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Local Norms and Gifted/Talented Identification in Arkansas

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Summary Points

- Many student groups are under-represented in Arkansas’ G/T programs, including:
 - students from low-income households,
 - students receiving special education,
 - students or who are learning the English language,
 - Hispanic students
 - African-American students.
- Using local norms did not increase the rates of identification for these student racial and programmatic groups.
- Although local norms did not increase the diversity of students identified as G/T, it can help districts align the needs of G/T students to the programmatic offerings.

Local Norms and Gifted/Talented Identification in Arkansas

In this brief, we summarize recent research from OEP examining if using school- or district-level norms from state assessments would increase the racial and programmatic diversity of Arkansas students identified as Gifted and Talented (G/T). Using ten years of administrative data to analyze the outcomes of a local norms approach compared to the current G/T identification strategies, we find no consistent evidence that using a local norms approach for G/T identification would improve racial or programmatic diversity.

Introduction

The National Association for Gifted Children states “Students with gifts and talents perform—or have the capability to perform—at higher levels compared to others of the same age, experience, and environment in one or more domains.” Giftedness exists in every demographic group but is not always reflected in the students receiving Gifted and Talented (G/T) services. Nationally, the process for identifying students as G/T has introduced concerns about the underrepresentation of minority students including but not limited to, students of color, students with limited English proficiency, and students from low-income families.

Prior research regarding G/T identification in the state of Arkansas found that high-achieving students from low

This Brief

Introduction	P.1
Study Design	P.2
GT Identification	P.2
Analysis and Results	P.3
Conclusion	P.4

-income households are 50% less likely to be identified as G/T by the 4th grade than similarly high achieving students from more advantaged backgrounds (Tran et al, 2022). Using an identification process that identifies students who are performing at high level relative to their local context could potentially increase the diversity of G/T students (Peters et al., 2019). In this study, we model the use of a local norms approach compared to Arkansas current G/T identification strategy to investigate whether a new method would improve the identification rates of underrepresented students in Arkansas.

During the 2019-20 school year, 8% of Arkansas students were identified as G/T. Figure 1 shows the demographic and programmatic characteristics of the G/T student population in Arkansas compared to all students enrolled in Arkansas public schools in 2020-21.

As presented in Figure 1, only 49% of the students identified as G/T qualify for free- or reduced-priced lunch (FRL), a proxy for low household income, while roughly 64% of Arkansas students overall qualify for FRL. Students receiving special education services (SPED) and English language learners (ELL) are also underrepresented in G/T compared to the state population of students. Black and Hispanic students are identified as G/T at rates lower than their per-

Figure 1
Characteristics of G/T students and all students, Arkansas, 2020-21

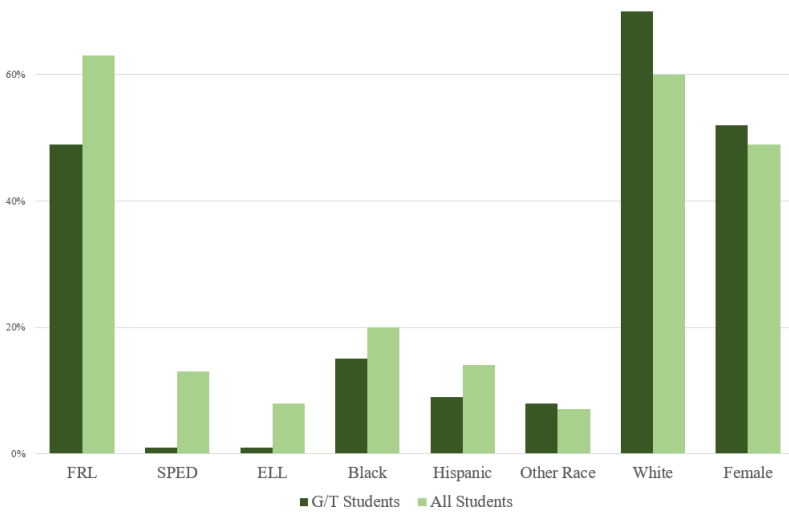


Table 2
Characteristics of 3rd grade students and those identified as G/T by 4th grade, all cohorts

	3 rd grade	4 th grade
	All	G/T
% FRL	65.6	43.0
% SPED	10.4	1.9
% ELL	7.7	3.3
% Black	20.8	16.6
% Hispanic	11.7	6.9
% Other race	4.9	5.5
% White	62.9	70.6
% Female	49.0	53.6

centage of the population as well. Females and white students, however, are more likely to be identified as G/T.

Study Design

Anonymized student-level data from the Arkansas Department of Education for 3rd and 4th grade students from the 2009-10 to 2018-19 school years were utilized for this analysis. In Arkansas, students take their first state assessment in 3rd grade and most G/T students are identified by 4th grade. The data included students’ demographic information, programmatic characteristics, and scores on 3rd grade state assessment in mathematics and literacy.

G/T identification rates by student demographic and programmatic characteristics were examined for nine cohorts. Each cohort started with the entire student population in 3rd grade, then focused on the same group of students who were identified as G/T through the current Arkansas identification process the following school year. The information presented in Table 2 shows the average G/T identification rates for all nine cohorts included in the analysis. As with the statewide identification rates from Figure 1, students participating in FRL, Special Education, or English learner programs are under-represented in the population of 3rd graders that are identified as G/T in 4th grade.

While not unique to Arkansas, the under-representation in G/T programs of certain student groups may be related to the current G/T identification process in Arkansas. The goal of this study is to model the use of local norms for identification and compare the identification rates of different student groups to the population that is identified using the current G/T identification process.

G/T Identification

Current:

Arkansas’ current G/T identification process begins with a student being nominated for consideration. Students can be nominated by a variety of people including parents, teachers, counselors, community members, or even themselves. Following nomination, the school’s G/T coordinator collects data on the student.

Data collected must including two objective pieces, typically represented by grades and test scores, and two subjective pieces. One of the subjective measures must include a creativity assessment. Following the data gathering process, a committee chaired by a trained G/T specialist and at least five professional educators convenes to decide if the student should be placed in G/T.

The current G/T identification process raises concerns of subjectivity in placement with unknown factors leading to a student’s placement. Additionally, this process could contribute to the issue of underrepresentation of students if families or educators do not know how the nomination process works (McBee et al., 2016).

Local Norms:

Using local norms for G/T identification emphasizes the context of students’ schools. This approach was developed to help identify students who are relatively high achieving within their school, but may be overlooked if compared to students from other schools. Differing from Arkansas’ current identification process, in a local norms approach, students are ranked and selected for G/T services at the local level based on an overall score, which can include a variety of measures. This process eliminates the need for student nomination to the G/T program. Figure 2 illustrates the current G/T identification process and the local norms approach.

Analysis

As a first step, we needed to determine the available resources in each school. The number of 4th grade G/T students was calculated to determine how many G/T “seats” were available.

Next, we generate a composite score for each student using mathematics and literacy achievement data from the 3rd grade state assessment. We then rank-order students from each cohort within the school by the composite score and identify students from the ranked list as G/T based on local norms until the number of currently available G/T seats are filled.

For example, if a school had 10 4th grade students identified as G/T, we use 10 as the number of G/T “seats” available. We then rank students within school

by composite score and identify the 10 students who have the highest composite as G/T under the local norms.

Finally, we compare the local norm G/T identification rates for various student demographic and programmatic groups with the actual G/T identification rates that resulted from the current identification process in the school. This comparison was done to identify any differences regarding demographic or programmatic characteristics. This process was repeated for each of the nine cohorts of 3rd to 4th grade students.

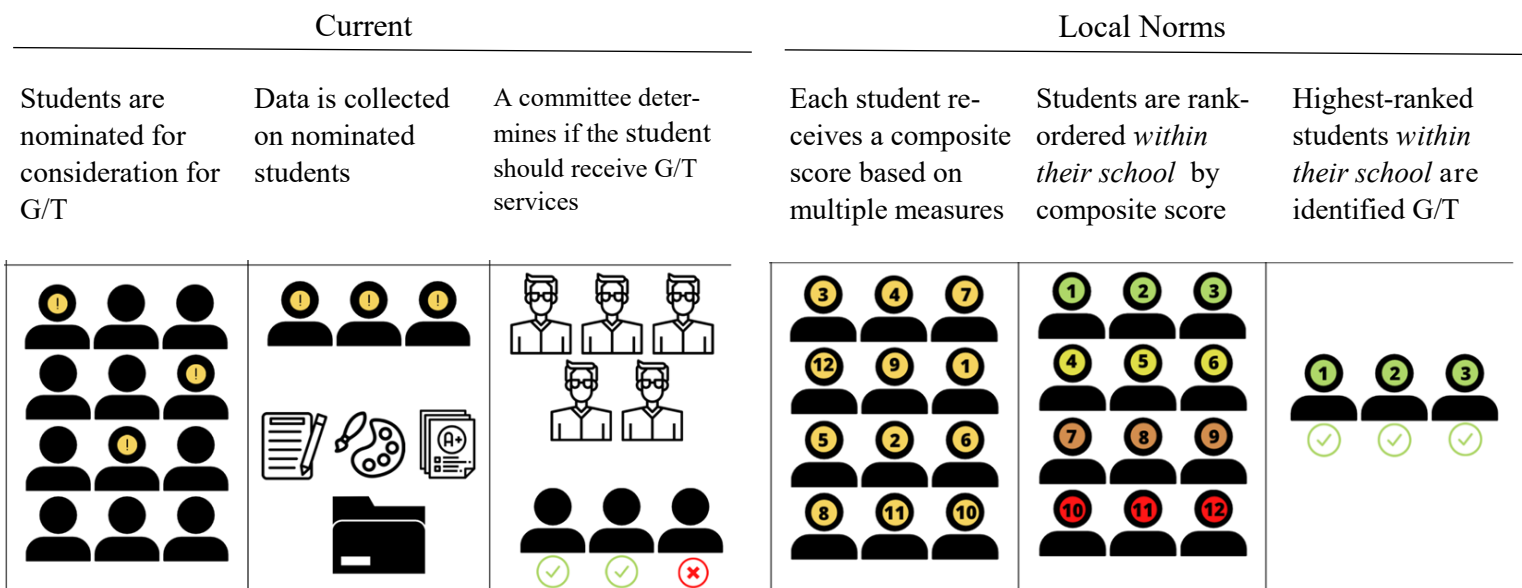
Results

Across the nine cohorts in the analysis, we find no consistent evidence that using local norms would increase the racial and programmatic diversity of students identified as G/T throughout the state. We did find, however, that using the local norms would increase the percentage of female students that would be identified as G/T in six of the nine cohorts. Female students are already over-represented, however, in G/T programs in Arkansas.

Results from the most recent cohort, however, showed that using district norms would slightly increase the G/T identification rate of students receiving special education services, students with limited English language proficiency, and female students.

The researchers also conducted a pooled analysis, meaning, they combined all the data gathered to examine overall trends. The results show that using a

Figure 2
G/T Identification Models: Current vs. Local Norms



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local norms approach, on average, decreased the proportion of special education students identified for G/T by 1.2%. However, the proportion of female student identified increased by 4.5%. Besides these two results, there were no statistically significant differences between students identified for G/T using the local norms approach and student identified for G/T using Arkansas' current selection process.

Conclusion

In this study, researchers examined if the use of a local norms approach would improve the G/T identification rates of students, particularly students of different races and varying programmatic needs. This study did not find consistent evidence to support the success of a local norms method in Arkansas. While it appears that a local norms identification process might not change the diversity of the students identified as G/T, the use of this method in tandem with universal screenings may help limit some of the human error and bias that is introduced when nominating and selecting students for G/T services.

Using a universal screener, such as the required state assessment, removes the need for students to be nominated to be considered for G/T services, which we feel is a good thing! In Arkansas, schools are required to use at least four measures in student identification. Although we only used math and literacy achievement to model the use of local norms in our research, multiple measures could be collapsed into the comprehensive score. A word of caution about combining measures, however: all scores that are being combined need to be on the same scale. It will not be productive to combine a score of 300/500 with a score of 9/10, as the larger number will far outweigh the smaller value measure. A solution is to standardize all scores prior to creating the composite score.

We suggest that using a universal screener and local norms approach would assist school in identifying a broader range of students with the academic aptitude to benefit from advanced programming. The services that G/T programs offer should align with the needs of identified students. Therefore, we urge school districts in Arkansas to consider incorporating aspects of the local norms approach to identify their G/T students.

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