

FAILING HIGH ABILITY STUDENTS

UNDER-IDENTIFICATION OF LOW-INCOME, EMERGING BILINGUAL, AND STUDENTS OF COLOR IN COLORADO GIFTED EDUCATION

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Table of Contents

- I. INTRODUCTION**
- II. COLORADO - A LEADER IN GIFTED EDUCATION**
- III. IDENTIFICATION PROBLEMS**
- IV. COLORADO'S IDENTIFICATION PROCESS**
- V. METHODOLOGY**
- VI. COLORADO SNAPSHOT**
 - A. DISPARITIES - LATINO STUDENTS**
 - B. DISPARITIES - BLACK STUDENTS**
 - C. DISPARITIES - LOW-INCOME STUDENTS**
 - D. DISPARITIES - EMERGENT BILINGUAL STUDENTS**
- VI. POLICY RECOMMENDATIONS**
- VII. FURTHER RESEARCH**
- VIII. REFERENCES**

Introduction

When it comes to gifted education, all is not created equal.

Research shows that low-income, students of color, and Emergent Bilingual (known as 'English Language Learners in Colorado state policy) students are less likely than their white, Asian, or wealthy peers to be enrolled in gifted programs.

In fact, newly released data from the Office of Civil Rights at the U.S. Department of Education shows that, as of 2014, black and Latino students comprised 42 percent of the student population in schools with gifted programs, but only 28 percent of students enrolled in those programs.¹

Similar disparities also exist for Emergent Bilingual students - they represent 11 percent of students in schools with gifted programs, but only 3 percent of students enrolled in those programs.²

What causes these disparities?

It certainly isn't the fact that these students are disproportionately less likely to be gifted.

The famous Study of Mathematically Precocious Youth - a nearly 50 year study of students identified as mathematically gifted in the 1970s - with only 8.6 percent of students from highest income bracket, shows that giftedness is not only a trait of the wealthy.³

One reason for disparities is that low-income, students of color, and Emergent Bilingual students are less likely to live in wealthy school districts that have gifted programs. Data from the Early Childhood Longitudinal Study show that only 83 percent of black students nationwide have access to gifted programs as compared to 91 percent of white students and 90 percent of Asian students.⁴

Another is the way districts go about identifying students for participation in gifted programs. Too many rely on parent advocacy and teacher nominations - two processes that can impede traditionally disadvantaged students.



Colorado - A Leader in Gifted Education

Colorado is one of the few states that has made gifted education a priority. In fact, funding for gifted education has grown by 121.3 percent, from \$5.5 million in 2000 to \$12.2 million in 2016.⁵

Additionally, Colorado gifted education advocates were successful in passing a series of laws that improved education for the state's high-ability students.

The best example is Colorado's "Exceptional Children's Education Act." Adopted in 2007, it mandated the identification of and services for gifted students, defined the different ways students can qualify for gifted programming, created an early access policy for academically advanced young learners, and outlined the rules administrative units must follow to provide a quality education for their gifted students.⁶

Colorado is commonly seen as one of the leaders in gifted education. In fact, the Jack Kent Cooke Foundation's last state report card gave the state a "B-" when it came to its policy environment - the highest grade any state received.⁷

It is also one of the few states that financially supports districts' use of universal screening. The state's Gifted Education Universal Screening and Qualified Personnel Grant helps districts to:

- ★ Conduct universal screening no later than second grade;
- ★ Conduct a second screening at middle school in conjunction with the creation of the Individual Career and Academic Plan, or ICAP; and/or
- ★ Employ a qualified person to administer the gifted program, implement the program plan, or provide professional learning to increase the capacity of educators to identify and program for gifted students and family partnerships.⁸

The latest data show that all of the state's administrative units, or AUs, received some portion of the \$1.8 million grant.⁹



Identification Problems

In most states, participation in gifted programs is heavily influenced by two factors: parent advocacy and teacher identification.

This is troubling for a variety of reasons.

First, relying on parents to advocate for their children to participate in gifted programs can disadvantage students from economically and ethnically diverse backgrounds.

Studies show that parents of low-income and students of color are less likely to advocate for their children to enter gifted programs, not because they aren't passionate about their children's education, but often times because their work schedules, lack of institutional knowledge, cultural barriers, or strained financial resources preclude them from doing so.¹⁰

Second, research shows that teachers might not be the most objective judges of which students are gifted.

One study, written by Vanderbilt University's Jason Grissom and Christopher Redding, investigated which factors affect the likelihood that students are enrolled in gifted programs. Analyzing National Center for Education Statistics data for more than 14,000 elementary school students in districts with gifted programs, Grissom and Redding found that among students with the same high standardized test scores, black students were less likely to be assigned to gifted programs in both math and reading - even after controlling for factors like the student's socioeconomic status.¹¹

Interestingly, the only factor that increased the likelihood that a black student would be enrolled in a gifted program was if the teacher who referred the student was also black.

Why are white teachers less likely to refer black students to gifted programs, even when those students are performing at the same academic level as their white peers? The phenomenon is likely due to what researchers call implicit biases - unconscious, split-second judgments that humans make when they encounter people or things.¹²

Implicit biases are partially responsible for "the Belief Gap" - the distance between what students can achieve and what their teachers believe they can achieve. This gap is captured in the findings of a study by Seth Gershenson, Stephen B. Holt, and Nicholas W. Papageorge. Their research examined teachers' views on high school students' future education attainment. Using data from the National Educational Longitudinal Survey, the



researchers determined that when students were assigned to a teacher of a mismatched race or gender, that teacher was significantly more likely to perceive the student as being frequently disruptive, frequently inattentive, and less likely to complete homework. They were also less likely to believe the student would graduate high school and successfully enroll in and complete college.¹³

Sometimes, these biases go even deeper, causing teachers to not only underestimate a student's academic ability based on their race, but also by something as arbitrary as their name. A fascinating study of teacher expectations of student academic ability by Northwestern's David Figlio showed that teachers were less likely to refer children to gifted programs the more the student's name sounded "low-income."

For example, a student named "Damarcus" is 2.5 percentage points less likely to be referred to a gifted program in a school with few black teachers than his brother "Drew".¹⁴

Even in gifted identification systems where teachers aren't in charge of deciding which students are allowed to participate in gifted programs, their biases can still play a prominent role in the gifted program's diversity.

A study by Matthew T. McBee, Scott J. Peters, and Erin M. Miller, showed that districts that allow teachers to nominate students for gifted screening can miss a large proportion of students who are otherwise gifted. In fact, it may result in upwards of 60 percent of gifted students not being assessed.¹⁵

One way to minimize the disparities that result from a gifted identification process that relies on parent advocacy and teacher nominations is to universally screen all students in a particular grade or set of grades for giftedness.

Recent research by UC Berkeley's David Card and University of Miami's Laura Giuliano shows that universal screening helps identify gifted low-income and students of color that might otherwise fall through the cracks.

Examining the impact of the policy in Florida's Broward County School District during second and fifth grade, Card and Giuliano found that universal screening boosted low-income and students of color participation rates dramatically. With no change in the minimum standards for the county's gifted program, universal screening led to a 180 percent increase in the gifted rate among all disadvantaged students, with a 130 percent increase for Latino students and an 80 percent increase for black students.¹⁶



Card and Giuliano's study isn't the only one to find these results. Numerous studies by other gifted education experts show that universal screening is a great first step in identifying low-income and students of color who would have otherwise not been referred to gifted programs.¹⁷

Another way to minimize disparities in gifted programs is to compare students to their peers at the local, rather than national, level.

This makes sense for a number of reasons.

First, students from low-income families are unlikely to score in the 95th percentile and above on the assessments used for gifted identification due to the strong, positive correlation between family income and academic achievement and the biases contained in many achievement and cognitive ability tests.¹⁸

Second, gifted programs should be designed for students whose intellectual needs are not met in the general classroom, whether the median student in their school is operating behind, at, or above grade level.¹⁹

The use of local norms is not without controversy. Some gifted advocates believe that giftedness is inherent to individuals and not a label that can be attached to a student depending on what educational environment her or she is in.²⁰ Others prize different policies, like the portability of a student's gifted status from district to district, more.²¹

Colorado's Identification Process

Thankfully, Colorado has taken steps to minimize the role parent advocacy and teacher identification play in determining which students get to participate in gifted programs.

In fact, 50 percent of AUs universally screen students by second or third grade. An additional 10 percent universally screen in middle school.²²

The state also encourages AUs to not view the scores students receive on universal assessments as the end-all and be-all of the identification process. In its guidance to AUs, the Colorado Department of Education, or CDE, specifically states that AUs should not stop the identification process if a student's results on a single test do not provide evidence that the student is performing at an exceptional level.²³



Additionally, the CDE asks gifted coordinators in AUs to use a “body of evidence”, or BOE, to determine if a student should be identified as gifted. A BOE consists of both quantitative and qualitative measures. Quantitative measures may include a norm-referenced test, such as a cognitive ability test, or a criterion-referenced test, such as a state-mandated test. Qualitative measures may include a teacher observation scale or rubric. When determining whether a student is gifted, the CDE recommends that all qualifying data points in a BOE be regarded equally.²⁴

Once a BOE is collected, the AUs evaluation team, consisting of at least one person trained or endorsed in gifted identification and programming, examines the BOE, speaks with all teachers working with the student, and receives input from the student’s parents.²⁵

To be identified as gifted in a specific academic aptitude (reading, writing, math, science, social studies, world languages), a student must score in the 95th percentile or above on one or more cognitive tests and demonstrate aptitude on two specific academic measures, such as scoring in the advanced or distinguished category on the state exam or an expertly-judged academic contest.²⁶ That same student may also qualify as gifted even if they don’t score at the 95th percentile or above, as long as their school’s gifted review team determines a comprehensive body of evidence demonstrates giftedness.²⁷

To be identified as gifted in a specific talent aptitude (visual arts, performing arts, music, dance, psychomotor, creative or productive thinking, and leadership), students must meet three of the following four indicators: (1) score at the 95th percentile or above on the motivation section of a Gifted Rating Scale (GRS), or a Gifted Evaluation Scale (GES); (2) have a portfolio that chronicles the student’s exceptional performance; (3) achieve a top state or national ranking as determined by the sport’s national governing body; or (4) be a student or a member of a team which receives a top placement or ranking in a multi-state or national competition.²⁸

To be identified as an intellectually gifted, a student must score above the 95th percentile or above on one or more cognitive-ability assessments.²⁹

Students who aren’t initially identified as gifted may be put into a “talent pool” if they show promise in any one of the gifted categories or outside of a category they are already identified as gifted in. Those students are often provided advanced programming and other interventions to address their potential strengths.³⁰

Not included in the CDE’s guidance for AUs is the use of local norms when determining which students are identified as gifted. Though they



don't prohibit it, the CDE discourages AUs from using local norms unless the AU determines that the use of local norms enhances services to students who may, in the future, qualify for gifted identification under national norms.

The CDE puts much more of an emphasis on portability, which allows a student's identification status in one or more categories of giftedness to transfer to any district in the state.³¹

Methodology

This report details the disparities that exist in each of Colorado's AUs between their student enrollment and their gifted program enrollment.

In order to determine whether a specific demographic subgroup is over- or under-identified for gifted programming, the percentage of that subgroup in the gifted population was divided by the subgroup's percentage in the general student population. That number was then subtracted from 1.

For example, if Emergent Bilingual, or EB, students made up 3 percent of Colorado's gifted program student population, but 11 percent of its general student population, then EB students were under-identified by 73.8 percent.

$$3/11 = .272$$

$$1 - .272 = 73.8$$

This was calculated for each demographic subgroup in each AU, as well as for the state as a whole.

To determine why some AUs have higher disparities than others, the authors of this report also read each AU's gifted program plan, paying attention to the identification process each AU used to determine which students qualify for enrollment in its gifted program.

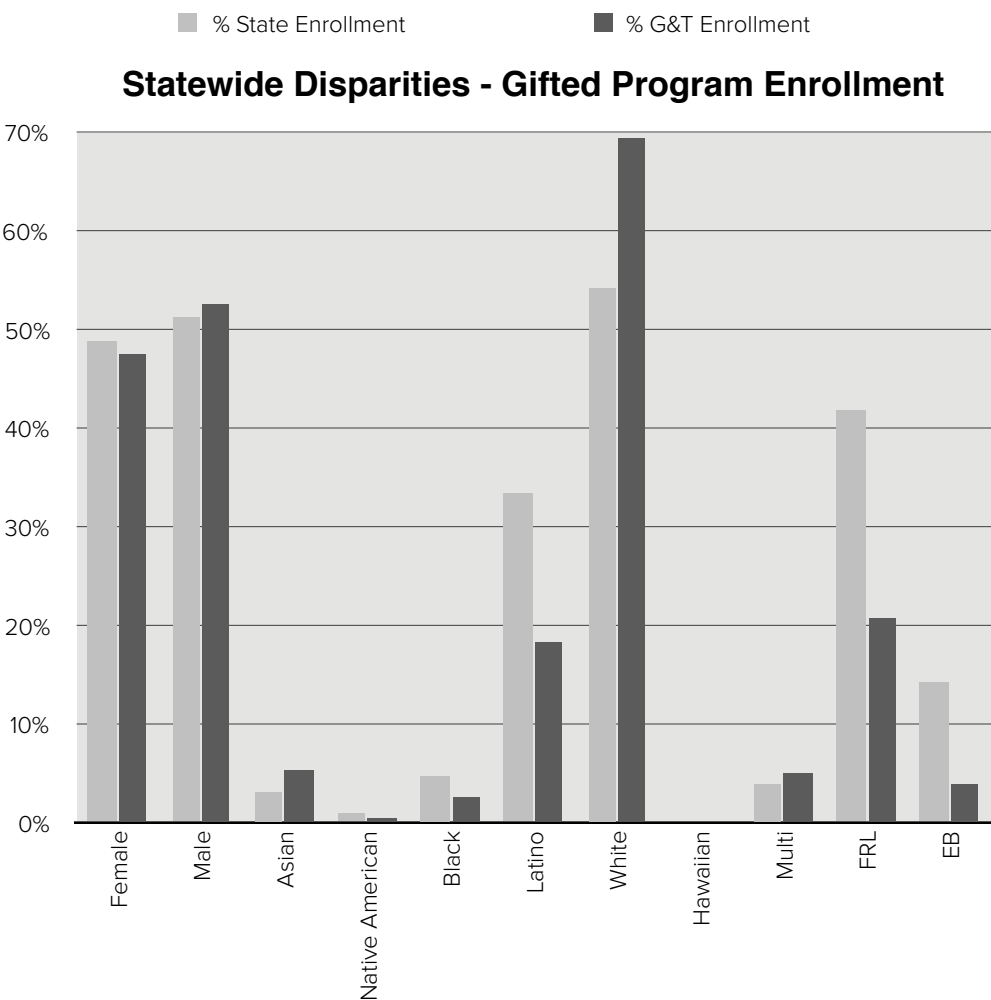
The data analyzed in this report is publicly available and can be accessed on the Colorado Department of Education website at https://www.cde.state.co.us/gt/gt_student_data_october2015. Each AU's gifted program plan can be accessed at <https://www.cde.state.co.us/gt/data>.



Colorado Snapshot

Statewide data shows that Colorado schools over-identify white and Asian students, and significantly under-identify black, Latino, and Emergent Bilingual students for gifted programming.

White and Asian students comprise 54.2 percent and 3.2 percent of statewide enrollment, respectively, but 69.3 percent and 5.2 percent of the gifted student population. This means that White students are overrepresented by 28 percent and Asian students are overrepresented by 65.2 percent in the state's gifted programs.



Black and Latino students, on the other hand, are under-identified at rates nearing 50 percent.

Black students comprise 4.6 percent of the student population, but only 2.4 percent of the gifted student population, while Latino students make up 33.2 percent of the student population, but only 18.2 percent of the

gifted student population. These differences represent an under-identification rate of 49.1 percent and 45.3 percent, respectively.

For students qualifying for free and reduced price lunch, the disparity is even larger. They comprise 41.7 percent of the student population, but only 20.7 percent of the gifted student population - a 50.3 percent difference.

The largest disparity exists for Emergent Bilingual students. While they represent 14.2 percent of the state’s student population, they only make up 3.8 percent of gifted student population - meaning they are underrepresented by 73.7 percent.

Disparities - Latino Students

Latino students in the Uncompahgre BOCES - Ridgway AU comprise 12.5 percent of the general student population, but only 1.7 percent of the gifted student population - a disparity of 86.4 percent.

Uncompahgre BOCES - Ridgway’s Gifted Education Program Plan, or GEPP, points towards what might be one cause of the under-identification of Latino students in the AU. Specifically, the GEPP indicates that 40 percent of its schools do not use universal screening to determine whether students qualify for gifted programming. Instead, they rely on teacher or parent referrals to begin the screening process. Choosing this method, instead of universal screening, excludes some students who would otherwise be identified for placement in a gifted program.³²

ADMINISTRATIVE UNIT	GAP
Uncompahgre BOCES, Ridgway	86.4%
Elbert C-1, Elizabeth	80.2%
Northwest BOCES	78.7%
Larimer R-3 Park	77.2%
Rio Blanco BOCES	75.2%

While the Larimer R-3 Park AU has a much more detailed gifted identification process, it still has a disparity of 77.2 percent for Latino students.

There are a number of possible reasons for the discrepancy.

First, Larimer does not universally screen students until the 3rd grade. All K through 2nd grade students in its gifted program are identified by a general classroom teacher or, if they are EB, by the EB teacher if they exit early from the EB program.³³



Second, even when Larimer does universally screen students, it uses national, rather than local, norms. This means that unless a student scores better than the 95th percentile on the assessments the AU uses as part of its identification process, he or she will not qualify for the gifted program, even if the student is one of the highest achievers at his or her school.³⁴

Disparities - Black Students

Though black students represent a small share of the student population in most AUs, they still are under-identified for enrollment in many gifted programs.

Administrative Unit	Disparity
Mesa 51 Grand Junction	100.0%
Morgan RE-3 Fort Morgan	100.0%
San Luis Valley BOCES	100.0%
East Central BOCES	82.6%
El Paso 12 Cheyenne Mountain	82.1%

One reason for the disparities in these AUs may be the use of national, rather than local, norms.

Mesa 51 Grand Junction AU, for example, requires students to meet a 95 percent threshold on its assessments to qualify for its gifted program. Requiring students to meet national norms excludes some students that are operating above grade level in comparison to their peers from accessing programming that will help them thrive academically.³⁵

The other AUs on this list use national norms as well.

Another reason for these disparities may be the absence of universal screening. As of 2015, neither San Luis Valley nor East Central BOCES universally screen their second or third grade students.

Disparities - Low-Income Students

Low-income students in the Larimer R-3 Park AU comprise 35.9 percent of the general student population, but only 7.7 percent of the gifted student population - a disparity of 78.6 percent.

Once again, the use of national rather than local norms may be to blame for some of the discrepancy.³⁶



Administrative Unit	Gap
Larimer R-3 Park	78.6%
El Paso 12 Cheyenne Mountain	77.7%
WELD RE-4 Windsor	74.6%
Rio Blanco BOCES	74.4%
Douglas RE-1	73.3%

The 74.4 percent discrepancy in Rio Blanco BOCES, on the other hand, can be partially explained by the process it uses to identify gifted students.

First, to be screened for entrance into the Rio Blanco's gifted program, students have to be referred by either a principal, teacher, parent, or peer.

Relying on nominations to begin the identification process can contribute to disparities, due to referrers' potential implicit biases.

Second, the AU uses the Kingore Observation Inventory to initially identify students. Apart from being potentially influenced by a teacher's biases, the Kingore is not a reliable assessment tool.

A study found that it had a false positive rate of 32 to 48 percent - meaning one third to almost one half of students it identified as gifted were not - and a false negative rate of 14 to 25 percent - meaning it missed almost a quarter of gifted students.³⁷

Disparities – Emergent Bilingual Students*

**Emergent Bilingual (EB) students are categorized as English Language Learners (ELL) in the state of Colorado.*

EB students are the most under-identified group statewide. In fact, the AUs with the largest disparities identify no EB students for their gifted programs.

This is shocking since EB students in three of these AUs constitute at least five percent of the general student population.

in the Gunnison RE-1J AU, for example, EB students comprise 7.8 percent of the general student population. In the Delta 50J, Logan RE-Valley, Paso 3 Widefield, and Elbert C-1, and Elizabeth AUs, the general student population consists of 6.7 percent, 5.5 percent, 2.3 percent, and 1.3 percent of EB students, respectively.



Administrative Unit	Gap
Gunnison RE-1J	100.0%
Delta 50J	100.0%
Logan RE-1 Valley	100.0%
El Paso 3 Widefield	100.0%
Elbert C-1, Elizabeth	100.0%

Why do such large disparities exist?

First, though many of these AUs universally screen students early in their academic careers, they use national, rather than local norms, when determining who qualifies for entrance into their gifted programs. This unnecessarily excludes students who are performing above their similar peers at their school from accessing advanced programming that is more likely to meet their academic needs.

Second, none of the AU's gifted education program plans specifically addresses how they handle the identification of EB students. While some AUs look at how fast EB students progress through their program - a possible indication of verbal giftedness - none of these AUs do.

Lastly, some of the AUs also rely on teacher referrals for students to be assessed. This, once again, invites implicit biases into the identification process.

Policy Recommendations

What steps can be taken - especially in the short term - to ensure that we identify giftedness equally among all Coloradans, including black, Latino, low-income, and EB students and ensure they are properly represented in the state's gifted programs?

First, the legislature should increase the amount of money available under Colorado's Gifted Education Universal Screening and Qualified Personnel Grant, which is currently funded at \$1.7 million.

To ensure that all districts can universally screen students in K-3 and again in middle school, funding should be doubled.

Second, AUs should set cut scores on assessments at local, rather than national, norms.



This is a recommendation that runs counter to the guidance the CDE gives AUs when it comes to establishing cut scores. Because of its focus on portability, the CDE wants a common norm established at each AU to ensure that if a student transfers to another district he or she will be adequately prepared for his or her new gifted program.

While the urge to create a common norm is understandable, it's misguided for a number of different reasons.

First, setting cut scores at the national norms limits the number of low-income students who will qualify for enrollment in gifted programming, since poverty and achievement are so strongly correlated.

Second, curriculum decisions are made at the local level. In some schools, sixth-graders might be performing at a seventh grade level in math, while in others they might be performing at a fifth grade level. If the purpose of gifted education is to allow high-ability students access to an educational experience they would otherwise not receive in class, then using local norms for determining who gets to enroll in a school's gifted program makes sense.

Lastly, focusing on portability rather than local norms, sacrifices the many for the few. It focuses policy on those rare instances where students move from poorer districts to wealthier ones rather than on the many students who would benefit from an above grade-level educational experience at their schools.

Asking AUs to use local norms to identify gifted students wouldn't be much of change of policy for the CDE. It currently allows AUs to reassess students if they believe their prior AU had an identification process that is not in the line with the AUs standards. But changing the emphasis on identification from portability to local norms would ensure that hundreds more low-income, students of color, and EB students would gain access to the programming they need and deserve.

Further Research

While this report highlights the demographic disparities in Colorado's gifted programs, it by no means represents the end of research on this issue in the Centennial State.

First, a more detailed analysis of exactly how schools within each AU carry out the AUs identification process would be welcome. Determining exactly which assessment



instruments are used, or whether teachers play a role in the referral process, will help researchers explain - in more depth - where schools have gone wrong.

Second, research into how a combination of factors impacts a student's likelihood of being chosen for a gifted program should be conducted. This report analyzed the disparities between demographic groups, but it did not look at the disparities of students who share two characteristics - being an Emergent Bilingual student and low-income, for example. Determining whether these students are more/less likely to be chosen for a gifted program should be a priority.

Lastly, knowing how well a school is doing at serving its high-ability, low-income, students of color, and ELL students should also be investigated.

One way to ascertain that is to analyze the increase or decrease in the "excellence gap" at each school. While the "achievement gap" refers to the gap between white students and low-income and students of color when it comes to knowing grade-level content, the "excellence gap" refers to the same gap that exists for students who score at advanced levels.

By looking at the percentage of students in each subgroup who test in the advanced category the first year they are assessed and then comparing that percentage to the percentage generated every year thereafter, advocates and legislators can get a better sense of whether a school's gifted program is benefiting its high-ability students, especially those from disadvantaged backgrounds.



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