the purposes of this study: single-family detached dwellings include mobile homes; townhouse dwellings include duplex dwellings; and, multi-family dwellings include condominiums, apartment (rental) units, and two-over-two units.

The 2025 study does not calculate a unique pupil yield rate specifically for two-over-two dwelling types, as was calculated in 2012, 2017, 2019, and 2022. A majority of the two-over-two dwelling units with planning approval in Frederick County have been constructed and are now occupied. For the 2025 study, students who reside in two-over-two units are reflected in the multi-family housing data and included in the multi-family pupil yield factors by school level. Any future proposed two-over-two units will be considered multi-family housing units.

## Data Anomalies

The utilization of GIS and updated methodologies gives us the ability to match the dwelling type with the number of students at a specific residence. However, anomalies for individual school attendance areas may remain, such as when an attendance area does not contain any dwelling units of a particular type, or when a school attendance area does not have any students in a particular dwelling type. In these scenarios, the countywide average for that grade level and dwelling type is applied and noted.

Another anomaly occurs when there are more students living within a school attendance area than the number of dwelling units for a particular dwelling unit type. This would result in a pupil yield factor of greater than one (1) and use of the countywide average for that school attendance area and particular dwelling type.

## Evaluation of a High Density Pupil Yield Factor

The South Frederick Corridor planning area will add approximately 10,000 dwelling units, primarily consisting of high density multi-family housing. While there are no applications currently under consideration, staff wanted to determine if a new high density multi-family pupil yield factor would assist in planning efforts in only the South Frederick Corridor special planning area.

To determine a unique high density pupil yield factor, housing data and student enrollment by grade level bands were examined from a small subset of high density multi-family dwelling units, recently constructed and occupied in Frederick County and the City of Frederick. The same basic methodology for determining pupil yield rates was employed for these multi-family housing units:    Bainbridge Lake Linganore Apartments (308 units)

Bainbridge Market Commons (344 units)
Ede Apartments (350 units)
Jefferson Place Apartments (228 units)
Orchard Park at Ballenger Run  (200 units)
Residences at Prospect Hall (376 units)
The Fred (240 units)
Urban Green (342 units)

Staff calculated the pupil yield factors for the high density housing subset and then averaged that data to determine a high density pupil yield factor by grade level band. Staff then compared those high density factors to the typical multi-family factors for the same grade levels for schools located in the South Frederick Corridor planning area. Staff determined the differences between the two were not enough to warrant a separate and unique high density factor. In fact, the pupil yield factor by school attendance area often yielded a slightly greater number of students than the unique high density pupil yield factor. Staff will assess the possibility of a high density pupil yield factor in the next Pupil Yield Study following the 2025 study.

## 2025 PUPIL YIELD RATES

The table below summarizes the countywide pupil yield rates for 2025 and provides a comparison with prior studies. A detailed list of the pupil yield rates by school attendance area and dwelling type is also included in this report. In general, the countywide average of the 2025 pupil yield rates changed slightly compared to the 2022 pupil yield rates.

- At the elementary school level, the countywide average for single family pupil yield rates and townhouse pupil yield rates decreased slightly, while the multi-family rate increased. This could be the result of more students living in multi-family units today than in 2022, or it could also be due to an increase in the total number of this type of dwelling unit with students in 2025 compared to 2022.

- At the middle school level, single family and townhouse dwelling unit types saw a slight decrease in pupil yields. The pupil yield rates for multi-family units at the middle school level for 2025 was unchanged from 2022.

- At the high school level, the pupil yield rates for single family dwelling units were unchanged when compared to 2022. The pupil yield rate for townhouses and multi-family dwelling units increased slightly from the 2022 study at the high school level.

- The highest overall pupil yield rate of 0.50 is at Butterfly Ridge Elementary for multi-family dwelling units. The lowest overall rate is .02 for multi-family dwelling units at Blue Heron Elementary and Walkersville Middle schools.

- Across all levels, the highest average rates overall are found in the townhouse dwelling unit type.

- By school level, the highest rates are:
    - Butterfly Ridge ES multi-family (0.50)
    - Urbana MS townhouse (0.23)
    - Urbana HS townhouse (0.30)

## Current and Past Countywide Pupil Yield Rate

| Dwelling Type | Study Year | Elementary School | Middle School | High School | All Grades |
|---|---|---|---|---|---|
| Single Family Detached | 1998 | 0.23 | 0.14 | 0.18 | 0.56 |
| | 2005 | 0.24 | 0.13 | 0.18 | 0.56 |
| | 2007 | 0.23 | 0.13 | 0.18 | 0.54 |
| | 2012 | 0.21 | 0.11 | 0.16 | 0.49 |
| | 2017 | 0.20 | 0.11 | 0.15 | 0.45 |
| | 2019 | 0.19 | 0.11 | 0.15 | 0.45 |
| | 2022 | 0.22 | 0.12 | 0.15 | 0.50 |
| | **2025** | **0.19** | **0.10** | **0.15** | **0.45** |
| Townhouse | 1998 | 0.20 | 0.08 | 0.09 | 0.37 |
| | 2005 | 0.24 | 0.10 | 0.13 | 0.47 |
| | 2007 | 0.24 | 0.10 | 0.13 | 0.47 |
| | 2012 | 0.27 | 0.10 | 0.13 | 0.49 |
| | 2017 | 0.27 | 0.12 | 0.13 | 0.52 |
| | 2019 | 0.24 | 0.12 | 0.13 | 0.49 |
| | 2022 | 0.20 | 0.11 | 0.15 | 0.45 |
| | **2025** | **0.22** | **0.11** | **0.16** | **0.49** |
| Multi-Family | 1998 | 0.06 | 0.02 | 0.02 | 0.23 |
| | 2005 | 0.05 | 0.02 | 0.02 | 0.09 |
| | 2007 | 0.05 | 0.02 | 0.02 | 0.09 |
| | 2012 | 0.12 | 0.04 | 0.05 | 0.21 |
| | 2017 | 0.13 | 0.04 | 0.05 | 0.23 |
| | 2019 | 0.12 | 0.05 | 0.06 | 0.23 |
| | 2022 | 0.10 | 0.05 | 0.06 | 0.21 |
| | **2025** | **0.12** | **0.05** | **0.07** | **0.25** |
| All Dwellings | 1998 | 0.20 | 0.11 | 0.14 | 0.45 |
| | 2005 | 0.21 | 0.11 | 0.15 | 0.48 |
| | 2007 | 0.21 | 0.11 | 0.15 | 0.46 |
| | 2012 | 0.21 | 0.10 | 0.14 | 0.44 |
| | 2017 | 0.20 | 0.10 | 0.13 | 0.43 |
| | 2019 | 0.19 | 0.10 | 0.13 | 0.42 |
| | 2022 | 0.19 | 0.10 | 0.13 | 0.42 |
| | **2025** | **0.19** | **0.10** | **0.14** | **0.42** |

## 2025 Pupil Yield Rates (effective January 1, 2026*)
## Frederick County Public Schools

| Elementary Schools | Single-Family | Townhouse | Multi-Family | Total |
|---|---|---|---|---|
| Ballenger Cr ES | 0.24 | 0.22 | 0.19 | 0.21 |
| Blue Heron ES | 0.32 | 0.24 | 0.02 | 0.30 |
| Brunswick ES | 0.22 | 0.17 | 0.09 | 0.20 |
| Butterfly Ridge ES | 0.23 | 0.20 | 0.50 | 0.22 |
| Carroll Manor ES | 0.15 | 0.26 | 0.05 | 0.15 |
| Centerville ES | 0.26 | 0.34 | 0.28 | 0.28 |
| Deer Crossing ES | 0.27 | 0.25 | 0.12*** | 0.26 |
| Emmitsburg ES | 0.10 | 0.17 | 0.14 | 0.11 |
| Glade ES | 0.19 | 0.19 | 0.07 | 0.18 |
| Green Valley ES | 0.29 | 0..40 | 0.12*** | 0.30 |
| Hillcrest ES | 0.19*** | 0.36 | 0.48 | 0.40 |
| Kemptown ES | 0.22 | 0.22** | 0.31 | 0.23 |
| Lewistown ES | 0.10 | 0.22*** | 0.06 | 0.10 |
| Liberty ES | 0.14 | 0.06 | 0.05 | 0.13 |
| Lincoln ES | 0.15 | 0.19 | 0.15 | 0.17 |
| Middletown ES and PS Total | 0.19 | 0.27 | 0.07 | 0.19 |
| Monocacy ES | 0.19 | 0.20 | 0.15 | 0.18 |
| Myersville ES | 0.17 | 0.31 | 0.10 | 0.17 |
| New Market ES | 0.22 | 0.19 | 0.12*** | 0.21 |
| New Midway/Woodsboro ES | 0.14 | 0.14 | 0.05 | 0.13 |
| North Frederick ES | 0.15 | 0.14 | 0.06 | 0.11 |
| Oakdale ES | 0.29 | 0.40 | 0.12 | 0.29 |
| Orchard Grove ES | 0.21 | 0.23 | 0.09 | 0.16 |
| Parkway ES | 0.12 | 0.08 | 0.04 | 0.08 |
| Spring Ridge ES | 0.21 | 0.11 | 0.07 | 0.13 |
| Sugarloaf ES | 0.37 | 0.40 | 0.12** | 0.38 |
| Thurmont ES and PS Total | 0.13 | 0.15 | 0.10 | 0.13 |
| Tuscarora ES | 0.28 | 0.24 | 0.15 | 0.23 |
| Twin Ridge ES | 0.20 | 0.14 | 0.36 | 0.19 |
| Urbana ES | 0.22 | 0.32 | 0.15 | 0.23 |
| Valley ES | 0.18 | 0.22 | 0.11 | 0.18 |
| Walkersville ES | 0.17 | 0.16 | 0.05 | 0.15 |
| Waverley ES | 0.16 | 0.21 | 0.26 | 0.22 |
| Whittier ES | 0.19 | 0.30 | 0.05 | 0.18 |
| Wolfsville ES | 0.11 | 0.22** | 0.08 | 0.11 |
| Yellow Spring ES | 0.19 | 0.23 | 0.03 | 0.19 |
| **Countywide Average** | **0.19** | **0.22** | **0.12** | **0.19** |
| **Middle Schools** | **Single-Family** | **Townhouse** | **Multi-Family** | **Total** |
| Ballenger Cr MS | 0.10 | 0.11 | 0.06 | 0.09 |
| Brunswick MS | 0.10 | 0.08 | 0.03 | 0.09 |
| Crestwood MS | 0.11 | 0.10 | 0.08 | 0.10 |
| Gov TJ MS | 0.09 | 0.06 | 0.03 | 0.06 |
| Middletown MS | 0.10 | 0.09 | 0.04 | 0.09 |
| Monocacy MS | 0.09 | 0.11 | 0.08 | 0.09 |
| New Market MS | 0.10 | 0.11 | 0.05*** | 0.10 |
| Oakdale MS | 0.16 | 0.17 | 0.05 | 0.15 |
| Thurmont MS | 0.07 | 0.08 | 0.05 | 0.07 |
| Urbana MS | 0.17 | 0.23 | 0.10 | 0.18 |
| Walkersville MS | 0.09 | 0.10 | 0.02 | 0.08 |
| West Frederick MS | 0.08 | 0.11 | 0.05 | 0.08 |
| Windsor Knolls MS | 0.13 | 0.14 | 0.05 | 0.13 |
| **Countywide Average** | **0.10** | **0.11** | **0.05** | **0.10** |
| **High Schools** | **Single-Family** | **Townhouse** | **Multi-Family** | **Total** |
| Brunswick HS | 0.14 | 0.10 | 0.04 | 0.13 |
| Catoctin HS | 0.11 | 0.09 | 0.07 | 0.10 |
| Frederick HS | 0.13 | 0.16 | 0.06 | 0.12 |
| Gov TJ HS | 0.12 | 0.10 | 0.08 | 0.10 |
| Linganore HS | 0.14 | 0.16 | 0.09 | 0.14 |
| Middletown HS | 0.13 | 0.21 | 0.07 | 0.13 |
| Oakdale High | 0.21 | 0.20 | 0.07 | 0.19 |
| Tuscarora HS | 0.15 | 0.16 | 0.09 | 0.14 |
| Urbana HS | 0.22 | 0.30 | 0.11 | 0.23 |
| Walkersville HS | 0.14 | 0.14 | 0.03 | 0.12 |
| **Countywide Average** | **0.15** | **0.16** | **0.07** | **0.14** |
| **Countywide Average all Schools** | **0.45** | **0.49** | **0.25** | **0.42** |

*Data from FCPS Student Information System, September 2025  **Utilized countywide average due to limited dwelling types
***Utilized countywide avg. due to no students in housing type