

NEPC Review: The Broken Pipeline: Advanced Education Policies at the Local Level (Thomas B. Fordham Institute, April 2024)



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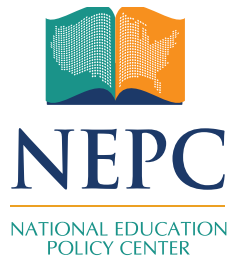
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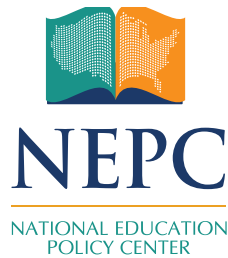
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Summary

A recent report from the Thomas B. Fordham Institute offers an up-to-date national description of the current picture of policies and practices at the district level designed to provide what the report calls advanced and gifted education. The report is based on data from a survey conducted in 2023. Its stated goal is to provide a better understanding of district policies to improve the provision of advanced education programs by examining the breadth of district policies for such programs. Issues addressed include identification, program types, curriculum, teacher support, and predictors for policy implementation. The report constructs an “advanced education index” that gauges the prevalence of advanced education programs and the comprehensiveness of district policies. Based on this index, it concludes that US district policies for advanced learners are subpar. However, given the data limitations and problems with the key assumptions in the report’s methodology, this conclusion and the report’s associated policy suggestions are overstated.



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I. Introduction

In recent years, there have been ongoing debates on the national approach to nurturing students with high achievement capability and on the validity of gifted and talented programs.¹ This conversation is further complicated due to its close association with equity concerns and the role of education in enhancing upward economic mobility. Despite the longstanding controversy regarding these advanced programs, there is little credible evidence on their effectiveness.² One study, in fact, suggests that gifted programs have no overall impact on test scores of gifted students.³ Regardless of these findings, several reports by the Fordham Institute recommend district policies supporting advanced education programs that can achieve both “academic excellence and greater educational equity.”⁴

In April 2024, the Thomas B. Fordham Institute published *The Broken Pipeline: Advanced Education Policies at the Local Level*, authored by Adam Tyner, national research director at the Thomas B. Fordham Institute.⁵ The report is based on the Fordham Institute National Working Group’s purported efforts to develop a robust research, policy, and practice agenda that will improve the educational opportunities of gifted and talented students, especially from Black and Hispanic, as well as economically disadvantaged, backgrounds.⁶ Although various topics regarding advanced programs are addressed, the main purposes of the report are to examine the prevalence of advanced education policies in US school districts and to identify the predictors for the “comprehensiveness” of district policies, based on the premise that the suggestions made by the previous National Working Group’s report are optimal in obtaining the twofold goal. Because one of the report’s objectives is “to determine whether districts had in place policies that aligned to any of the National Working Group’s recommendations,” I consider subjects raised from both this report and the previous report⁷ to produce a comprehensive review.

II. Findings and Conclusions of the Report

The report is organized around five key findings:

1. Universal screening is a good policy, and most districts use it to identify advanced learners. However, most districts do not adopt other good practices, such as using local norms.
2. Advanced education in most elementary and middle schools is limited.
3. A majority of high schools offer many advanced programs.
4. District demographics are not good predictors of district policies for advanced learning.
5. Using its “Advanced Education Index,” the report finds that “America’s school district policies for advanced learners are mediocre at best.”

Based on these findings, the report asserts that there exists a sizeable leak in the pipeline after early elementary school, when most advanced learners are identified. These students have additional exposure to advanced courses in high school. Thus, few educational provisions occur between the two periods.

III. The Report’s Rationale for Its Findings and Conclusions

The report’s rationale for its findings and conclusions is based on surveys “designed by Fordham Institute staff to capture key dimensions of advanced education policies as reported by the National Working Group on Advanced Education.”⁸ Survey responses were collected from 581 district and charter school administrators. Then the survey results were adjusted to be representative of large and medium districts and charter schools. The report also used publicly available data from the US Department of Education, as well as the data on the prevalence of Advanced Placement and participation in AP courses from the Department of Education’s Office of Civil Rights. Its conclusions are based on its analysis of the lack of alignment between the National Working Group’s policy objectives and school leaders’ responses to its survey.

IV. The Report’s Use of Research Literature

There are two main issues with the report’s use of research literature. First, researchers of gifted and talented programs assert that the benefit of the programs is either minimal or nonexistent.⁹ The report ignores this side of the argument, focusing instead only on literature supporting that those programs are beneficial for targeted students and emphasizing the consequent need to expand them to include more diverse groups of students. Second, the

literature shows large heterogeneity in student performance depending on race/ethnicity.¹⁰ Gifted and talented programs disproportionately enroll White and Asian students compared to Black and Hispanic students.¹¹ Importantly, the benefits of a gifted program largely differ by racial/ethnic group. Black and Hispanic students have greater program effects than other groups, so the comprehensiveness of an advanced education program can be more beneficial for them.¹² However, the report only uses a binary paradigm of race (White vs. non-White) in the analysis, masking the uniqueness of each racial/ethnic group found in literature. Therefore, the report does not make appropriate use of the existing knowledge on advanced learning for different groups of minority students as it pertains to policy recommendations.

V. Review of the Report's Methods

A variety of methodological concerns limit this report:

1. **Simplistic analysis:** The report mostly utilizes descriptive analysis, often comparing the simple means across different categories, and offers a quick interpretation indicating that one is higher ranking than the other(s) even when the survey responses are not mutually exclusive. Without statistical testing of these differences using the standard errors, the report's findings could be misleading.
2. **Implications of nonrepresentative sample:** The research surveyed randomly selected district and charter school administrators in charge of advanced education. Nearly 600 administrators responded out of the contact pool of 3,659 districts. Even though the district selection was randomly made, the low response rate increases the likelihood that nonrandom components would lead to biased results. For example, if there are systematic differences between respondents and nonrespondents, the analysis based only on the respondents will suffer from sampling and/or selection bias, as the sample is not the representative of "large and medium districts and charter school organizations" that this research claims.
3. **Exclusion of small districts:** The report focuses on large and medium school districts with at least 1,534 students but did not provide information on how this number was determined. Most districts are small but are excluded from the sample. Because of this, the application of the reports' findings for a "wider and more diverse pipeline for advanced learners" are significantly limited. The report should at least conduct a separate analysis for small districts.
4. **Inattention to specialty schools:** Unlike traditional public schools that serve every student within the school boundary, some charter schools are specifically established to serve gifted and talented students. Since this type of charter school became more popular in early 2010s, pooling both districts and charter schools may produce unreliable estimates. A separate analysis for each school type will provide a more accurate picture of advanced education in public schools.
5. **Data limitation:** The data used in the report do not contain information essential for

the identification and enrollment of advanced learners. Those missing variables include education level of parents, students' health status, and overall political spectrum of districts.¹³

6. Questionable construction of primary variable: The report constructs an "Advanced Education Index" to evaluate its survey findings. Although the report claims to base this index on the Fordham Institute's prior work,¹⁴ there is no indication of the empirical basis for this index.

VI. Review of the Validity of the Findings and Conclusions

The validity of the findings and conclusions of this report are compromised due to several factors. These include murky terminology, a lack of evidence-based indicators, and issues with the data sources and analyses.

Murky Terminology Describing the Targeted Student Population

First, the report uses the term "advanced" instead of "gifted and talented" to describe programs for high-performing and/or high-ability students. However, "high-performing" and "high-ability" are not the same concept. One could be a high-performing student without high ability, with the aid of private tutoring, more practice, or other forms of help outside of school. Secondary students are more likely to utilize these tools to improve their academic performance than students in the lower grades. A high-ability student may not be a high-performing student for various reasons. For example, many gifted and talented students with neurologically atypical conditions (such as autism and Asperger syndrome) may have difficulty in taking standardized tests.¹⁵ Thus, these two groups of students are likely to be very different and grouping them into one "advanced" category and implementing the same intervention raises a concern.

Validity of the Report's "Advanced Education Index"

Second, there is no attempt to ensure that the Advanced Education Index (AEI) reflects empirical evidence, nor does the report conduct a formal test to check if the AEI is a valid measure for the comprehensiveness of district policy. In creating this index, the report is based on no statistical foundation, such as principal component analysis, and the points assigned to each item seems somewhat arbitrary. To gauge the validity of the index (or the policy suggestions made by the report), an examination of the relationship between the index and the proportion of minority students among advanced learners may be needed.

Issues With Data Limitation

For the analysis of the predictors of district policies, the report simply divides each district demographic into quartiles, computes the average AEI for each quartile, and compares the

AEI across different quartiles. The report then concludes that none of the district demographics is a good predictor. However, other analyses that provide more information could have been carried out given that both demographics and the index are continuous variables (e.g., a multiple regression of index on all these demographics with clustering standard errors at the state level). When exploring predictors for district policies, the report does not include other key potential demographics. In particular, the socioeconomic status of districts or family income plays an important role in the racial/ethnic gap in student performance, so the claim that the district demographics have no prediction power appears to be too rushed.¹⁶

Analyses

The survey questionnaires used to construct the Advanced Education Index are not based on a robust literature review, but on *a priori* policy objectives. For example, the report places skipping grades (or early entry to kindergarten for similar reasons) as one of the high-impact items for the index. However, it is well-known that there are some potential drawbacks of skipping grades.¹⁷ Students may find it difficult to maintain their academic excellence in an upper grade, which may discourage them, causing them to lose enthusiasm in learning.¹⁸ Emotional maturity is also important to adapt in a new environment, so students without proper social skills may struggle in the classroom.

The report strongly suggests that the districts should adopt “local norms,” which allows districts to compare students’ performance to peers within the same district or school for identification purposes, rather than a state or national benchmark. This approach can potentially help identify talented students in high-poverty districts, but it may also raise equity concern in other districts, where there may be more gifted and talented students. Suppose there is a class full of high-performing students, and only 10% of those students get an A if using the “local norm” (called “relative grading”). This grading policy does not reflect the true understanding of the course materials of students, and students with an A- would feel that the grading policy is unfair.¹⁹ Thus, adopting the local norm may be inappropriate and unsuitable practice for certain districts.

Additionally, some clarification will be helpful in better understanding the findings. For example, in Figure 2, the report states that “the broken line at 800 points helps to visualize that few districts have highly comprehensive policies.” It is unclear how the 800 cutoff was selected, when the districts at the top 10 percentile have a score of 690. In addition, 140 out of 581 districts did not answer all the questions on the survey, so the report was not able to produce an index for those districts that did not complete the survey. This is a quite sizeable proportion, and there should be a discussion on the potential problems arising from this sample attrition.

These various issues, combined with data limitations, weaken the conclusions of the report and the validity of policy suggestions.

VII. Usefulness of the Report for Guidance of Policy and Practice

The report provides updated findings on the prevalence of advanced programs in the nation. However, with the current data and study design, the report only offers descriptive evidence on the extent of advanced education programs, based on what appears to be a nonrepresentative sample. Because the analysis is far from causal, the policy implications should be taken with caution. The results of this study, therefore, offer no solid base for policy suggestion as to whether more investment should be made for the expansion of the advanced programs to increase diversity of the advanced learners. Moreover, this study fails to provide clear evidence for any policy intervention for students of color and students of economically disadvantaged backgrounds, which was the underlying object of improving the advanced educational programs.

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