

**AN ANALYSIS OF DEMOGRAPHICS, COMMUNITY
GROWTH PATTERNS AND PROJECTIONS OF
ENROLLMENTS IN THE CENTRAL BUCKS SCHOOL
DISTRICT**

Request for Proposals Response



Submitted by:
Vincent Cannizzaro, Executive Director
Pennsylvania Economy League, Central PA, LLC
PO Box 27
Camp Hill, PA 17001
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August 10, 2026



PENNSYLVANIA ECONOMY LEAGUE

Letter of Transmittal

PO Box 27 ♦ Camp Hill, PA 17001

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Data-Driven Policy. Stronger Communities.

August 10, 2026

Kevin Spencer
Directors of Operations – Central Bucks School District
20 Welden Drive
Doylestown, PA 18901

Dear Mr. Spencer:

The Pennsylvania Economy League, Central PA Division LLC (PEL), EIN# 23-1352264, is pleased to provide the enclosed response to the Central Bucks School District's request for proposal (RFP) for Demographic Enrollment Projections, Facility Use Efficiency, and Long-Range Planning Services. We believe the proposal satisfies the School District's requirements and that it is consistent with your needs and expectations as detailed in the recent RFP.

For the past 90 years, PEL has been the Commonwealth's leading nonprofit, nonpartisan civic infrastructure building organization. PEL is uniquely qualified to support school district engagements. PEL brings extensive statewide school district experience, a proven record of helping districts move from planning to implementation, and a multidisciplinary team with expertise in enrollment projections, financial forecasting, and school district operations. PEL has executed 200 enrollment projections and similar projects for school districts across the Commonwealth of Pennsylvania.

PEL will initiate this project upon favorable action by the Central Bucks School District administration and school board and complete each pertinent section in accordance with the time frames delineated in the RFP. As Executive Director of PEL, I have the authority to negotiate and execute the project contract.

If you or other school district officials have any questions after reviewing the proposal or wish to receive additional information, please contact me by phone at 717-798-1096. You can also reach me by email at vinny.cannizzaro@pelcentral.org. Thank you for the opportunity to respond to your RFP. We look forward to working with you.

Sincerely,

Vincent Cannizzaro
Executive Director

August 2026

Profile Of Proposer The Pennsylvania Economy League

The Pennsylvania Economy League Central PA LLC (PEL) is a nonprofit, nonpartisan 501(c)(3) public policy think tank that is under the umbrella of the Pennsylvania Economy League Inc., a statewide organization founded in 1936.

As a nonprofit firm specializing in Pennsylvania local and state government, we provide education, research, and technical assistance to elected officials, municipal managers, and other stakeholders on a wide range of local government issues. PEL is based in Harrisburg with staff and subcontractors located across the state.

PEL has undertaken more than 200 projects of this type for Pennsylvania school districts, and these studies have proved to be accurate and reliable and of great value to these districts in making important decisions with respect to future classroom, staffing, program, and operational needs.

PEL's studies of demographics, housing and related activities, and public school enrollments involve a labor-intensive process that normally includes a review of population trends; birth patterns; migration of families and children; the proportion of children enrolled in non-district schools and educational programs (for example, private/parochial schools, home schooling, charter schools, cyber schools, full-time area career and technical centers, full-time Intermediate Unit programs, state owned schools, full-time consortium-operated alternative schools, juvenile correctional facilities, etc.); and historical enrollment trends. In addition, we analyze the local housing market (for example, annual number of building and/or occupancy permits issued for new and/or rehabilitated housing units, housing developments, turnover in existing housing stock and other factors capable of influencing enrollment change).

Based on this review, which includes discussions with municipal and school officials, and as necessary, county and/or regional planners, real estate professionals, and others, PEL projects districtwide enrollments by grade for the next 10 years. The resulting report serves as a base for informed decision-making with respect to future building, staffing, and operational needs.

School District Enrollment Project References

Project with Clickable Link	Reference	Description
Boyertown Area School District	Dr. Scott Davidheiser Superintendent sdavidheiser@boyertownasd.org	Provide 10-year enrollment projections for the school district based on historical trends in grade progression, district-wide demographics such as birth rates and in-migration, as well as community development factors including residential building projects.
Pennridge School District	Dr. Bradley Palmer Assistant Superintendent for Administration bpalmer@pennridge.org	Provide 10-year enrollment projections for the school district based on historical trends in grade progression, district-wide demographics such as birth rates and in-migration, as well as community development factors including residential building projects.
Harrisburg School District	Dr. Marcia Stokes Chief Financial Officer MStokes@hbgsd.us	Provide 10-year enrollment projections for the school district based on historical trends in grade progression, district-wide demographics such as birth rates and in-migration, as well as community development factors including residential building projects.

In 2024 and 2025, PEL completed enrollment projections for:

- Boyertown Area School District – 6,378 students in 9 schools
- Harrisburg School District – 6,583 students in 13 schools – This was an updated projection following our 2021 study.
- Hazleton Area School District – 13,141 students in 13 schools
- Pennridge School District – 5,994 students in 11 schools
- Wallingford-Swarthmore School District – 3,738 students in 5 schools – This was an updated projection following our 2022 study.

School District Proposal Biographies

Vinny Cannizzaro, Ph.D., MPP, PEL Executive Director

Vinny, PEL's executive director, has a broad research background in local government public policy. He will be the principle/project executive for this initiative. Vinny's work resulted in a new residential tax to support open space preservation in York County and was instrumental in the creation of new roles in state government to support the outdoor economy. Cannizzaro has also researched affordable housing, gun violence, homelessness and local government decision making.

Prior to PEL, Vinny served as founding director of York College's Arthur J. Glatfelter Institute for Public Policy and its Master of Public Policy and Administration program. In his role, Vinny partnered with state and local elected officials, nonprofit organizations and the business community to develop data-driven research, analysis and policy development.

In addition to York College, Vinny previously worked as a diversity specialist for Johns Hopkins Medicine and as a health policy associate for the Maryland Department of Health and Hygiene. Vinny earned a Ph.D. in public policy from the University of Maryland, Baltimore County, a Master of Public Policy from the Johns Hopkins Bloomberg School of Public Health, and a Bachelor of Arts in political science from the University of Central Florida. He is a board member of the South-Central Assembly and an ALICE Research Advisory Committee member for the United Way of Pennsylvania.

Patricia Moorhead, PEL Director of Financial Data and Analytics

Patty conducts research and provides advisory services on municipal and school district management, budgeting and finance; capital budgeting and planning; personnel and labor relations; and related matters. She has completed numerous school district enrollment studies, fact-finding reports, and salary schedules, and has worked on school district consolidation/merger projects. Patty will serve as the demographer/enrollment projection specialist, as well as the transportation analyst, for this initiative.

Patty is adept at pulling together financial and demographic data gleaned from numerous sources to give a clear picture of public finances. Her work assists her in identifying trends across the commonwealth. She has performed financial reviews of numerous municipalities and school districts of all sizes.

Prior to PEL, Patty held various positions at Frontier Communications including senior marketing analyst, general accounting/tax supervisor, budget administrator, and assistant general accountant. Her duties included: marketing, customer segmentation, sales targeting and campaign tracking; finance, strategic planning, forecasting and ROI modeling; and accounting, general ledger, accounts payable and tax issues.

She earned a BS in accounting from Wilkes University, Wilkes-Barre. She has completed course work in the state Department of Community and Economic Development's School of Municipal Government and is a member of the Government Finance Officers Association.

Lynne Shedlock, PEL Director of Operations

Lynne works in the roles of project manager, research associate and communications director. As project manager, she is responsible for PEL reports completed under the state's Strategic Management Planning (STMP) program for local governments. As part of that process, Lynne develops recommendations and a five-year strategy for municipalities encompassing initiatives for finances and operations. She also has experience in municipal merger and consolidation, home rule charter development, and economic development strategies.

Her communications work focuses on statewide local government issues and trends. She has prepared position papers, committee testimony and commentaries on the state's Act 47 distressed municipalities program, pension reform, municipal finances, regionalization, local government reform and related issues. Lynne assists with PEL's civic leadership education through the programming of events that are designed to inform business leaders, government officials and the general public on public policy issues. She was the lead author and researcher on PEL's recent, "It's Not 1965: State Tax Laws Fail to Meet Municipal Revenue Needs."

Prior to PEL, Lynne served as communications director for Lackawanna County, where she was press secretary, handled all facets of county marketing and communications, and served as a representative of the Commissioners' Office. She also worked for 20 years as a municipal government and education reporter, receiving several statewide and national awards for her reporting. Lynne earned a BS in journalism from Syracuse University and a certificate from Penn State Harrisburg in economic development. She is a member of the Pennsylvania Economic Development Association; secretary and board member of Scranton Tomorrow, a volunteer economic and community development organization; and vice chairman of the Lackawanna County Literacy Committee.

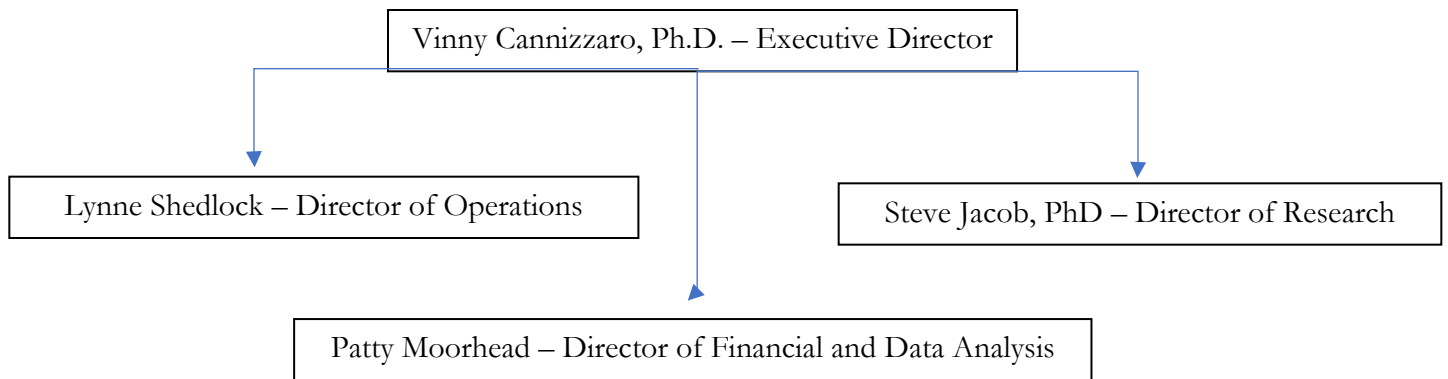
Steve Jacob, Ph.D., PEL Director of Research Initiatives

Steve, PEL's Director of Research Initiatives, has extensive experience in community-based research projects. He will serve as the GIS and mapping analyst for this initiative.

Steve is an expert in applied social research, rural sociology, and social indicators and metrics. Steve's work has resulted in significant policy implications and outcomes related to community-based initiatives and priorities, rural economic development, agricultural preservation, and fishery management.

Steve earned a Ph.D. and Master of Science in rural sociology from the Penn State University, and Bachelor of Arts in sociology from Salisbury State University. He has authored or co-authored over 80 peer-reviewed academic papers, book chapters, and reports, as well as presented at over 40 academic conferences and invited workshops.

Organizational Chart



**A Proposal for
An Analysis of Demographics, Community Growth Patterns, and Projections of Enrollment
in the Central Bucks School District**

I. PURPOSE

The purpose of this proposal is to define the study's objectives and the scope of services to be provided by the Pennsylvania Economy League, Central PA, LLC, to the Central Bucks School District relative to a comprehensive analysis of demographics, housing and related activities, and other relevant factors and the projections of aggregate districtwide K-12 enrollments in the district, and the terms and conditions under which they would be provided.

II. OBJECTIVE

The objective of the proposed study is to determine the future patterns of K-12 enrollments in Central Bucks School District with a view to providing a base of reliable data for use by administrators, board members, and the public in making important decisions regarding the district's future classroom, staffing, program, and operational needs.

III. SCOPE OF SERVICES

The Pennsylvania Economy League will perform the following:

- A. Review population trends, birth patterns, migration patterns, the proportion of children involved in non-district schools and educational programs (for example, private/parochial schools, home schooling, charter schools, cyber schools, full-time area career and technical centers, full-time Intermediate Unit programs, state owned schools, full-time consortium-operated alternative schools, juvenile correctional facilities, etc...), and historical K-12 enrollment trends.
- B. Review housing and related activities including the annual number of building and/or occupancy permits issued for new and/or rehabilitated housing units during the recent past; new housing developments and related activity recently completed and underway or planned; turnover in existing housing; the relationship of children to housing units; the amount of undeveloped land available in the district; infrastructure considerations; and other factors capable of influencing growth.
- C. To the extent possible, organize data on planned dwelling unit construction or real estate trends by various attendance areas in order to give the district a clear indication of where planned new housing unit activity—by number and by type—will be concentrated over the next several years. Similarly, population and birth data will be presented for the district.

- D. Provide aggregate districtwide K-12 enrollment projections by grade and current grade alignment for the next 10 years. These projections will incorporate the recent experience in the district with respect to cohort survival rates and pupil progression and will be strongly influenced by the various demographics, birth, housing, and related information that will be analyzed as part of Work Items A and B.
- E. Provide K-12 enrollment projections by school and aggregate cohorts (K-6, 7-9, and 10-12) and by grade and current grade alignment for the next 10 years. These projections will incorporate the recent experience in the district with respect to cohort survival rates and pupil progression and will be strongly influenced by the various demographics, birth, housing, and related information that will be analyzed as part of Work Items A and B.
- F. Provide K-12 enrollment projections by municipality and aggregate cohorts (K-6, 7-9, and 10-12) by grade and current grade alignment for the next 10 years. These projections will incorporate the recent experience in the district with respect to cohort survival rates and pupil progression and will be strongly influenced by the various demographics, birth, housing, and related information that will be analyzed as part of Work Items A and B.
- G. Provide K-12 enrollment projections and aggregate cohorts by attendance boundaries and transportation routes and provide any recommendations regarding changes to feeder patterns, school attendance boundaries, or grade configuration. These projections will incorporate the recent experience in the district with respect to cohort survival rates and pupil progression and will be strongly influenced by the various demographics, birth, housing, and related information that will be analyzed as part of Work Items A and B. In addition, this analysis will incorporate travel time, routing efficiency, and student movement.

IV. METHODOLOGY

PEL projects future enrollment based on a variety of internal and external factors impacting the overall population growth rate, and student retention within the school districts.

Specifically, PEL will review 10 years of historical district data including:

- Pupil/grade-level progression rate – This rate is calculated on a year-by-year basis using current year enrollment divided by prior year enrollment. This factor provides a baseline understanding of how students matriculate through the public educational system and the longitudinal impacts on grade-level enrollment.
- Birth rates – PEL assesses monthly birthrates within municipalities to gauge long-term enrollment trends. When coupled with rates of public school enrollment, birth rates forecast long-term kindergarten enrollment trends.
- Migration patterns – Migration patterns influence overall, municipal, school district, and individual school population growth. When coupled with other factors, migration patterns provide an underlying indication of the number of new students moving into the school district, as well as an indication of the number of students that will matriculate into the public school system.

- Housing trends – By assessing current and future housing development, PEL is able to estimate the potential number of individuals, families, and students that will occupy new residential housing units, and projection an estimation of the total number of students that will enter public school system overall.

Each of these factors influences the overall population and projection trends within a specific school district. When combined, and reoriented in various capacities, these data points utilize historic trends to accurately predict future landscapes. In addition, PEL provides a range of trends, allowing for a variety of “best-case” and “worst-case” scenarios to be tested and addressed.

Our analysis of enrollment projections occurs at the holistic school district level, the individual school level, and the municipal level. As such, we are able to leverage the information collected and analyzed to evaluate transportation routing, as well as catchment areas and feeder patterns. These additional data points are contingent upon reliable enrollment data and projections.

V. ACCURACY

Accurate projections of public school enrollments for periods of five to 10 years or more are difficult, at best, because of so many unpredictable variables. Furthermore, such efforts are highly dependent on accurate and complete data from state, county, school, and municipal officials, as well as the candid views of developers, real estate professionals, and others. The resulting projections cannot rise above inaccurate and incomplete data.

The difficulty of generating accurate projections increases as the focus moves from a large base (such as a state) down to counties, to local school districts, and to individual buildings within districts. Generally, the larger the area involved, the greater the accuracy in terms of the amount of percentage deviation from the projection because differences in smaller areas within the larger area tend to balance each other out.

The best way to assess the potential accuracy of PEL’s projections of public school enrollments is by comparing the projections in other districts that relied on similar methodologies with the actual enrollments that resulted. The mechanism for doing this is known as the Mean Absolute Percentage Error (or MAPE—which is also known as the Mean Absolute Percentage Deviation).

$$MAPE = \frac{1}{n} \sum_{t=1}^n \left| \frac{A_t - F_t}{A_t} \right|$$

The MAPE and its companion, the Mean Absolute Deviation (which measures absolute values rather than percentage deviation), are the most widely used statistical measurement of

average error in quantitative forecast models and indicator of expected accuracy. Use of the percentage deviation is preferable to the absolute deviation given that figures reflect school districts with enrollments ranging from about 1,000 to over 20,000, so there would be an issue of scale when dealing with absolute values; this is not the case with percentages.

The calculation of the MAPE involves taking the difference between the actual enrollment figure for a given year in a given district and the figure PEL projected for that district in that year, dividing it by the actual figure, and then converting it to a percentage. The resulting figures for each year in all districts are then summed—without regard to signs—and divided by the number of data points.

The reason the signs are disregarded is that in data sets such as these where the differences or deviations may be higher or lower than the actual figures, the failure to do so would result in the negative differences canceling out those that are positive. This would result in a misleadingly low error calculation. Eliminating the signs avoids this potential problem.

Since 1986, on more than 200 occasions, PEL has examined demographics, housing and related activity, and enrollment trends in Pennsylvania school districts and, using the techniques employed in this analysis, generated projections of enrollments covering a 10-year period. We regularly evaluate the accuracy of these projections by determining the MAPEs.

Projections generated more than 10 years ago have all 10 years on which to judge accuracy; some projections allow only eight or nine years' experience to be viewed; some six, five, and so forth; for others there has been only one year of actual figures on which to make judgments regarding PEL's accuracy.

Based on actual enrollments through the 2023-24 school year (and based on 1,030 data points) the average MAPE for the first five years of projections is just over $\pm 3.5\%$ (essentially, about $\pm 1.6\%$ the first year, $\pm 2.5\%$ the second year, etc., and by the fifth year, the figure is about $\pm 5\%$). For years six through 10, our calculations are based on 970 data points and the difference between the projected and actual figures averages ± 8.5 percent.

VI. DATA REQUEST

The materials we would like the district to furnish include:

- October 1, Public School Enrollment Reports for school years 2015-16 through 2026-27 which were due at the Department of Education by October 15.
- For school years 2015-16 to 2026-27, consistent, compatible, and reliable aggregate figures by grade for district children enrolled in private/parochial schools, charter schools, cyber schools, home schools, full-time comprehensive area vocational-technical schools, full-time Intermediate Unit special education programs (even if educated in district classrooms assigned to the Intermediate Unit), other out-of-

district special education programs, state-owned schools, full-time consortium-operated alternative schools, and juvenile correctional institutions.

- A map of the district identifying all elementary attendance areas and each municipality.
- Any lists maintained by the school district of permits for new housing issued by the district's member municipality—2010 to the present.
- Any lists maintained by the school district of current approved and proposed subdivision activity in the district's member municipality.
- Any impact statements from developers, major employers, PennDOT, etc., relative to significant events affecting the district.
- The names and emails of key representatives of the district's member municipalities in order to facilitate the collection of additional housing development information. An email introduction would be welcome.

VII. TIMELINE

Estimated Timeline for Completion	
September 24, 2026	• Approval of contract
On or around October 1, 2026	• Kick-off meeting
November 2, 2026	• Draft enrollment projections and utilization analysis • Contingent upon timely submission of enrollment numbers to PDE on October 1, 2026
On or around November 9, 2026	• Review of enrollment projections
On or around November 20, 2026	• Revisions to enrollment projections
On or around November 30, 2026	• Draft scenarios, transportation analysis, and facility planning implications
On or around December 7, 2026	• Review of scenarios, transportation analysis, and facility planning implications
On or around December 21, 2026	• Revisions to scenarios, transportation analysis, and facility planning implications
On or around January 18, 2027	• Final deliverables and presentation

VIII. FINAL REPORT

The final report presented to the Board of School Directors will include PEL's findings and conclusions. PEL will provide the district with a print-friendly electronic copy of the report in PDF form, which can be distributed electronically or printed. Printed copies can be provided at cost, if necessary. PEL will make itself available for a single public meeting/presentation on the substance of the draft or final report.

IX. DATA TO BE FURNISHED TO PEL

All information, data, reports, records, and other documents necessary for carrying out the above items of work are to be furnished to PEL without charge by the district and/or its agent(s). A full data request will be provided upon acceptance of the proposal. If essential information cannot be provided to PEL by the district within 30 days of the project initiation date, the timetable may have to be altered accordingly. Similarly, failure of the district, its agents, or its municipalities to provide all data requested may preclude PEL from completing all phases of this project as proposed. Any charges to PEL by third parties for services or materials deemed necessary for the successful completion of this examination will be passed through to the Central Bucks School District—provided PEL receives the prior written approval of the district.

X. COOPERATION OF BOARD, STAFF, AND/OR AGENT(S)

It is understood that the successful completion of the study in the time proposed herein will require the full cooperation of the board, its staff, and/or its agent(s), and representatives of the district's member municipalities, and others whose data and judgments are needed, and that such cooperation will be provided to PEL. To help ensure this cooperation, when necessary and required, the district agrees to send a letter of introduction to appropriate representatives, such as the district's member municipalities, within two weeks of the initiation of the project and to provide PEL with the names, phone numbers, and addresses of appropriate individuals in order to facilitate interviews via Zoom or teleconference. If in-person meetings are required, reasonable travel costs will be invoiced separately, with receipts and documentation provided.

XI. TIME OF PERFORMANCE

PEL will make every effort to issue a full draft report within four-five months of the project's initiation. Any inordinate delay in authorizing PEL to proceed with this project may jeopardize our ability to complete it within the time frame outlined, as would any delay caused by failure to receive necessary data in a timely manner or by any other circumstances that are beyond our control.

XII. THE ORGANIZATION AND ITS STAFF

The Pennsylvania Economy League has been in the business of assisting state and local government officials and the general public in Pennsylvania since 1936. PEL is an independent nonprofit corporation, organized to achieve more effective and economical state and local government in Pennsylvania. To accomplish its purpose, PEL conducts research and analyses and provides technical assistance involving government programs, organization, management, and financing, and makes the results available to both public officials and citizens to aid them in arriving at informed and intelligent public policy decisions.

XIII. WITHDRAWAL OF PROPOSAL

PEL reserves the right to withdraw this proposal if it is not favorably acted upon by the district within 60 days.

XIV. MODIFICATIONS

This agreement can be modified only with the written approval of both parties.