



# School Division Redistricting Services

## Proposal Response

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### SUBMITTED TO

Bedford County Public Schools  
Attn: Randy Hagler  
Assistant Superintendent for Finance and  
Operations  
311 South Bridge Street  
Bedford, VA 24523

May 2026

### SUBMITTED BY

**Demographic Analytics Advisors, LLC**  
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### CONTACT

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Mr. Hagler,

We are pleased to submit this proposal for School Division Redistricting Services for Bedford County Public Schools. Demographic Analytics Advisors brings deep expertise in K-12 enrollment forecasting, demographic analysis, and attendance zone redistricting — the precise combination of skills this project demands.

Bedford County is navigating a set of interrelated challenges that our team knows well from similar engagements across the country: declining enrollment even as the county's population grows, a pronounced eastward shift of students toward the Forest corridor, the planned closure of Stewartville Elementary at the end of 2026-27, and the need to redistrict the entire division for long-term efficiency. These are not challenges that can be addressed in isolation. A boundary change that relieves overcrowding in the east must account for what happens to utilization in the west. A closure that saves operating costs must be paired with a reassignment plan that works for families and bus routes. Our approach treats these as connected pieces of the same puzzle.

Our three principal demographers — Christopher Dick, Beth Jarosz, and Dr. Ron Prevost — have collectively spent decades developing population estimates and projections at the United States Census Bureau, the State of Ohio, the Population Reference Bureau, the San Diego Association of Governments (SANDAG), Georgetown University, and Demographic Analytics Advisors. We have worked with K-12 districts across multiple states on enrollment forecasting, capacity analysis, and redistricting, including districts facing the same growth-versus-enrollment paradox that Bedford County faces today.

We are particularly well-suited for this project. Our redistricting work with Brunswick County Public Schools in North Carolina — where we have been under contract since 2023 and recently extended for three additional years — has involved drawing new attendance zone boundaries to accommodate residential growth and new school construction, directly analogous to Bedford County's eastern corridor challenges. In April 2026 we also published *Enrollment Forecasting, Capacity, and Utilization Analysis: Best Practices and an Assessment of Current Models — Olathe Public Schools*, a peer-benchmarked review of the exact analytical questions Bedford County faces today: how to measure functional building capacity, how to build a forecast that incorporates the housing pipeline rather than only past enrollment trends, and how to tie utilization analysis to defensible governance decisions. We will bring the same documented best-practices framework to Bedford County. Our team's GIS and spatial analysis capabilities equip us to deliver the high-resolution, street-level maps and data products this RFP requires. And as a Virginia-based firm headquartered in Vienna, we understand the Commonwealth's regulatory environment — including VA Code § 22.1-79(8) governing school closures, the Virginia Public Procurement Act, and FERPA requirements for student data.

In the pages that follow, we present our firm profile, experience with similar projects, assigned staff and their qualifications, our technical approach to Bedford County's redistricting needs, a detailed timeline, references, and our fee structure. We are confident we can deliver all required products on schedule, from project kickoff on June 12, 2026 through the Board presentation on October 8, 2026.

Best,

Chris Dick Founder, Demographic Analytics Advisors, LLC

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# Executive Summary

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Demographic Analytics Advisors, LLC (DAA) is a Virginia-based demographic analysis firm specializing in K-12 enrollment forecasting, GIS-based attendance zone analysis, and division-wide school redistricting. We are pleased to submit this proposal in response to Bedford County Public Schools' RFP for School Division Redistricting Services.

Bedford County faces an interrelated set of challenges that align directly with our areas of focus: declining division-wide enrollment alongside population growth, an eastward shift of students toward the Forest corridor, the planned closure of Stewartville Elementary at the end of 2026-27, and the need to redistrict the entire division for long-term efficiency. Our proposal sets out a phased eight-step methodology — from data collection through Board presentation — designed to address these issues as connected pieces of the same puzzle, not in isolation.

The work will be led by Christopher Dick (firm founder, former U.S. Census Bureau branch chief for population estimates), with Beth Jarosz (Senior VP of Forecasting and Demography) and Dr. Ronald Prevost (Senior VP for Demography) serving as principal demographers. Our recent engagements demonstrate direct relevance to BCPS's situation. With Brunswick County Public Schools, NC, we have been under contract since 2023 (recently extended through 2029) drawing attendance boundaries to accommodate residential growth and new school construction. With Olathe Public Schools (USD 233, KS), we recently completed a published best-practices assessment of enrollment forecasting, functional capacity measurement, and building-level utilization analysis — the exact analytical scaffolding Bedford County now needs. The methods documented in that paper are the methods we will bring to this engagement.

DAA proposes a fixed-fee structure for the base scope, with optional add-on services priced separately. We commit to delivering all required products on the RFP timeline: Round 1 preliminary scenarios on August 31, 2026, Round 2 modified scenarios on September 30, 2026, and the Board presentation in person on October 8, 2026.

## Firm and Team Profile

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**Name of Company:** Demographic Analytics Advisors, LLC **Address:** 112 Elmar Dr. SE, Vienna, VA 22180 **Phone:** (509) 432-4117 **Main Point of Contact:** Christopher Dick, Founder and CEO **Email:** chris@demoadvisors.com **FEIN:** 86-1979854 **Year and Month of Formation:** February 2021  
**Ownership Interests:** Demographic Analytics Advisors, LLC is wholly owned by Christopher Dick  
**State Corporation Commission ID:** [SCC ID]

### Business History, Present Status and Projected Direction

Demographic Analytics Advisors (DAA) is a demographic, economic, and data science consulting firm specializing in small area population estimates for federal, state, and local governments. Founded in February 2021, the firm has spent its entire history applying demographic methods and GIS-based spatial analysis to the planning challenges of K-12 school districts and other public-sector clients. Our team brings over 60 years of combined experience in demographic methods, employment analysis, GIS, and forecasting, drawn from prior careers at the U.S. Census Bureau, the State of Ohio, the Population Reference Bureau, the San Diego Association of Governments, and Georgetown University.

Each of our three principals has worked at the center of demographic data production in the United States. Many of the population estimates procedures still in use at the Census Bureau were developed in the early 1990s by Dr. Ron Prevost. Chris Dick spent his Census Bureau career on estimates and projections methodology, culminating in his role as branch chief of the Population Evaluation, Assessment and Projections Branch — where he oversaw Demographic Analysis, Estimates Evaluation, and the Bureau’s annual research and development cycle for population estimates and projections. Beth Jarosz has managed long-range regional growth forecasts for multiple California councils of governments, overseeing every stage of forecast development from data collection through advisory committee review and public presentations.

DAA has worked with school districts in multiple states, as well as other government, nonprofit, and private-sector organizations. Our focus is on K-12 enrollment projections, demographic studies, and redistricting — work that connects rigorous demographic analysis to decisions that directly affect communities and families.

### Current Client List (Forecasting, Estimation, and Redistricting Projects)

1. St. Louis Public Schools, MO
2. Riverview Gardens School District, MO
3. Francis Howell School District, MO
4. Wake County Public School System, NC
5. Brunswick County Public Schools, NC
6. North Carolina Department of Public Instruction (forecast enrollment for all 100 school districts in NC)
7. Orange County Public Schools, NC

8. Chapel Hill - Carrboro Public Schools, NC
9. Transylvania County Public Schools, NC
10. Horseheads Central School District, NY
11. Norfolk Public Schools, MA
12. Lexington-1 School District, SC
13. Olathe Public Schools, KS
14. North Penn School District, PA
15. Connecticut Department of Public Health, CT (developed town population estimates for the state)
16. University of Florida, FL (develop state and county population estimates and forecasts for the state legislature)
17. Lee-Moore Capital Company, NC
18. Western Connecticut State University, CT

## GIS Experience with K-12 School Districts

Geographic Information Systems are central to how we work. Our GIS capabilities span the full redistricting workflow: geocoding student enrollment records to precise locations, creating and modifying attendance zone boundary shapefiles, producing high-resolution maps with street-level detail, and performing spatial analysis of enrollment patterns, housing development, and capacity utilization. We have applied these tools in redistricting engagements for Brunswick County Public Schools (NC) and Horseheads Central School District (NY), among others. Our mapping deliverables range from static high-resolution PDFs suitable for Board presentations and community meetings to interactive web-based applications that let district leadership and residents explore boundary scenarios on their own.

## K-12 Educational Planning Experience

Beyond redistricting and mapping, DAA's K-12 work routinely addresses the broader educational planning questions that boundary work depends on. Capacity utilization analysis — measuring projected enrollment against building capacity at each school and identifying where overcrowding is likely to emerge — is a core component of every district engagement we undertake. We assess how building counts and configurations perform under projected enrollment, identify where additions, consolidations, or closures may be warranted, and analyze how planned residential development pipelines reshape capacity needs over the coming decade.

For **Olathe Public Schools (USD 233, Kansas)**, we published in April 2026 a peer-benchmarked best-practices review of school-district enrollment forecasting, capacity measurement, and building-level utilization analysis. The paper assessed Olathe's current practice against a panel of Kansas City metropolitan peers (Blue Valley, Shawnee Mission, Lee's Summit R-VII, North Kansas City, Park Hill) and a set of national exemplars (Wake County PSS, Frisco ISD, Douglas County SD, Boulder Valley SD, Loudoun County PS), using a four-theme frame: documentation maturity, methodological rigor, decision linkage, and subgroup visibility. The substantive findings — that functional capacity is the right denominator (not architectural design capacity), that hybrid subdivision-based cohort progression outperforms pure district-wide cohort survival, that grid-level housing overlays produce more accurate forecasts than enrollment trends alone, and that utilization should be reported at both

current year and forecast horizon to make the trajectory visible — are all directly applicable to Bedford County. Several of those questions are immediate for BCPS: the operational capacities currently used in district planning are a blend of HSMM (2002) and EMG (2016) studies, with three buildings (Forest Middle, Liberty Middle, and Jefferson Forest High) carrying “architectural design” rather than functional capacity values, which is a measurement convention worth revisiting in this engagement.

For **Lexington School District 1 (SC)**, we combined cohort-based forecasting with student yield from new development and in-migration analysis to identify where overcrowding was likely to emerge — work that connected enrollment projections directly to facility planning decisions.

For Bedford County, this experience will inform whether the current building inventory is sustainable under the projected smaller, unevenly distributed enrollment, where additional capacity may be needed, and how the planned closure of Stewartville Elementary affects long-term planning.

## Similar Redistricting Projects (Past 5 Years)

The following K-12 school district redistricting engagements are most directly comparable to the scope described in this RFP:

**Brunswick County Public Schools, NC** (*November 2023 – Present*) DAA was engaged to develop enrollment forecasts and redraw attendance zone boundaries to balance enrollment across the district in response to rapid residential growth. The engagement was initially scoped for one year and has since been extended for three additional years of annual updates and continued boundary work. Reference contact details are provided in the References section.

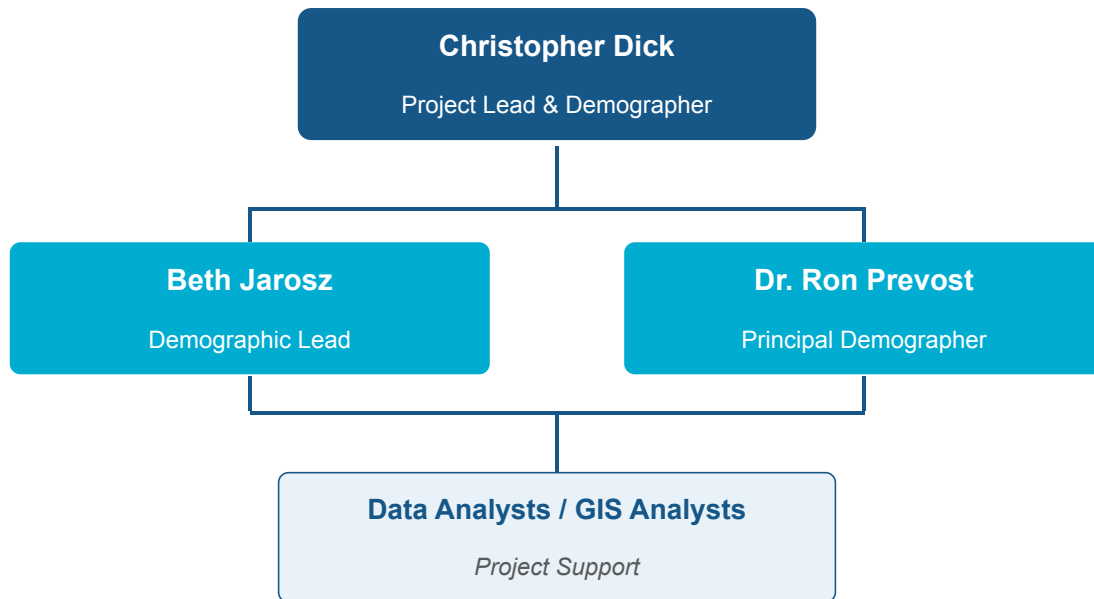
**Horseheads Central School District, NY** DAA delivered a redistricting analysis with an interactive web-based scenario presentation that allowed district leadership and the public to explore proposed boundaries directly. A public-facing example of this work is available at <https://daa-labs.co/HorseheadsCSD-Districting/>.

**Olathe Public Schools, KS** (*2024 – April 2026*) DAA conducted a best-practices assessment of Olathe Public Schools’ enrollment forecasting, capacity measurement, and building-level utilization analysis to inform the district’s Student Enrollment and Facility Alignment Task Force and its 2026 bond planning. Although the deliverable was a published methods paper rather than a boundary scenario, the analytical scaffolding — peer-benchmarked utilization tables by school and level, functional-capacity audit, hybrid subdivision-based cohort-progression forecasting, and a documented decision-linkage rubric — is the same scaffolding required for the Bedford County scope of work. The paper is publicly available at <https://app.daa-labs.com/olathe-2026/>.

*[Chris to confirm and add additional K-12 redistricting engagements from the past five years from the broader client list — e.g., North Penn PA, Wake NC, Orange NC. Each should include client name, dates of service, and a 2-3 sentence description of the redistricting scope.]*

## Experience of Key Personnel

Our project team brings extensive experience developing and delivering demographic and economic studies for school districts, local governments, state agencies, and federal institutions. Below we provide an organization chart followed by biographies for each principal. Resumes are available upon request. All staff listed here will be available for this project.



### Project Lead and Demographer: Christopher Dick

Chris Dick is the president and founder of Demographic Analytics Advisors. He holds an MA in sociology from Washington State University and is ABD in Sociology at North Carolina State University. Chris began his career at the United States Census Bureau as a demographer working on population estimates for cities, towns, and counties across the United States. By the time he departed, he was branch chief overseeing estimates research and the population projections for the nation. He also spent time at United States Citizenship and Immigration Services developing immigration projections for workforce modeling and facility planning. Prior to founding DAA, Chris led the government practice at Cavis Analytics, where he helped local, state, and federal clients use data more effectively in their operations.

Chris brings recognized expertise in the federal, state, and local data assets that underpin any enrollment projection — including a deep understanding of their strengths, limitations, and appropriate applications. He is a former board member of the Federal Forecasters Consortium, a founder of the projects [dataindex.us](http://dataindex.us) and [essentialdata.us](http://essentialdata.us), a fellow at Harvard Law's Library Innovation Lab, and a member of numerous professional organizations in demography and population studies.

**Office Location:** Vienna, VA (DAA headquarters)

## Demographic Lead: Beth Jarosz

Beth Jarosz is Senior Vice President of Forecasting and Demography at DAA and a senior fellow at the Massive Data Institute at Georgetown University, where she works to strengthen public data infrastructure. Before joining DAA, she oversaw the Population Reference Bureau's California portfolio, including regional growth forecasting for six councils of governments (AMBAG, MCAG, SANDAG, SCAG, SLOCOG, and TCAG) and Regional Housing Needs Assessments for AMBAG and San Benito COG. Earlier, as Senior Analyst at SANDAG, she managed the agency's long-range regional growth forecasts end-to-end — from data collection and model development through advisory committee review and public presentation — and served as a key member of SANDAG's RHNA team. She also coordinated the annual MPO/COG Socioeconomic Modeling Mini-Conference, bringing together practitioners from across the nation to discuss best practices in regional and subregional modeling.

Beth has authored peer-reviewed journal articles and conference presentations on estimation and forecasting techniques. She serves as Vice President of the Association of Public Data Users and holds a Master's in demographic and social analysis from the University of California, Irvine.

**Office Location:** [Beth's location]

## Principal Demographer: Dr. Ronald Prevost

Dr. Prevost holds a PhD in demography from Bowling Green State University, where he began his career as State Demographer for Ohio. He subsequently joined the United States Census Bureau, where he helped develop and produce population estimates and projections for the nation. The methods he created are still largely in use for estimating populations of cities, towns, counties, and states. Dr. Prevost went on to lead multiple Census Bureau programs and served at the Office of the Inspector General at the Department of Commerce as the OIG representative overseeing the Census Bureau and other statistical agencies. His work included directing and developing the Longitudinal Employer-Household Dynamics (LEHD) program — now a primary data source for understanding employment and commuting patterns across the country.

Currently a Research Professor at the Massive Data Institute at Georgetown University and Senior VP for Demography at DAA, Dr. Prevost is a recognized authority on the 2020 Census and the implications of differential privacy, operational changes, and questionnaire modifications for the time-series data used in post-2020 forecasting. He is a member of the Census Scientific Advisory Committee, where he advises the Bureau on population estimates methodology.

**Office Location:** [Ron's location]

# Understanding of the Project

Bedford County Public Schools serves approximately 8,390 students (projected 2026-27) across what will be 18 schools once Stewartville Elementary closes: 1 primary school (PK-1), 11 elementary schools, 3 middle schools, and 3 high schools. The district occupies a large geographic footprint in central Virginia between the Roanoke and Lynchburg metropolitan areas, organized into three high school zones — Jefferson Forest (east), Liberty (central/west), and Staunton River (south).

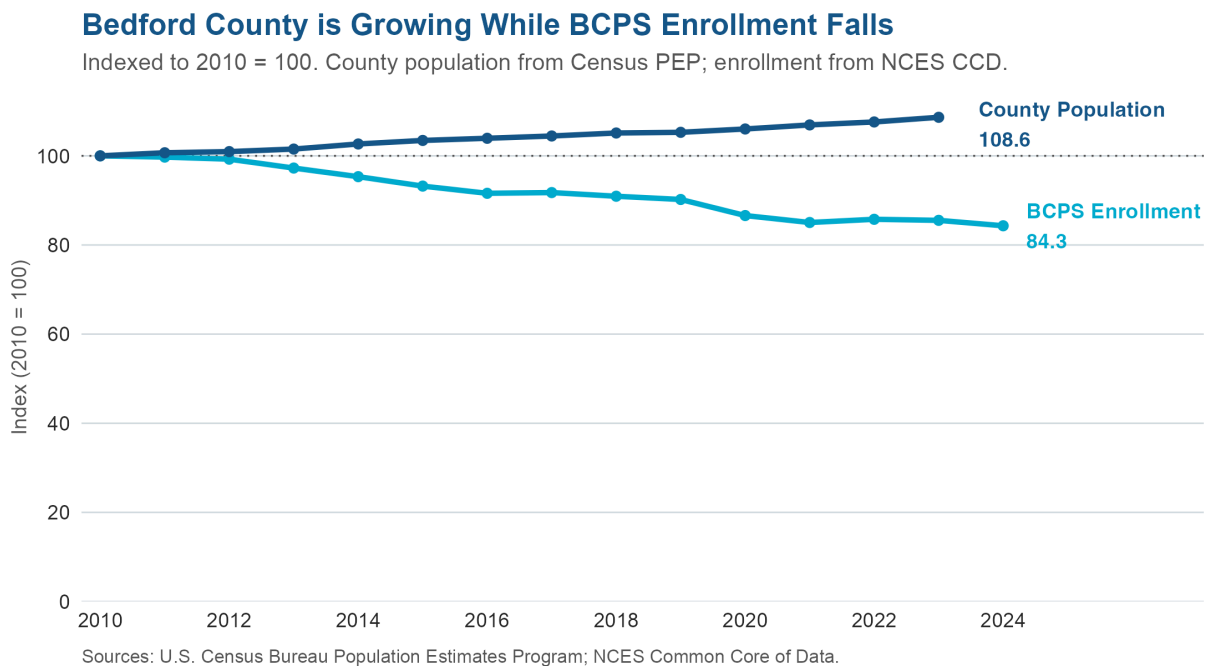


Figure 1: Bedford County population is growing while BCPS enrollment falls. (Indexed to 2010 = 100. Sources: Census PEP; NCES CCD.)

## The Core Challenge: A County Growing in One Direction

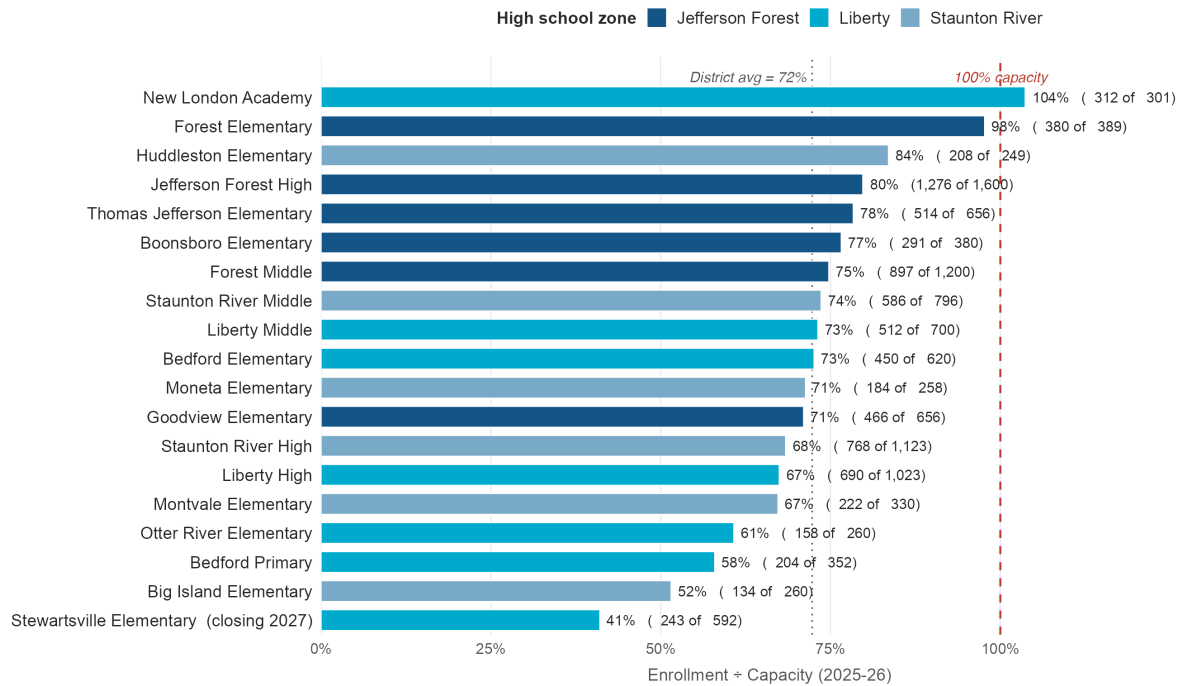
Bedford County's population has grown 25% since 2000, surpassing 80,000 residents. Yet school enrollment has steadily declined, as each incoming kindergarten class is smaller than the outgoing senior class it replaces — a consequence of lower birth rates that is playing out across many Virginia communities. What makes Bedford County's situation distinctive is that this decline is not uniform. The eastern part of the county — particularly the Forest corridor along U.S. Route 221, which was widened to four lanes in 2009 — continues to attract residential development and new families, while western and southern areas lose students year over year.

The result is a district running at roughly 72% of capacity on average, but with that average concealing a more than 60-percentage-point spread across schools. New London Academy is **over** capacity at 104% (312 K-12 students against a capacity of 301), Forest Elementary is essentially full at 98%, and Huddleston Elementary is at 84%. At the other end of the range, Big Island Elementary sits at 52% and Stewartville Elementary at 41% — a figure that has fallen from the school's longer-

term ~50% baseline as families anticipate the planned closure. The contrast is sharpest in the Forest corridor: Forest Middle has absorbed enough growth to motivate a \$22.5 million bond for expansion, while several western and southern schools operate well below their design capacity. The Board’s November 2025 “overflow model” for Forest zone elementary schools was a near-term response to this imbalance; this RFP represents the opportunity to address it comprehensively.

### BCPS Schools Range from 41% to 104% of Capacity

Forest-zone schools cluster near the top — New London Academy is now over capacity. Western and southern



Sources: VDOE Fall Membership Statistics (Sept 30, 2025 actual count), school-level K-12 enrollment. Capacities from BCPS Membership Projections 2024-2029, Table 14 (HSMM 2002 + EMG 2016 facility studies).

Figure 2: BCPS school capacity utilization, 2025-26. New London Academy now exceeds capacity at 104%, Forest Elementary is at 98%, and Stewartsville Elementary has fallen to 41%. Sources: VDOE Fall Membership Statistics (September 30, 2025 actual count); BCPS Membership Projections 2024-2029, Table 14 (HSMM 2002 + EMG 2016 facility studies).

### Elementary Capacity By School

2025-26 K-12 enrollment and operational capacity

School	2025-26 Enrollment	Operational Capacity	Utilization
Bedford Elementary	450	620	72.6%
Bedford Primary	204	352	57.9%
Big Island Elementary	134	260	51.5%
Boonsboro Elementary	291	380	76.6%
Forest Elementary	380	389	97.7%
Goodview Elementary	466	656	71.0%

School	2025-26 Enrollment	Operational Capacity	Utilization
Huddleston Elementary	208	249	83.5%
Moneta Elementary	184	258	71.3%
Montvale Elementary	222	330	67.3%
New London Academy	312	301	103.7%
Otter River Elementary	158	260	60.8%
Stewartsville Elementary	243	592	41.0%
Thomas Jefferson Elementary	514	656	78.4%
<b>Total</b>	<b>3,766</b>	<b>5,303</b>	<b>71.0%</b>

Sources: Enrollment from VDOE Fall Membership Statistics (September 30, 2025 actual count, K-12 only). Capacities from BCPS Membership Projections 2024-2029, Table 14 (HSMM 2002 + EMG 2016 facility studies).

### Middle Capacity By School

2025-26 enrollment and operational capacity

School	2025-26 Enrollment	Operational Capacity	Utilization
Forest Middle*	897	1,200	74.8%
Liberty Middle*	512	700	73.1%
Staunton River Middle	586	796	73.6%
<b>Total</b>	<b>1,995</b>	<b>2,696</b>	<b>74.0%</b>

Sources: Enrollment from VDOE Fall Membership Statistics (September 30, 2025 actual count). Capacities from BCPS Membership Projections 2024-2029, Table 14. \*Capacity according to architectural design.

### High Capacity By School

2025-26 enrollment and operational capacity

School	2025-26 Enrollment	Operational Capacity	Utilization
Jefferson Forest High*	1,276	1,600	79.8%
Liberty High	690	1,023	67.5%
Staunton River High	768	1,123	68.4%
<b>Total</b>	<b>2,734</b>	<b>3,746</b>	<b>73.0%</b>

Sources: Enrollment from VDOE Fall Membership Statistics (September 30, 2025 actual count). Capacities from BCPS Membership Projections 2024-2029, Table 14. \*Capacity according to architectural design.

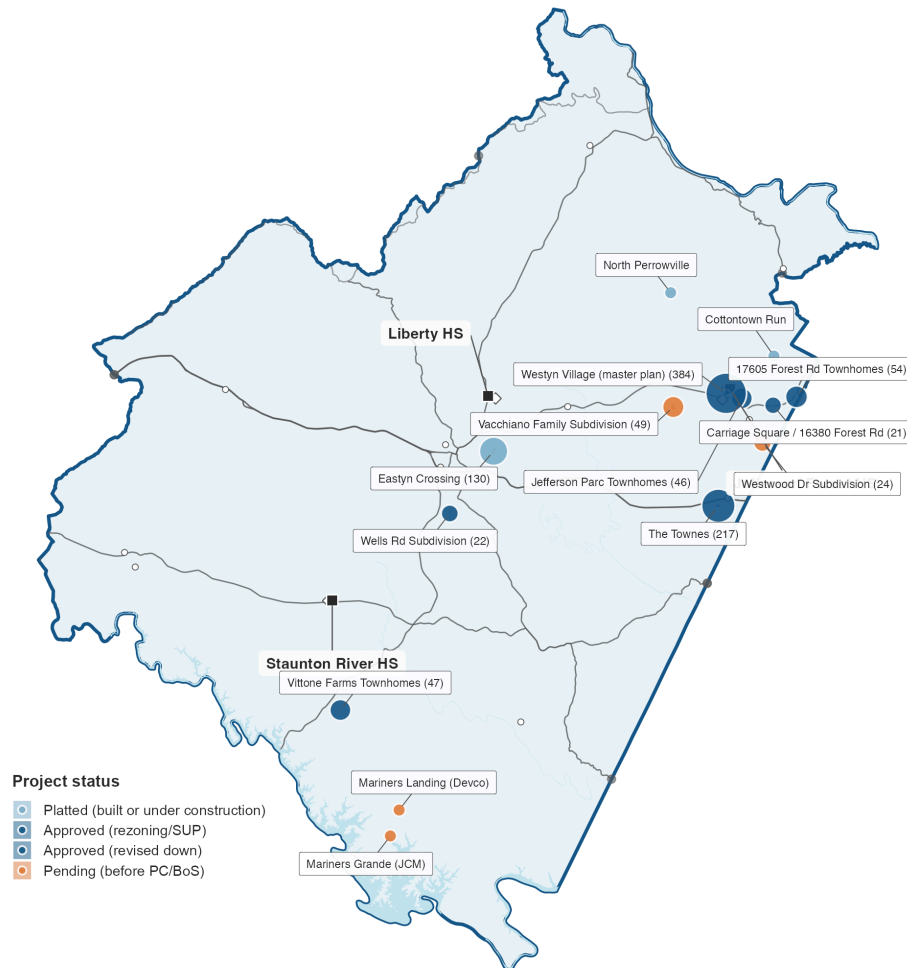


Figure 3: Selected residential developments in the Bedford County housing pipeline, 2022–2026. Markers are sized by approved or proposed unit count and placed at parcel centroids; the Forest corridor (Jefferson Forest HS zone) holds the heaviest concentration. Sources: Bedford County GIS Subdivisions and Parcels layers; Bedford County Planning Commission and Board of Supervisors meeting packets, 2022–2026. To be confirmed and expanded during the engagement.

## The Stewartsville Closure and the Fiscal Context

The planned closure of Stewartsville Elementary — the district’s oldest operating school, built in 1912 and running at 41% of capacity in 2025-26 — adds both urgency and political sensitivity to this redistricting. The closure is projected to save approximately \$1 million per year in operating costs. In March 2026, the Board voted 5-2 to close the school, prompting a community lawsuit that cited procedural requirements under VA Code § 22.1-79(8). Rather than wait for the court’s June ruling, the Board held a new public hearing and voted unanimously to delay closure to the end of 2026-27, launching this division-wide redistricting study at the same time.

The closure does not stand alone. BCPS faces a projected ~10% drop in state funding starting in 2027-28, when the City of Bedford’s reversion funding expires — a gap the district has estimated at

roughly \$3 million. Redistricting is therefore not just an attendance-zone exercise; it is a key tool for matching the district's physical plant to a smaller and unevenly distributed enrollment under tighter operating budgets. Teachers displaced by the Stewartville closure are expected to be reassigned across the division, primarily to Goodview Elementary, but the longer-term staffing footprint depends on the boundary scenarios this study produces.

We recognize that this history means the redistricting process must be not only analytically sound but transparent and clearly communicated at every step.

## Binding Constraints

Several constraints from the RFP will shape every scenario we develop:

- **Shared bus routes require identical middle and high school boundaries.** This is a hard constraint that links secondary-level boundary decisions together and narrows the solution space.
- **The redistricting must address the entire division.** Rather than incremental zone-by-zone adjustments, this is an opportunity to optimize across all grade levels and all 18 schools simultaneously.
- **Subdivision integrity must be maintained within attendance boundaries.** Families within the same neighborhood should attend the same school wherever possible.
- **Future residential development must be accounted for.** A review of Bedford County Planning Commission and Board of Supervisors packets from 2022 through April 2026 identifies more than 1,000 approved or pending residential units in the BCPS service area. The Forest corridor (Jefferson Forest HS zone) carries the heaviest concentration — including Westyn Village (up to 384 units), The Townes (217 townhouses), 17605 Forest Road (54 townhouses), the Vacchiano Family subdivision (49 lots, pending), Jefferson Parc townhomes (46 units), and Carriage Square at 16380 Forest Road (21 townhouses) — with additional pipeline items near Smith Mountain Lake (Mariners Landing rezonings, Vittone Farms 47 townhouses) and in the Town of Bedford (Eastyn Crossing, 130 single-family lots already platted). The Bedford County School Board has already begun considering whether to move Westyn Village students from Forest Elementary to Otter River Elementary in response to overcrowding, an early indicator that the redistricting solution must explicitly model the development pipeline rather than rely on current rolls alone.
- **The district's existing enrollment projections should be independently reviewed** and adjusted where our analysis warrants.
- **Building additions or configuration changes may need to be assessed** as part of determining the optimal number and arrangement of schools.

## Our Analytical Focus

Given these dynamics, our work will center on five connected analytical threads:

1. **Geocoded enrollment mapping** — establishing exactly where students live relative to current boundaries and schools, and identifying spatial mismatches between student locations and school assignments.
2. **Independent enrollment projections** — modeling future enrollment by school, grade, and attendance zone, with explicit treatment of birth rate decline, in-migration, housing yields, and the east-west population shift.

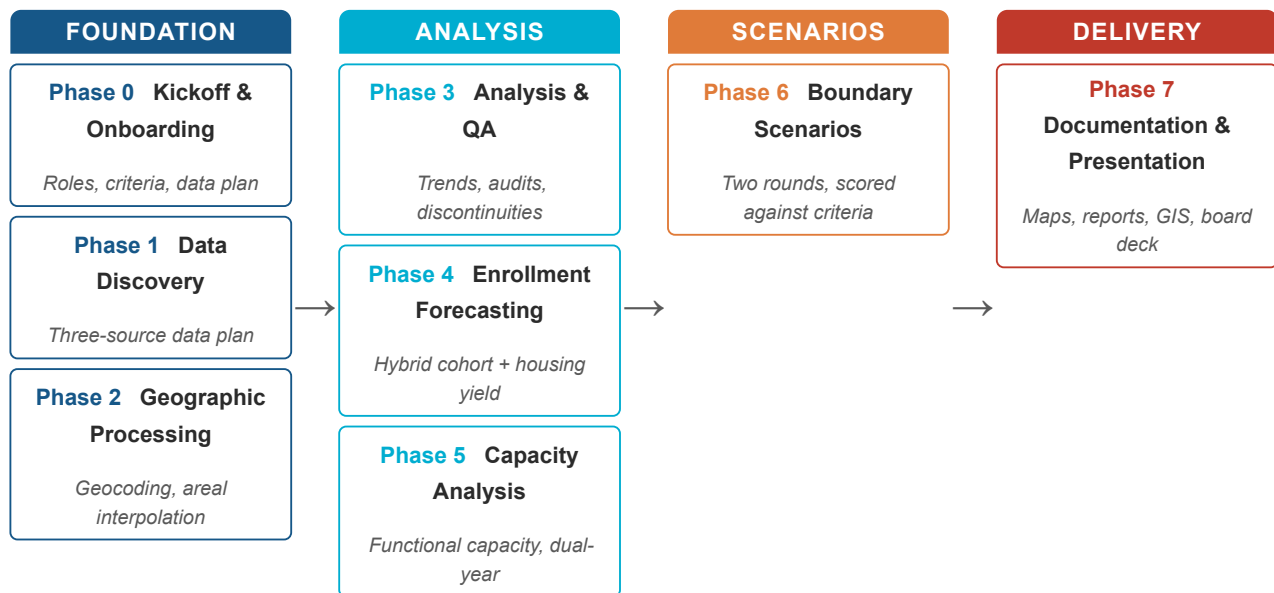
3. **Capacity utilization optimization** — developing scenarios that bring the district closer to balanced utilization across all 18 post-closure schools while respecting geographic, transportation, and community constraints.
4. **Two-round scenario development** — delivering preliminary boundary scenarios by August 31 and refined scenarios incorporating district feedback by September 30, each evaluated against transparent, measurable criteria.
5. **Transportation impact analysis** — ensuring that shared middle/high bus routes remain efficient and that student travel distances and safety are factored into every scenario.

# Technical Approach and Methodology

Our methodology is built around a phased approach that balances analytical rigor with close collaboration. Each phase has clear inputs, outputs, and decision points where we engage with district staff before moving forward. This structure lets us adapt to what the data reveals rather than committing to a rigid plan before we understand the full picture.

The phases are:

- **Phase 0:** Project Kickoff and Onboarding
- **Phase 1:** Data Discovery and Collection
- **Phase 2:** Geographic Processing
- **Phase 3:** Data Analysis and Quality Assurance
- **Phase 4:** Enrollment Projection and Forecasting
- **Phase 5:** Contextual and Capacity Analysis
- **Phase 6:** Redistricting and Boundary Analysis
- **Phase 7:** Documentation, Reporting, and Presentations



*Inputs flow left to right; each phase has decision points where we check in with district staff before proceeding. Detailed phase descriptions follow.*

## Phase 0: Kickoff and Onboarding

Every project begins with a kickoff meeting that brings together all key stakeholders — ours and the district's — to establish a shared understanding of roles, priorities, and the work ahead. For Bedford County, this meeting will coincide with the June 12, 2026 project start date and will cover:

- The project timeline, deliverable dates, and communication cadence
- District stakeholders and their roles in the process
- The Board's priorities and any preferences for how redistricting criteria should be weighted

- Secure data transfer procedures for student records (detailed in the Data Security section)
- A review of current attendance zone boundaries and the November 2025 Forest zone overflow model
- Confirmation of email and Zoom availability for ongoing communication

This meeting sets the pace for the project. Our goal is to leave it with a finalized data request, an agreed-upon schedule, and clear alignment on what success looks like.

## Phase 1: Data Discovery and Collection

We organize the data needed for a redistricting study into three categories:

1. **Data the district provides** — the specific files enumerated in the RFP scope of work
2. **Data we bring** — federal, state, and third-party datasets that we collect and maintain independently
3. **Data that exists but must be sourced** — items held by other agencies (county planning, state vital records, etc.) that neither party has in hand at project start

This three-part framework matters because each category carries different lead times and quality considerations. We begin the discovery process by walking through our data plan with district staff, discussing the strengths and limitations of each source, and identifying any local datasets — housing pipeline information, prior studies, or internal analyses — that could strengthen the work.

### District-provided data (per RFP Scope of Work):

1. A geocoded student roster for the 2026-27 school year on June 12, 2026, and an updated 2026-27 geocoded roster on July 15, 2026 (with student demographic data)
2. Current attendance capacity levels **and targets** for all district buildings
3. Current elementary and middle school attendance boundaries in GIS shapefile format
4. Current GIS shapefile of all subdivisions within the school district
5. The 2026-27 district enrollment projection study produced in-house

Per the district's clarification at the May 6 pre-proposal conference, transportation routing data is maintained in **EZRouting**, which can export GIS data including student ID numbers, with historical records going back to the **2020-21** school year. This four-plus-year history will be valuable for back-testing our analysis and for understanding routing patterns under recent boundary configurations.

**Additional data we may request from the district** (not enumerated in the scope of work but useful if available):

- Prior redistricting analyses or scenario documentation
- Current bus routes and stop locations (beyond what is available in EZRouting GIS exports)
- Home school student counts
- Building permit activity for the most recent years
- Notes from the November 2025 Forest zone overflow model

### Table 1. Data Assets for Bedford County Redistricting

Our Data	District Data
Decennial Census 2010 and 2020 Demographic/Housing Characteristics	Geocoded student enrollment roster (current + prior years) with grade, school, address, and demographic characteristics
American Community Survey 1-year and 5-year estimates	Current attendance zone boundary shapefiles (ES + MS)
State and county population estimates (2010-2024)	Building capacities and targets by school
Subcounty population estimates	Subdivisions GIS shapefile
Virginia birth data by locality	District-produced 2026-27 enrollment projection study
Building permits from Bedford County	EZRouting GIS export (student-keyed transportation data, 2020-21 onward)
Bedford County Comprehensive Plan (2035 update)	Prior enrollment projections and their performance (if available)
LEHD commuting patterns	Prior redistricting analyses (if available)
Residential home sales data	Home school student counts (if available)
Charter and private school enrollment data	
Small Area Income and Poverty Estimates	
Housing development pipeline (approved, planned, under construction) — see Understanding of the Project	

We will work with district staff at kickoff to confirm that the provided files include all fields necessary for our analysis and meet our quality standards.

## Phase 2: Geographic Processing

School redistricting is inherently a spatial problem, and the data needed to solve it rarely arrives in a single, consistent geography. Student records need to be geocoded to precise locations. Census data must be crosswalked to attendance zones. Housing permits need to be located at the parcel level and aggregated to the zones where their enrollment impact will be felt.

For Bedford County, geographic processing will involve:

- Geocoding student enrollment records to latitude/longitude coordinates, validating match rates, and manually resolving unmatched addresses
- Overlaying student locations onto current attendance zone boundaries to establish the baseline enrollment geography

- Reconciling Census block-level demographic data with district attendance zones — a step that requires careful areal interpolation where boundaries do not align
- Mapping approved and planned housing developments at the parcel level and assigning them to current and potential future attendance zones
- Constructing granular analysis zones (sub-attendance-zone units) that give us the flexibility to test boundary alternatives without being locked into the current zone structure

This phase produces the spatial foundation that every subsequent analysis rests on. We take the time to get it right, and we document our geocoding match rates and any assumptions made during geographic disaggregation so the district can evaluate our methods.

### Phase 3: Data Analysis and Quality Assurance

With clean, geocoded data in hand, we turn to a thorough analysis of historical trends and current conditions. For this project, that means examining:

- Enrollment trends by school, grade level, and attendance zone — identifying where growth, decline, and volatility are concentrated
- Capacity and utilization across all 18 post-closure schools
- Charter and private school enrollment in the Bedford County area, which affects the share of resident students captured by the public system
- Population trends at the county, subcounty, and Census tract level — with particular attention to the age structure shifts driving the enrollment-population paradox
- Birth rates and age-specific fertility for Bedford County and surrounding areas
- Domestic migration patterns, especially the east-west flow within the county and in-migration from the Roanoke and Lynchburg metros
- Housing activity: building permits, residential sales, approved developments, and projects in the planning pipeline
- Employment and commuting patterns from LEHD data, which help explain where working families choose to locate

We begin with a documented QA plan for each data source. Our checks range from the straightforward — missing values, out-of-range entries, duplicate records — to expert-driven assessments: likely range analysis, central tendency comparisons over time, and outlier identification. These checks are automated where possible to ensure consistency and fast turnaround, and every finding is documented. When we identify issues, we bring them to district staff with a clear explanation of the problem, its impact on the analysis, and our recommended course of action.

We are especially attentive to discontinuities in the 2020 Census data caused by COVID-19 disruptions, the implementation of differential privacy, and changes in race coding. Our team has developed tools for assessing these issues, including the Census County Assessment Tool (<https://mccourt.georgetown.edu/ccat/>) and the 2020 Census Impossible Block Viewer, built with Georgetown University. These tools allow us to flag where Census small-area data may be unreliable and adjust our methods accordingly.

After QA, we move into analytical work — building the historical picture that informs the projections in Phase 4. This is a collaborative process. We share our findings with district staff as they develop, so that local knowledge can inform our interpretation of what the data is showing, particularly around discontinuities from the COVID-19 period and recent shifts in the housing market.

## Phase 4: Enrollment Projection and Forecasting

Enrollment projections are the quantitative backbone of any redistricting study. They determine not only how many students the district should plan for at each school, but which scenarios are viable over a five- to ten-year horizon and which will require further boundary adjustments within a few years.

**Scope clarification.** Per the RFP, the district has its own in-house 2026-27 enrollment projection study and a defined set of building capacities (HSMM 2002 + EMG 2016) that the district will provide. We will not duplicate that capacity work. What we *will* develop in this phase is an independent enrollment projection, organized at the school, zone, and grade level, that the district can compare against its in-house projection — and use as the demand-side input to the boundary scenarios in Phase 6.

We select from a suite of projection models based on what the data analysis in Phase 3 reveals about the district's demographic dynamics. Our toolkit includes cohort-survival / grade progression models, regression-based forecasting, the housing unit method, land saturation analysis, migration and household composition modeling, time-series methods, and machine learning approaches such as Multiple Adaptive Spline Regression (MARS). Each technique illuminates different aspects of enrollment change. We do not default to a single model; we match the approach to the district's specific conditions.

For Bedford County, we anticipate that a hybrid of cohort-survival and housing unit methods will be most effective. The cohort-survival component captures the birth rate decline and grade-to-grade progression patterns that are driving district-wide enrollment loss. The housing unit component captures the enrollment yield from new residential development in the Forest corridor, around Smith Mountain Lake, and in the Town of Bedford — growth that pure demographic extrapolation would miss. Our published Olathe Public Schools assessment documents the underlying method — hybrid subdivision-based cohort-progression with a grid-level housing overlay — and identifies it as the right approach for districts whose enrollment trajectory is driven by uneven spatial growth as much as by aggregate demographic change. Bedford County fits that profile.

We will also publish forecast accuracy back-testing — comparing prior-year projections against subsequent actuals — as part of the deliverable. This is a practice we documented in the Olathe paper as a frontier indicator (Olathe achieved 99.2% accuracy at the district total in its 2024-25 cycle, broken down by educational level) and one we will replicate here so the Board can see how confident to be in the projections that drive the boundary scenarios.

Projections will be developed at the district-wide and attendance zone levels, with further disaggregation available by grade, school, race, ELL status, and special education status. As part of this work, we will side-by-side our projection against the district's in-house 2026-27 study (and the approximately 8,390 figure for 2026-27 referenced in the RFP), identifying where the two agree,

where they diverge, and the reasons for any divergence. The objective is not to override the district's own forecast but to give the Board two independently produced views that can both inform the boundary work and inform future updates to the district's in-house methodology.

Before finalizing projections, we walk district staff through our model choices, assumptions, and expected accuracy ranges. Projections are tools for decision-making, not black boxes — the district should understand what is driving the numbers and where the greatest uncertainty lies.

## Phase 5: Contextual and Capacity Analysis

Enrollment projections in isolation tell the district how many students to expect. Contextual analysis tells the district what those numbers mean for its buildings, buses, and budgets.

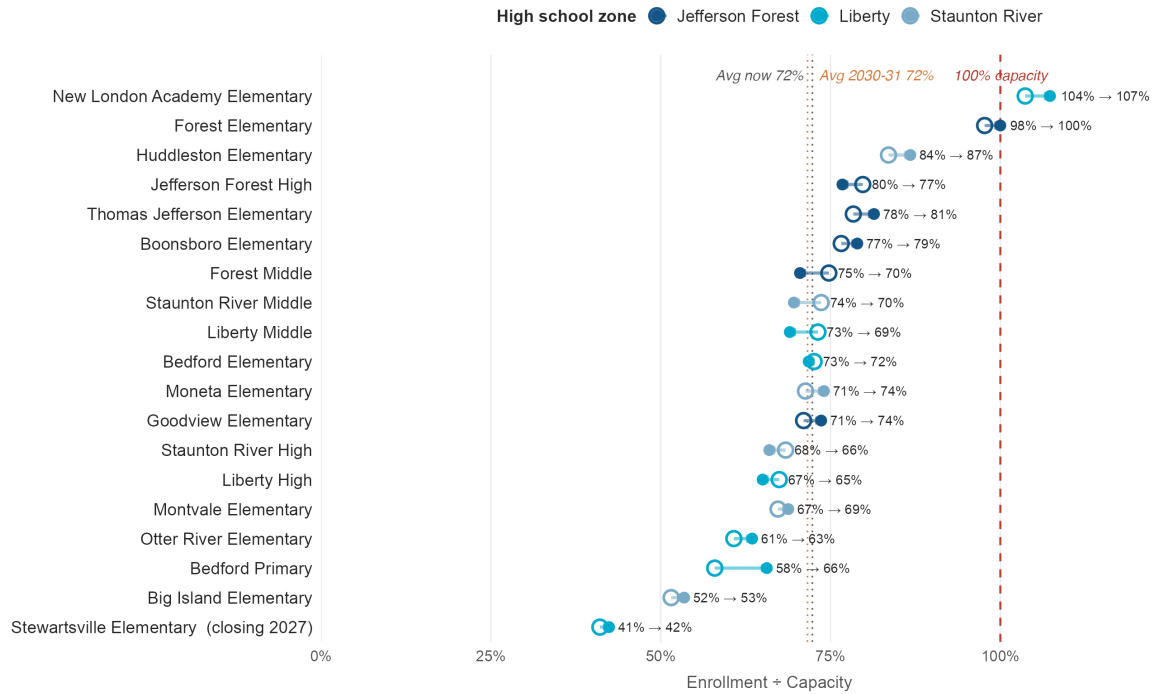
In this phase, we connect the projections from Phase 4 to the physical and operational reality of the district's 18 post-closure schools. Specifically:

- **Functional capacity audit:** Reconcile and update the district's current capacity figures, which currently combine HSMM (2002) and EMG (2016) study outputs with three buildings still recorded at “architectural design” capacity. Our Olathe Public Schools paper documents why functional capacity — the loaded teaching-station calculation that respects program differences across schools — is the right denominator for utilization analysis, and we will apply that same definition here so every utilization figure we publish has a single, transparent basis.
- **Baseline scenario (“do nothing”):** Project capacity utilization at every school under current boundaries, reported at both current year and the end of the forecast horizon, so the Board can see not only where each building stands today but where it is trending. This dual-year reporting is a practice we recommended for Olathe and that we apply consistently across capacity engagements.
- **Closure impact analysis:** Model the reassignment of Stewartville Elementary students to receiving schools (primarily Goodview Elementary) and assess whether the receiving schools can absorb the additional enrollment without exceeding capacity.
- **Optimal building count and configuration:** Evaluate whether the current number of schools is the right number for the projected student population, and whether additions or repurposing of existing space should be part of the redistricting plan.
- **Utilization thresholds:** Work with the district to define acceptable ranges for capacity utilization — both the floor below which a school becomes inefficient to operate and the ceiling above which educational quality and safety are compromised. The Olathe paper reviews how peer districts set these thresholds and why a single utilization number is insufficient as a decision rule.

We present this analysis both in tabular form and spatially on maps, so the district can see geographic patterns in utilization. This dual view — the numbers and the geography — is essential for a district where the core challenge is spatial: too many students in one part of the county, not enough in another.

### Where Each School Is Headed Under a 'Do Nothing' Baseline

Open circle = 2025-26 actual utilization. Filled circle and arrow = projected 2030-31 utilization.



Sources: VDOE Fall Membership 2025-26 (actual) for current enrollment; Weldon Cooper Center for Public Service Demographics Research Group Projections (Feb 25, 2026) for 2030-31 division-by-grade forecast; BCPS Membership Projections 2024-2029, Table 14, for capacities. Forecast assumes each school's 2025-26 share of each grade holds constant — a 'do nothing' baseline that excludes the housing-pipeline yield this

Figure 4: A baseline “do nothing” forecast for BCPS shows where each school is heading by 2030-31 if no boundary changes are made. New London Academy worsens to 107% and Forest Elementary reaches 100%, while most other schools stay near current utilization. The actual Phase 5 deliverable will incorporate the housing-pipeline yield not modeled here — likely pushing eastern schools higher still. Sources: VDOE Fall Membership 2025-26 (actual); Weldon Cooper Center for Public Service, 2026-2030 K-12 Enrollment Projections; BCPS Membership Projections 2024-2029, Table 14 (capacities).

## Phase 6: Redistricting and Boundary Analysis

This is the heart of the project. Drawing on everything developed in Phases 1 through 5, we construct multiple boundary scenarios for the district’s consideration, delivered in two rounds per the RFP timeline:

- **Round 1 (by August 31, 2026):** Preliminary boundary scenarios with maps, PDF reports, GIS shapefiles, and Excel data
- **Round 2 (by September 30, 2026):** Modified scenarios incorporating district feedback and modification requests (due by September 15, 2026)

Redistricting is as much a community process as an analytical one. Local knowledge — which neighborhoods have strong school identities, where natural barriers create practical divisions, which roads are safe for bus crossings — must inform every scenario. We work closely with district staff throughout this phase and structure the criteria to make tradeoffs explicit rather than hidden.

The RFP names three criteria — Enrollment Balance, Transportation Distance & Safety, and Maintain Subdivisions. The list below presents the broader set of **best-practice criteria** we apply to

redistricting engagements, with the three RFP criteria **shown in bold** below. Our list fully encompasses the RFP's three and adds complementary criteria that we have found surface tradeoffs the Board and community will want to see. The final criteria set, and the relative weight assigned to each, will be confirmed through discussion with the district and stakeholders during Phase 0.

- **Balance school facility utilization** (*Enrollment Balance — RFP criterion*) — Pursue equitable utilization across the district at each level (elementary, middle, high), make efficient use of available space, and minimize reliance on mobile classroom units.
- **Maximize busing efficiency and student safety** (*Transportation Distance & Safety — RFP criterion*) — Minimize transportation distance, optimize routes, and prioritize student safety. This is especially critical given the requirement that middle and high school boundaries be identical due to shared bus routes.
- **Maintain subdivision integrity** (*Maintain Subdivisions — RFP criterion*) — Keep housing subdivisions within a single school attendance area at each level so that families in the same neighborhood attend the same school.
- *Account for future growth* — Reserve capacity in high-growth areas, particularly the Forest corridor and around Smith Mountain Lake, reflecting approved and planned housing developments.
- *Proximity* — Assign students to the nearest appropriate school wherever possible.
- *Establish clear feeder patterns* — Build coherent pathways from elementary through middle and high school, so families can anticipate their children's school trajectory.
- *Minimize student impact* — Reduce the number of students who must change schools, and where changes are unavoidable, consider legacy enrollment provisions for students in their final year at a school.
- *Consider economic, cultural, and ethnic diversity* — Ensure that boundary decisions do not concentrate disadvantage or create segregative effects.
- *Use natural and major road boundaries* — Draw zones along roads, waterways, and other features that make geographic sense, minimize unsafe crossings, and keep bus routes contained within natural corridors.
- *Keep stakeholders informed* — Ensure that the Board, district staff, and the community can follow the logic of each scenario and understand the tradeoffs involved.

Each scenario will be scored against these criteria with quantitative metrics — utilization balance, travel distance distributions, number of students reassigned, feeder pattern integrity — so that the Board and community can compare options on an objective basis.

### Sample Scenario Comparison Matrix

Each scenario scored against the redistricting criteria, with the underlying metric shown in each cell.

	A: Minimum disruption	B: Capacity-balanced	C: Pipeline-aware
Balance school facility utilization	Range 41–104%; 4 schools >90%	Range 60–88%; 0 schools >90%	Range 65–85%; 0 schools >90%
Account for future growth (housing pipeline)	Westyn / Townes not modeled	Pipeline added at horizon only	Pipeline-yield model in baseline
Proximity (avg miles to school)	Avg 3.6 mi; +0.1 mi vs current	Avg 4.2 mi; +0.7 mi vs current	Avg 3.9 mi; +0.4 mi vs current
MS/HS shared bus efficiency	Existing routes preserved	8 new shared routes needed	3 new shared routes needed
Coherent feeder patterns	1 split feeder retained	3 split feeders introduced	0 split feeders
Minimize student impact (students reassigned)	~310 students moved	~1,250 students moved	~780 students moved
Subdivision integrity	2 subdivisions split	11 subdivisions split	3 subdivisions split
Demographic balance	FRL share unchanged	FRL share ±2 pp at 4 schools	FRL share ±1 pp at all schools
Natural / major-road boundaries	Existing alignment retained	Crosses 2 secondary roads awkwardly	Aligned with US 221 / Rt 122

Performance Below avg Average Good Excellent

Illustrative example. Scenario configurations and metric values are stylized for proposal purposes; actual Bedford County scenarios will be developed in Phase 6 against criteria refined with the district during Phase 0.

Figure 5: Illustrative example of how scenarios will be scored against the redistricting criteria. Each cell carries the underlying metric value (utilization range, miles, students reassigned, etc.), and color encodes performance from poor to excellent. Bedford County’s actual scenarios will be developed in Phase 6 against criteria refined with the district during Phase 0.

A public-facing example of our redistricting work is available at: <https://daa-labs.co/HorseheadsCSD-Districting/>

## Phase 7: Documentation, Reporting, and Presentations

The value of a redistricting study is determined not only by the quality of the analysis but by how well it communicates. A technically sound scenario that cannot be explained to a parent at a Board meeting is not useful.

Our documentation philosophy reflects this. We produce written materials at two levels: technical documentation that details every data source, assumption, and methodological choice for the district’s internal use, and plain-language summaries and visualizations designed for Board members, families, and the broader community. Maps, charts, and tables are designed for clarity and accessibility, not just analytical completeness.

Final data products will be delivered in the formats specified by the district, including Microsoft Excel, CSV, GIS shapefiles, geodatabases, and PDF reports. We can also provide a secure, web-based dashboard for ongoing reference to the redistricting analysis.

For Bedford County, this phase culminates in the Board presentation on October 8, 2026. We will prepare comprehensive presentation materials — including scenario summaries, maps, comparative data, and our recommendations — and present them in person, remaining available for Board questions and discussion. We are experienced in presenting redistricting analysis in public settings and understand the importance of clear, even-handed communication when boundary changes affect families across a community.

## Technology and Tools

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Our technical stack is purpose-built for demographic analysis and school redistricting:

- **GIS and Spatial Analysis:** We use a combination of QGIS, R (with the `sf` and `terra` packages), and Python geospatial libraries for geocoding, boundary analysis, spatial joins, and map production. Shapefiles are produced in industry-standard formats compatible with ArcGIS, QGIS, and other platforms.
- **Statistical Analysis and Modeling:** R is our primary analytical language, used for enrollment projection models, demographic analysis, and data quality checks. We use packages including `tidyverse`, `forecast`, and custom modeling code developed through our prior school district engagements.
- **Map Production:** High-resolution maps are produced using R (`ggplot2` with custom themes) and QGIS, rendered to PDF at print quality with street-name-level detail. Interactive web maps are built using Leaflet and hosted on secure platforms for district review.
- **Data Visualization and Reporting:** Reports are produced using Quarto with custom templates, generating polished PDF documents with integrated maps, charts, and tables. Presentation materials are produced in PowerPoint-compatible formats.
- **Data Management and Security:** Student data is managed in encrypted, access-controlled environments. File transfer uses Box.com, an enterprise-grade platform approved by multiple school districts. All code and analysis is version-controlled for reproducibility.

# Public Engagement and Communication

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## Communication Plan

Our team will be available to Bedford County Public Schools via email and Zoom throughout the project. We commit to responding to district communications within one business day. Regular check-in meetings — the frequency to be agreed upon during Phase 0 — will provide structured opportunities for progress updates, preliminary findings, and course corrections.

Christopher Dick will serve as the primary point of contact. All three principal demographers will be available for substantive discussions as the work requires.

## Community Engagement

The RFP specifies a formal Board and community presentation on October 8, 2026. We will prepare comprehensive presentation materials and attend in person to present our recommended scenarios, walk through the analysis, and answer questions. Our team has experience presenting redistricting analysis in public settings — work that requires not just analytical competence but the ability to explain tradeoffs clearly and listen to community concerns.

The Stewartsville closure history — the original vote, the lawsuit, the re-vote, and the public response captured in local coverage — makes clear that BCPS will be best served by a process that visibly engages the community at each substantive step, not only at the final presentation. Our published Olathe Public Schools paper reviews community-engagement practices across peer districts and identifies a standing **Boundary Study Group** paired with a documented **multi-option community-engagement protocol** (where multiple boundary scenarios are presented in parallel, with their tradeoffs surfaced, rather than a single recommendation defended) as a frontier practice. Should BCPS determine that additional community engagement would strengthen the process — information sessions in each high school zone, an advisory group of parents and staff, public-facing interactive scenario tools (similar to our Horseheads CSD work), or a structured comment period between Round 1 and Round 2 — we are prepared to design and support those activities. These options can be priced as add-on services.

## Project Management

Our phased methodology provides natural checkpoints for quality assurance and progress reporting. Milestones will be tracked against the timeline below, and any potential delays will be flagged immediately with an explanation and proposed mitigation. We do not wait until a deadline is missed to surface a problem.

## Project Timeline and Deliverables

The following timeline maps directly to the milestones specified in the RFP:

Phase	Milestone	Date	Deliverable
0	Project Begins / Data Receipt	June 12, 2026	Kickoff meeting; data transfer protocols established
1–2	Data Collection & Geographic Processing	June 12 – July 15, 2026	Data inventory; geocoding; initial spatial analysis
—	Updated Student Roster Received	July 15, 2026	Updated data incorporated into analysis
3–4	Analysis, QA, and Forecasting	July 15 – August 15, 2026	Enrollment projections; capacity analysis
5–6	Round 1: Preliminary Scenarios	August 31, 2026	Maps, PDF reports, GIS shapefiles, Excel data
—	District Modification Requests	September 15, 2026	—
6	Round 2: Modified Scenarios	September 30, 2026	Revised maps, PDF reports, GIS shapefiles, Excel data
7	Board Presentation	October 8, 2026	Recommended scenarios presentation
—	Board Vote	November 12, 2026	—

### Project Timeline Mapped to RFP Milestones

Eight overlapping phases. Round 1 scenarios Aug 31, Round 2 Sep 30, Board presentation Oct 8.

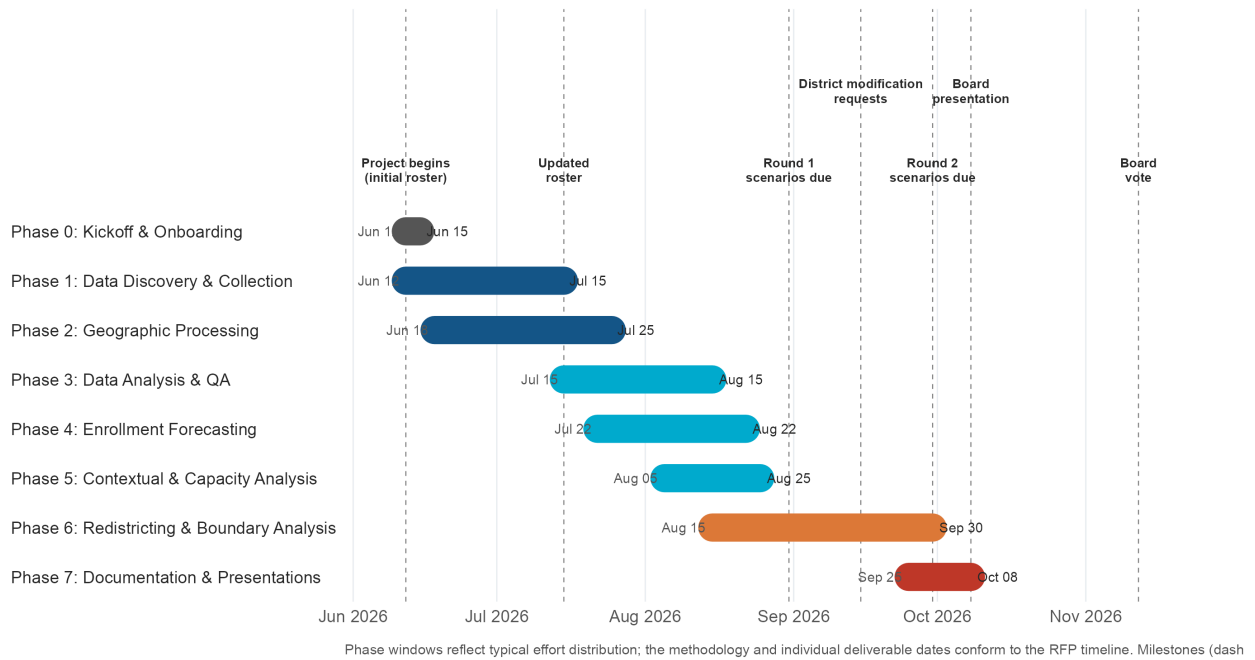


Figure 6: Project schedule. Phase windows show typical effort distribution; the dashed vertical lines mark RFP-specified milestones (initial roster, updated roster, Round 1 due, district modification requests, Round 2 due, Board presentation, Board vote).

# Deliverables Specification

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For each scenario in Round 1 and Round 2, we will deliver the three end products specified in the RFP Scope of Work:

## 1. Written Reports in PDF Format of Each Map Scenario

Each scenario report will include:

- **(a) A high-resolution map identifying street names**, in PDF format, with street-level detail sufficient for community members to locate their homes and identify school assignments. Each map set will include a district-wide overview and detailed area-level views, clearly depicting proposed attendance zones, school locations, major roads, and relevant geographic features.
- **(b) A summary of the data analysis** of the map using the district's criteria and metrics. The summary will cover enrollment projections, capacity utilization by school, transportation impact analysis, demographic composition, and a scenario comparison matrix highlighting tradeoffs.

## 2. GIS Shapefiles for Each Boundary Map

Boundary shapefiles for each scenario, delivered in standard formats compatible with ArcGIS, QGIS, and other GIS platforms. Attribute tables will include school assignments, enrollment counts, and capacity metrics for each zone.

## 3. Raw and Summary Data in Microsoft Excel Spreadsheets

Summary and detail-level spreadsheets organized by school, grade, and attendance zone, presenting the data analysis using the district's criteria and metrics. Data will include enrollment, capacity, utilization, demographic breakdowns, and transportation metrics, structured for easy comparison across scenarios.

## Additional Deliverables (Beyond the RFP Scope)

The following items are not specified as required end products in the RFP, but we typically include them at no additional cost because districts have found them useful for governance, communication, and the years of operations that follow boundary changes. Any of them can be omitted at the district's preference.

- **Board presentation package** for October 8, 2026 — slide deck with scenario summaries, maps, data visualizations, and our analysis of recommended options. We will present in person and remain available for Board questions and discussion.
- **Interactive web-based scenario explorer** (similar to our [Horseheads CSD work](#)) — a public-facing tool that lets Board members, district staff, and community members compare scenarios side by side and look up individual addresses. Pricing for this option is in the Cost Proposal section.
- **Methodology documentation memo** capturing the forecasting and capacity methods used, so the district can re-run or update the analysis in future years.
- **Annual update option** — recurring re-projection and boundary-impact monitoring in subsequent years, priced separately.

## Sample Work Products

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The following samples from prior engagements are included with this proposal:

1. **Sample boundary maps** from our redistricting work with Brunswick County Public Schools (NC), demonstrating the resolution, clarity, and labeling standards we apply to mapping deliverables.
2. **Sample data analysis formats** showing how we present enrollment, capacity, and scenario comparison data for district decision-makers.
3. **Sample report excerpts** from prior demographic studies, illustrating our documentation approach and analytical depth.

Two examples of our published work are available online:

- **Olathe Public Schools Best Practices Paper (April 2026):** A peer-benchmarked review of enrollment forecasting, capacity measurement, and building-level utilization analysis. Demonstrates the analytical scaffolding, documentation standards, and peer-comparison method we apply to district engagements. <https://app.daa-labs.com/olathe-2026/>
- **Horseheads Central School District interactive redistricting tool:** A public-facing scenario explorer that lets district leadership and community members examine proposed boundaries directly. <https://daa-labs.co/HorseheadsCSD-Districting/>

*[Note: Sample work products to be included as attachments with the printed proposal]*

## References

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**Reference 1: Brunswick County Public Schools, NC** Contact: Craig Eckert Title: Director of Capital Projects and Planning Email: ceckert@bcswan.net (Craig's preferred method) Phone: (910) 782-5078 Timeline: November 2023 – Present

Scope: Brunswick County hired us to understand enrollment growth driven by rapid residential development, identify where new schools were needed, and redraw attendance zone boundaries to balance enrollment across the district. We were initially engaged for one year of enrollment forecasts and attendance zone updates; the district has since extended our contract for up to three additional years of annual updates. This ongoing relationship — balancing enrollment in a county experiencing pronounced geographic shifts in its student population alongside new residential construction — is directly analogous to the work Bedford County needs.

**Reference 2: Lexington School District 1, Lexington, SC** Contact: Clark Cooper Title: Chief Operations and Student Services Officer Email: ccooper@lexington1.net Phone: (803) 821-1029 Timeline: June 2024 – Present

Scope: Lexington District 1 engaged us to develop enrollment forecasts and compare them against current building capacities to identify where overcrowding issues were likely to emerge. We combined traditional cohort-based approaches with student yield from development and in-migration analysis to capture how both organic growth and planned residential construction would affect enrollment over time.

**Reference 3: Norfolk, MA Public Schools** Contact: Dr. Ingrid Allardi Title: Superintendent Email: allardi@norfolk.k12.ma.us Phone: (508) 528-1225 Timeline: February 2024 – May 2024

Scope: Norfolk Public Schools contracted us to develop a ten-year enrollment forecast (2024-2034) by school and grade. Our analysis considered historical enrollment patterns, school choice trends, new construction activity, and migration and birth patterns at both the local and state level.

*Additional references are available upon request. A completed Attachment F (Contractor Reference Sheet) is included with this submission.*

# Insurance Documentation

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Demographic Analytics Advisors maintains valid professional liability insurance. A current certificate of insurance is included with this submission.

*[Note: Insurance certificate to be included as attachment]*

# Cost Proposal

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We are providing a fixed-price proposal for the scope outlined in the RFP.

## Base Scope ([FEE TBD])

This fixed fee covers all work described in this proposal:

1. **Data collection and processing** — Coordinating with Bedford County Public Schools to obtain internal data; collecting and processing all local, state, and third-party datasets; geocoding student records.
2. **Enrollment analysis and forecasting** — Developing enrollment projections by school, grade, and attendance zone, including an independent review of the district's existing projections.
3. **Redistricting analysis** — Two rounds of boundary scenarios (Round 1 preliminary, Round 2 modified), with all maps, reports, shapefiles, and data products specified in the RFP.
4. **Report and documentation production** — Data analysis reports, enrollment projection documentation, capacity utilization analysis, and scenario comparison materials.
5. **Board presentation** — Preparation and in-person delivery of the October 8, 2026 presentation in Bedford, VA.
6. **Project management** — All coordination, check-in meetings, and communication with the district team throughout the engagement.

Also included in the base fee:

- All virtual meetings with the district team needed for data access, review, and coordination (no limit)
- Up to 1 in-person trip to Bedford, VA for the Board presentation
- Up to 4 formal virtual briefings with district leadership, the Board of Education, or other stakeholders

## Optional Add-On Services

1. **Additional in-person trips** beyond the included Board presentation (\$4,000 per trip, up to 4 briefing meetings per trip)
2. **Additional virtual briefings** beyond the included 4 (\$500 per briefing)
3. **Annual enrollment projection updates** for subsequent school years (\$5,000 per update)

## Payment Schedule

We propose milestone-based payments tied to deliverable completion:

- 25% upon contract execution and project kickoff
- 25% upon delivery of Round 1 preliminary scenarios (August 31, 2026)
- 25% upon delivery of Round 2 modified scenarios (September 30, 2026)
- 25% upon delivery of Board presentation and final documentation (October 8, 2026)

# Additional Distinguishing Information

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## Virginia-Based Firm

DAA is headquartered in Vienna, Virginia. We understand the Commonwealth's regulatory and governance framework for public school divisions, including the Virginia Public Procurement Act and relevant sections of the Code of Virginia governing school operations and closures.

## Specialized Focus

Unlike general-purpose consulting firms that offer redistricting as one service among many, DAA is built specifically around demographic analysis, enrollment forecasting, and school boundary planning. Our methodologies are purpose-built for K-12 applications. Our team understands the particular data quality challenges of school enrollment records. We are attuned to the community dynamics that surround redistricting decisions. And our deliverables are designed for the people who use them — school boards making policy decisions, administrators managing operations, and families trying to understand where their children will go to school.

## Census Bureau Expertise

Two of our three principals are former Census Bureau staff who worked directly on the methods used to produce population estimates and projections for the United States. This gives us an unusually deep understanding of the federal demographic data that forms the foundation of any enrollment projection. We know not just how to use Census, ACS, and other federal data products, but how they are made — their assumptions, their error structures, and where they should and should not be trusted. This is particularly important in the post-2020 environment, where differential privacy and COVID-19 disruptions have introduced data quality challenges that many analysts do not fully appreciate.

## Collaborative, Not Black-Box

We do not disappear for three months and return with a set of recommendations. Our phased methodology is designed so that the district is a partner at every stage — reviewing data, validating assumptions, providing local knowledge, and understanding the tradeoffs before scenarios are finalized. This approach produces better analysis, because local expertise catches things that data alone cannot, and it produces better outcomes, because the district owns the process and its results.

## Clients Who Come Back

Several of our clients have extended their engagements beyond the original scope. Brunswick County Public Schools extended from one year to four. Others have returned for annual updates or new phases of work. We take this as the strongest possible signal that our work delivers value and that districts find us good partners to work with.

# Data Security and FERPA Compliance

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This project will require access to geocoded student enrollment records protected under the Family Educational Rights and Privacy Act (FERPA), 20 U.S.C. § 1232g. We take these obligations seriously and have established procedures that meet the requirements of every district we work with.

## Data Handling

All student data will be transmitted via Box.com, an enterprise-grade encrypted file sharing platform that has been approved by multiple school districts for this purpose. Once received, student data is stored on encrypted, access-controlled systems accessible only to project team members. No student data is shared with third parties under any circumstances. All analysis is conducted on secured workstations with current security software and operating system patches.

## FERPA Compliance

Our team has completed FERPA training and maintains current knowledge of student data privacy requirements. We will execute a data sharing agreement with the district that complies with FERPA's "studies" exception (34 CFR § 99.31(a)(6)). All published reports and maps present data in aggregate form only — no individual student will be identifiable in any deliverable. Student-level records are used solely for geocoding and boundary analysis.

## Data Destruction

Upon project completion or contract termination, we will securely destroy all student-level data in our possession and provide written certification of destruction to the district. Aggregate analytical outputs will be retained only as needed for the contracted deliverables.

## Staff Training

All DAA personnel assigned to this project have received training on student data privacy, including FERPA obligations, data minimization principles, and incident response procedures.

# Required Attachments

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The following completed and signed attachments are included with this submission:

- **Signature Page** (RFP Page 2) — signed, with SCC ID and addendum acknowledgements
- **Attachment E** — Additional Terms and Conditions (reviewed and accepted)
- **Attachment F** — Contractor Reference Sheet (minimum 3 references)
- **Attachment G** — Contractor Qualification Certificate
- **Attachment H** — Affidavit Certifying Compliance with VA Code § 22.1-296.1
- **Attachment I** — Virginia State Corporation Commission