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Admittance Processes in Gifted Education and Their Influence on Equity

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ADMITTANCE PROCESSES IN GIFTED EDUCATION AND THEIR INFLUENCE ON EQUITY

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Abstract

A gifted education program is present in most public schools throughout the country. The goal of these programs is to challenge academically advanced students more than they would be in a general education course. However, there are disparities within all types of gifted education; these disparities span race, socioeconomic status, gender. In this study, the focus was on the inequity present in gifted education and look at the admission processes that are used to identify and therefore serve gifted youth. I will look into policies in place in 15 states to find similarities and differences. The purpose of this study is to determine how admissions processes impact the demographic data of who is placed in gifted education. Using a study done by Gentry and colleagues (2016), I completed some statistical analyses to determine the influence the policies on access to GE had on equitable identification of students for gifted education. I found that policies and regulations have little influence on minority students being proportionally represented in gifted programs.

Literature Review

What is Gifted Education (GE)?

To answer that question, we must start with the definition of giftedness. According to the National Association for Gifted Children, giftedness is defined as "students with gifts and talents [who] 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" (Task Force on the Definition of Giftedness, 2018, p. 1). The purpose, then, of gifted education is to support those students identified as gifted. This happens in many different formats including: pull out programs, target/magnet schools, separate classes, and tracking (National Association for Gifted Children, n.d.). For the purposes of this study, I will focus on programs within the public school system, not target schools that are separate public schools that emphasize specific areas of learning, usually within STEAM, designed for gifted students (National Association for Gifted Children, n.d). Pull-out programs are where students are in a general classroom for a majority of the day and placed into a separate room for specific subjects, like math and reading, but can also be computer science (National Association for Gifted Children, n.d.).

These programs are regularly referred to as talented and gifted programs (TAG) or extended learning programs (ELP). I use gifted education programs (GEP) as an umbrella term for programs that are created to serve gifted students that would include TAG and ELP. Because of the differences in names, I decided to stick with GEP because I found it articulated and captured the central idea of this type of program.

Gifted education programs (GEPs) look different across the nation. Some start as early as kindergarten and others begin toward the end of elementary school. Some GEPs end upon the completion of middle school, others turn into AP/Dual-Credit programs. Louisiana defines gifted

and talented separately with the former focusing on academic achievement and the latter on fine arts achievement (Department of Education: Louisiana, 2022 June 30). There are schools that stress their programs are for gifted students and not "high achieving students," (Comm3 OSDE 2021). High achievers are students who finish their work quickly and are usually well-behaved. These students can be gifted, however, they might not need the differentiation that gifted learners require.

How are Students Identified for Gifted Education?

In this section, I looked at the State Department of Education resources for gifted education in the top fifteen ranked states for Access in Gentry et al. (2016). "Most" will refer to a majority of the fifteen states. These states are Georgia, Iowa, Colorado, Texas, Virginia, Kentucky, North Carolina, Oklahoma, Nevada, South Carolina, Arkansas, Florida, Louisiana, New Mexico, and Kansas. The reason I chose to do research in this way is because not all states have laws and resources on identifying and providing services for gifted learners. These states all had laws on identifying gifted students, providing services for gifted students, or both identifying and serving gifted students.

Identification for gifted education is not standardized. Each state has their own regulations and in many states, each district can decide how they are identifying gifted students. In Arkansas, however, regulations are made by the state (Kimbrell & Barnes-Rose, 2009). Almost universally across the states I researched, the process of identifying a student for GE falls within two major pathways. One of which is dependent solely on standardized test scoring. The second path uses a multi-criteria approach basing the decision on a multitude of factors (Woods, n.d.; Office of Gifted Education, 2020; Comm3 OSDE, 2021; Spearman M. M., 2018).

There are some regulations that most states have adopted into their policies. In some states, all students through high school must be given at least one annual chance to be considered for gifted education (Spearman, 2018). This is to help ensure no student is forgotten about or left behind if they do not qualify earlier. In Georgia, this is done automatically using standardized testing scores (Georgia Department of Education 2020). Some states, like Virginia (Virginia Department of Education, 2012) and Kansas (Kansas State Department of Education, 2021) and Arkansas (Kimbrell & Barnes-Rose, 2009), require a team to identify gifted students, whether that be district- or state-level. Many states including Georgia (Woods, n.d.), Oklahoma (Comm3 OSDE 2021), and South Carolina (Spearman, 2018) emphasize that a single test score can allow a student to be identified for GE but a single test score cannot keep a student from being identified for GE or remove a student from GE. If a state uses a referral throughout the process of identifying students, referrals can come from a teacher, parent, or student (Office of Gifted Education, 2020).

It should be noted that since the type and rigor of programs vary, identification processes can look different due to that factor. For example, in Virginia, if the gifted program is subject-specific, the student must score a high enough score in that subject area to be considered for that program (Virginia Department of Education, 2012). This allows a student to be placed in a gifted program for math, for example, and not writing. This is the same when states differentiate gifted and talented. South Carolina has different criteria to identify students for academic GE as compared to artistic GE (Spearman, 2018). In the next few sections, I will discuss the two different pathways in more depth.

Standardized Test Path

Standardized testing has historically been used the most in determining if a student should be placed in GE (Seigle, 2016). These standardized tests are usually the state-standardized tests required by the *Every Student Succeeds Act* (2015). Usually, a student with a score within the top percentile can automatically be considered for a GEP. This "top percentile" is determined by each state. Depending on the state, sometimes their composite score must be in a specific range or other times it is simply only one subject in which the student will be placed.

However, it has been found that state-standardized tests don't identify giftedness in students of diverse backgrounds as well. Seigle found "traditional screening tools and methods often fail to identify students from diverse ethnic backgrounds for gifted programming particularly when gifted programs rely solely on a single intelligence test," (2016, p. 118). In other words, using a single score to determine a student's eligibility for gifted education leaves a lot of students, specifically minority students, out of GEPs and therefore without the tools they need to push their academic limits. Because of these reasons, the NAGC has encouraged states to adopt a multi-criteria pathway into their identification processes (National Association for Gifted Children, 2008).

Multi-Criteria Path

The NAGC (2008) states that they support the "collaboration of multiple stakeholders" to identify students because it ensures "equitable and consistent use of assessments for the purposes of gifted program identification" (p. 2). In other words, the NAGC is saying that a single test won't always ensure equitable selection of students for a variety of reasons. Instead, they suggest compiling a team to work together to identify students for GE using a variety of sources and

assessments. A multi-criteria path allows identification of students whose test scores are not sufficient for automatic identification.

These criteria vary greatly, but most include at least: one (or more) referrals, cognitive ability tests, norm-referenced behavior scales, observation data by teachers, creative thinking tests, and leadership skills. An example list of criteria includes a student's critical thinking/problem solving abilities, subject knowledge, attitude toward subjects/education, portfolios, and/or access to opportunities (Lee, 2012; Siegle et al., 2016). Some processes add on nonverbal assessments alongside verbal communication skills (Siegle, 2016). Examples of nonverbal assessments include, the Culture Fair Intelligence Test, the Naglieri Nonverbal Abilities Test, and the Ravel Standard Progressive Matrices (Lewis, 2001). These tests present shapes and designs with a blank spot and ask a student to select from an answer bank which shape/object/pattern fits. This measures students' reasoning and spatial awareness skills (2023) without the effects of reading/writing skills. These tests can help identify students who are English language learners.

Equitable Policies in State Identification Procedures

Some states have explicit statements in their policy information in regard to equity within gifted education programs. In Texas they want their GEP to be "closely reflective" of the demographics of the district/campus (Texas Education Agency, 2019 April). Oklahoma echoes this with a standard saying that the demographics of the GEP "should represent the schools" (Comm3 OSDE, 2021). Florida has a state requirement that school districts' GEP must stay within twenty percent of the demographic subgroup within the district as a whole (Bureau of Standards and Instructional Support, 2017). Virginia has explicit statements on including students of low socioeconomic status, English language learners, and students with disabilities to

be equally considered for GEP (Virginia Department of Education, 2012). Iowa follows in a similar pattern with a process on how to identify and serve English language learners (Iowa Department of Education, 2008). These are just a few examples of states that have policies for how gifted education programs should reflect the student population. In the next section, I will look at reasons why statements like these have been included in policies about gifted education.

Are Gifted Education Programs Equitable?

Here we will focus on the inequity present within GEP. It is worth noting that inequity exists in many forms, including but not limited to culturally- and linguistically-diverse students and low-income gifted student representation. The focus of this thesis is on students of racial groups that have historically been underidentified for and underrepresented in gifted education. There are two ways to see equity within GEP. The first is the processes in which students are identified for gifted education; the second is equitable teaching once a student is placed in a gifted education program. When discussing equity in this thesis I refer to the first definition, the identification of students for gifted education.

Representation in Gifted Education

Gifted education in the United States has historically underrepresented minority students. In 2010 at least 500,000 Hispanic and Black males were not being challenged in their education (Ford, 2010). In the 2017-2018 school year across the United States it is estimated that 58.4% of students in gifted education were White, 18.3% were Hispanic/Latino, 9.9% were Asian, 8.2% Black/African American (US. Department of Education, 2018). In Iowa, the number jumps to 86% White students in gifted programs. Using the 2020 Census Data (Bureau, U.S. C. 2022), we find that 57.8% of people in the US are White, 18.7% are Hispanic/Latino, and 12.1 Black/African American. In Iowa specifically, 82.7% of people are White with the Hispanic

population being the second largest racial group at 6.8% (2020). To highlight a few numbers, according to the 2020 Census data, the White population in Iowa is 82.7% but 86% of gifted students in the 2017-2018 school year were White (US Department of Education, 2018). The largest disparity I found was with black students. The Black population in Iowa is 4.1% (Bureau, 2022). However, only 1.7% of students in gifted programs are African American (US Department of Education, 2018). In this data, we see there is not proportional representation of all races enrolled in gifted education programs. In other words, there is an overrepresentation of White students and an underrepresentation of minority students. It is important to note that the focus is not on equal percentages of students from each racial group, but that the population in the gifted programs should be reflective of the general student body. Further, I am not encouraging identifying students simply for "filling a quota" but give all students an equitable opportunity to be identified for GE.

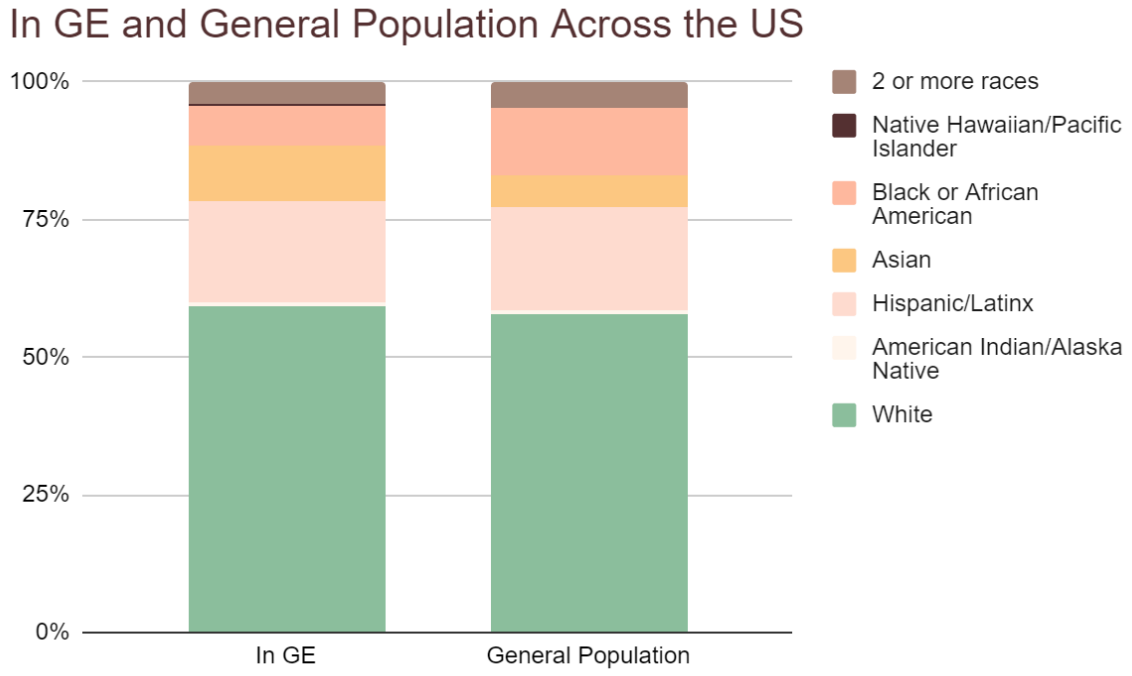

Figure 1. Representation by racial category of who is in GE.

Looking at other aspects of diversity, gifted programs again fall short. English learners account for only 2.4% of students in gifted programs (U.S. Department of Education, 2018). To give context, on average 10.4% of students Nationally are English learners (National Center for Education Statistics, 2022a). In a public school, 15% of students received services for their special needs under the Individuals with Disabilities Education Act (National Center for Education Statistics, 2022b). According to the estimate done by the Office for Civil Rights (2018), 2.8% placed in the gifted program are students with disabilities. However, the data suggests an equal number of males and females are present in gifted programs across the United States (Bureau, 2018), which suggests that identification and acceptance related to gender is being equitably done. Siegle et al. (2016) found that White students who didn't qualify for free/reduced lunch and who were not Hispanic were 2.5 times more likely to be identified as gifted than their Hispanic, free lunch eligible, English learner peers who scored the same math and reading score. While I don't focus on these aspects in the rest of the paper, I wanted to identify a few other areas in which identification processes fall short in equitably selecting students for GEPs.

How do Identification Processes impact equity?

Identification processes impact gifted education greatly. GE programs won't truly be proportionally representative unless a change happens with who we select for GE and how we select them. Unfortunately, present inequity in GEP could be caused by deficit thinking, the belief that White students are superior to those who are culturally different than them (Ford, 2010). Arkansas, for example, separates criteria that are used for identification into subjective and objective with 2 forms of evidence from each needed in order to identify a student for GE. The subjective lists contain many criteria encouraged in the multi-criteria pathway (Kimbrell &

Barnes-Rose 2009). All humans are prone to form biases, implicit and explicit, and so subjective criteria are prone to be impacted by these biases when selecting students for GE programs.

How, then, can we ensure equity within these programs? Many states have seen this as an issue and are working at educating teachers on how to identify gifted students. Oklahoma, for example, has stressed the importance of being able to notice the difference between gifted students and high-achieving students (Comm3 OSDE, 2021). While high-achieving students can be gifted, not all of them necessarily qualify to be considered gifted in terms of requiring differentiated instruction. With proper training, our biases and potential deficit thinking can be pushed aside and we can more equitably identify those who are gifted.

Is Access to GE different from Identification for GE?

The terms access and identification are not synonymous terms and focus on two different aspects of GE. "Access is defined as attending a school that identifies youth with gifted and talents," (Gentry et al., p. 2). In other terms, access refers to more about laws, regulations, and suggested processes. Identification refers to the actual selection process and placement in gifted education. On the national level most schools have a gifted program, however, the process of selecting and placing students in the gifted education is not equitable (Gentry, 2019). While a school might contain a program for gifted students, it does not ensure students of all races and economic backgrounds are equitably selected for the program. Access doesn't mean equity, being placed in a school that identifies students for gifted education doesn't mean that all students who should be placed in GE will be due to the processes in which students are identified. This is the central idea that will be explored in my statistical analysis.

Purdue Study Impact

A study done at Purdue (Gentry et al., 2016) looked at different aspects of gifted education in all 50 states and Washington D.C. This study discussed the ways that some states provided equal access to GEP. However, the representation of students within GE was not proportional in representation. In this particular study, the term RI or "representation indices" score was determined as a measure of how equitable the representation in GE is. The RI score is calculated by dividing the percentage of the race in gifted education by the percentage of the race in total (see Appendix A). If a population is well-represented, the RI score will be at or above 1. If the score is below one, that means that the proportion of students in the gifted education program is lower than the proportion of those students in the state. I focused on the RI scores, Access Grades, and Access Rankings to inform my thesis. They broke down the population into 4 racial categories that included: American Indian/Alaska Native, Black, Latinx, and Native Hawaiian/Pacific Islander. White and Asian students were not analyzed in the study as they have consistently been well-represented in GEP and are identified at rates much higher than their minority counterparts (2016).

We know that there are disparities in who is selected for gifted education, yet we also know there have been laws in place to help remedy those. The question is, are those laws and regulations effective in making GEP more equitable in terms of student representation? This is the question I used to drive my statistical analysis.

Research Question

How equitable are the processes for identifying students for GEP in the United States? How are the laws in place affecting the equitable access and identification of students for GEP across the United States?

Methods

This research has been a combination of an extended literature review with small portions of statistical analysis using data from Gentry et al. (2016). The initial stages of my literature review were broad. The articles I initially found were varied in focus: equity in gifted education, admission processes for gifted programs, and preparation for gifted programs. I used Google Scholar and EBSCO within the UNI Rod Library Services as databases and searched with key terms "gifted education," "equity," "identification," "admittance," and "talented and gifted." This provided general knowledge about gifted education and the current situation of diversity within these programs, diversity that spanned race, socio-economic status, locale, and English language acquisition. The articles I read to synthesize this information are from multiple gifted education journals including: *Journal for the Education of the Gifted* and *Gifted Education Quarterly*.

I continued the literature review and dove further into the data to look for trends. Upon finding the System Failure: Access Denied article written by Gentry and colleagues (2016), I began using the data found in that study for my statistical analysis. The data used for statistical analysis was pulled from the Grade Report by State information tables (pp. 30-81, see Appendix A for example) These grade reports were compiled using the laws of the state, the given grade for Access, the RI score broken down by multiple categories (race, (Non)Title I-School, and a summary). I use the term "Access" (case-sensitive) in relation to Gentry et al. (2016). The use of Access in Gentry (2016) defined as "attending a school that identifies youth with gifts and talents" and I don't want to mix up the general term access as defined above and the Grade/Rank of Access. I also looked into the states that were ranked in the top 15 for "Access" to GE, according to the Gentry et al. (2016) study, to compile qualitative data on how state law relates

to equity within GE programs, if at all. The grade and rank for Access has direct ties to laws put in place by the state and the RI score is one analysis of equity in GE. Combined they will help answer my question of how laws are affecting equity in terms of access and identification for GE across the United States. I will use statistical analysis along with the findings from my extended literature review to compare the processes used in identifying students for gifted education. During thesis development, I consulted weekly with my advisor, Dr. Heather Gallivan and research librarians as needed.

Data Analysis

For the statistical analysis, I compiled the data from Gentry et al. (2016) which can be found in Appendix B. I used Common Online Data Analysis Platform, CODAP, a software used for data analysis for statistical analysis (CODAP, 2013). The data used for this thesis was found in the grade report created by Gentry and colleagues (2016). Specifically, I used both the grade (A, B, C, D, or F) for Access within each racial category and rank (1-51) as measures for Access. The grade was used as categorical data when comparing Access grades and RI scores across racial groups. Remember RI score is a way that measures if GE are proportionally representing students of the specific group, a RI closer to 1 would mean there is equal representation in the student body of GE as in the general population.

The rank was used for a least squares line when looking at rank as the independent variable and average RI score for the state as the dependent variable to determine a relationship between Access and RI score. To do this, I calculated the mean RI score which was the calculated mean of the RI scores across racial categories for each state(?). I compared that value with the rank of Access for each state given by Gentry et al. (2016).I assumed that this graph

would show a negative correlation between these two characteristics–when the rank gets worse, the RI score will go farther away from 1.

I also used the overall, statewide RI score by racial category to determine whether each state's overall RI score differed from the expected score of 1. The value, 1, represents proportional representation in the GE population and, thus, I wanted to determine whether the average RI score across all states was significantly different from 1. T. I looked at a total of 48 states as Washington D.C., Rhode Island, and Vermont did not have data beside a rank and grade for Access. I split the data up by racial category and found the mean RI score and standard deviation across all states given by CODAP. I then ran one sample *t*-tests to determine the statistical significance of the expected RI score of 1 and the actual RI score given.

Results

I used data from Gentry et al. (2016) and the methods explained in the section above for my findings. In this section, I will refer to "grades" which means the grade the state has received from Gentry et al. (2016) in terms of Access to GE. The term "score" will refer to the RI score received.

During initial analysis, I found no relationship between the states' given grade and the score in each racial category. The assumption would be that schools who had been identified in higher grades of Access would have more equitable GEP (RI scores closer to 1). Figure 1 shows all four graphs which are divided by racial category with the RI score on the horizontal-axis and the grade on the vertical-axis. Each point represents a state and the blue lines represent the calculated mean (done by CODAP). For example, in American Indian/Alaska Native American the RI scores shows that students are underrepresented in gifted education programs regardless of the grade they receive for Access regardless of grade as the average RI score for each grade

level is less than 1. The graphs shown in Figure 1 should have the average becoming closer to 1 as the grade received becomes higher, but I found that is not the case through visual inspection of the graphs.

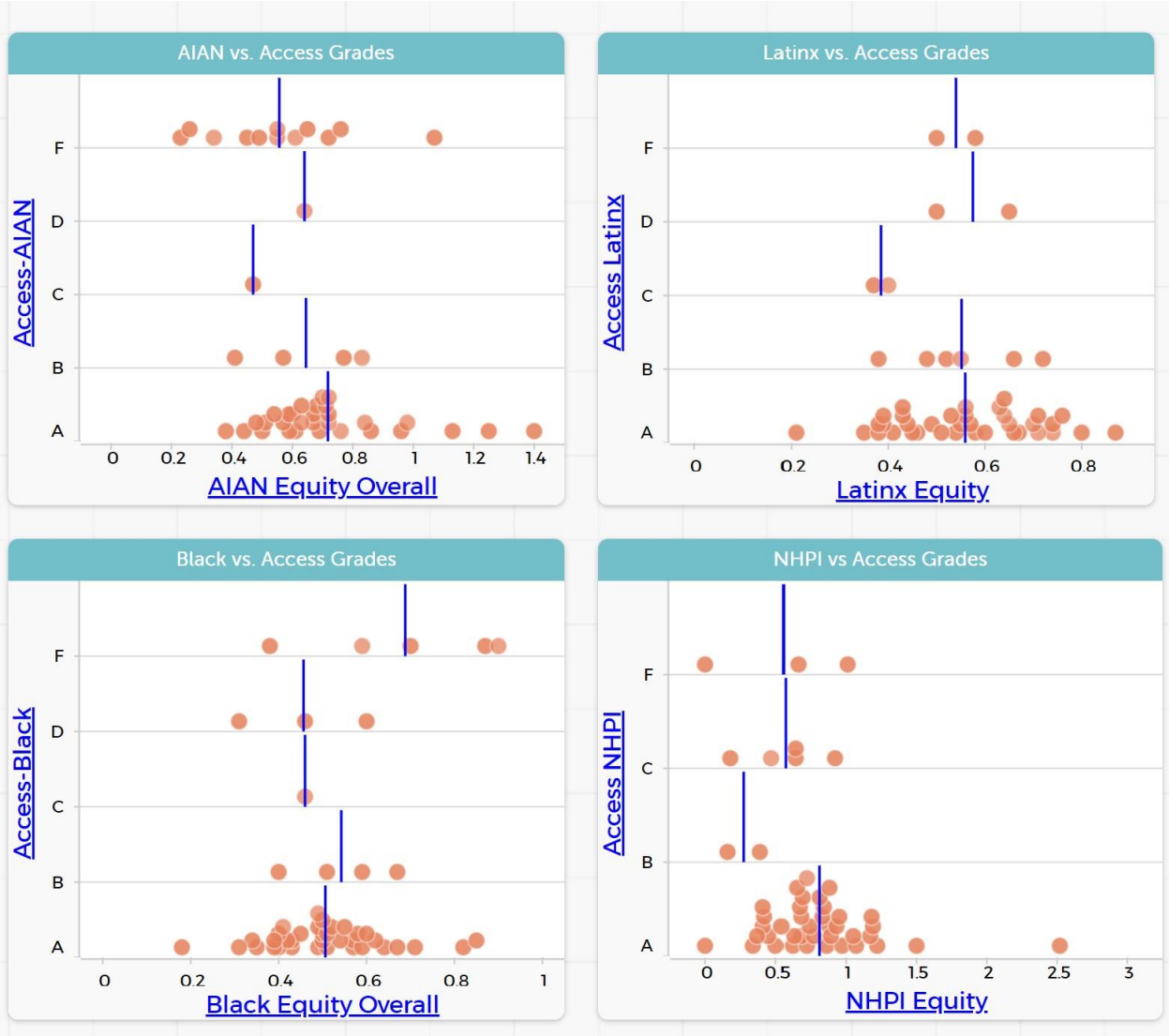

Figure 2. RI Scores and Access Grades separated by Racial Category

These graphs show that just because a state has laws that require equal access to gifted education, it does not mean that all students are equitably identified for the gifted education programs. This is shown through these graphs because states that have received higher grades are

not higher in RI score. There is no pattern present in the data that would suggest that a state with a higher grade for Access will identify students in a more equitable manner.

I also created a set of data from the mean of each grade in each race. This information was found from the blue lines in the graphs presented in Figure 2 which are the means in each category. Table 1 shows the data points used.

Table 1. Mean RI Scores by Grade and Racial Category

	A	B	C	D	F
AIAN	0.718	0.645	0.47	0.64	0.557
Latinx	0.559	0.552	0.385	0.575	0.54
Black	0.506	0.543	0.46	0.467	0.688
NHPI	0.81	0.28	0.57	N/A	0.56

The data from Table 1 further showed that the laws don't automatically create programs where students are proportionally selected for gifted programs because the averages found in the column with higher grades aren't consistently higher than those found in the columns with lower grades. Figure 3 shows the data from Table 1 in graph form with the RI scores on the x-axis and Grade for Access on the y-axis. This further supports the claim that grade is insignificant when looking at equitable representation in GE. Specifically, Figure 3 shows that regardless of racial category or grade given in terms of Access, the average RI score was below one in each Grade subcategory, the lowest being 0.28 (racial category: NHPI and grade: B) and the highest being 0.81 (racial category: NHPI and grade: A). The mean of the data set in Table 1 is 0.554, showing that on average, minority students' representation in GEP is half what is represented in the general education classrooms.

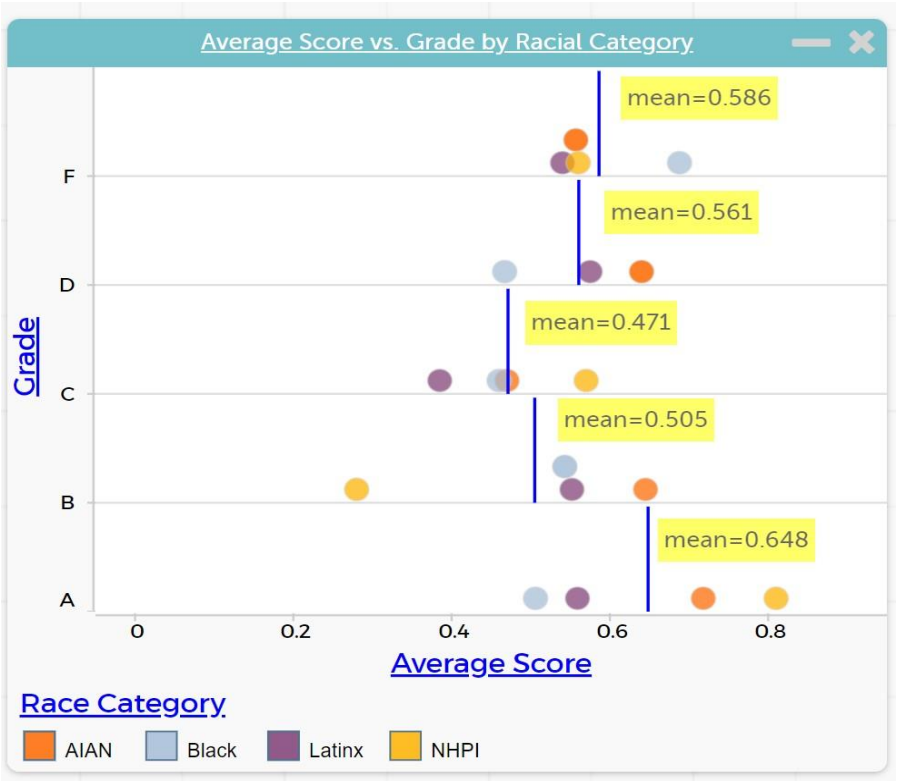

Figure 3. Mean RI score for each racial category versus grade

Table 2 shows the *t*-test results broken down by racial category, in all tests we reject the null hypothesis. The results show that regardless of the race, these results were extremely statistically significant. These results suggest that there is strong evidence that the processes by which students are identified for GE are allowing minority students to be under identified for GEPs.

Table 2. *t* test results

Race	Mean	SD	*t*	95% CI of the difference between expected value (1) and mean.
AIAN	0.665	.232	10.00***	-0.40237 to-0.26763
Latinx	0.551	0.139	22.38***	-0.48936 to -0.449
Black	0.524	0.15	21.99***	-0.51956 to -0.43244
NHPI	0.746	.41	4.29***	-0.37305 to-0.13495

Note: N = 48; *** $p < .001$

I chose to let rank be the independent variable in this because I figured that a state that has more policy in place would be better able to equitably identify students for GE. The graph for the least squares regression line shows that there is no relationship between the given rank for Access and mean RI score for each state (see Figure 4). The green line shown below is the least squares line. The equation of the least squares regression line is: $y = .000051x + .62$ with $r^2 = 0.$

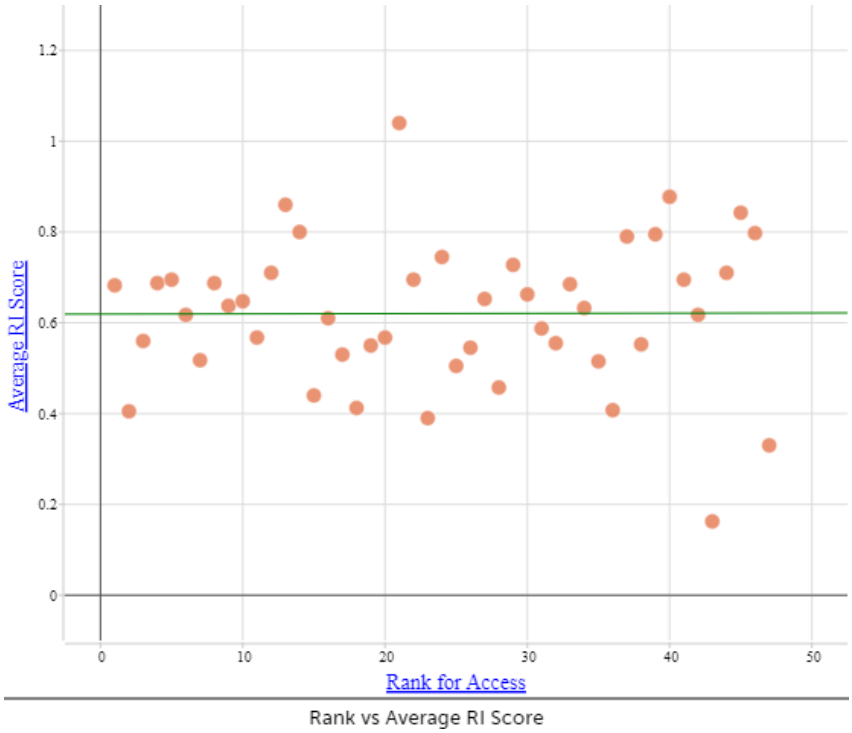

Figure 4. Ranking compared to average RI score for each state.

The slope (0.000051) shows that there is very little relationship between rank and access. It is a slight positive relationship which means that as rank increases (read gets worse), the average RI score increases (moves closer to 1). This finding is the opposite, though insignificantly so, of what I expected to find. The r^2 value of zero further shows that there is no relationship between rank and access as we cannot use access to explain any of the variability in RI score. In other words, this suggests that RI score is not affected by rank.

Discussion and Implications

From my research, I found that policies don't have a significant impact on students being proportionally identified for gifted education. All of my graphs support the claim that minority students are constantly being underidentified for GE across the United States. I also found there was great variability in the different ways students are identified for GEPs and that each state is slightly different in their selection process. Further, there was no evidence that a state would do a

better job of proportionally admitting students because of any regulation or policy that was put in place by the state. No state was consistent in identifying their students proportionally across all racial categories.

For this discussion, I will bring in two fictional student profiles to highlight my findings from the statistical analysis and through my literature review. I will discuss where these hypothetical students might end up based on the findings of my research. Because of the lack of standardization, there is no way I can definitively state where the students would end up. However, I will bring up the points that would help and hinder this student from being identified for gifted education. I intentionally have kept these profiles gender neutral to focus only on the aspects of a student I have discussed thus far.

Student Profiles

The first student I will discuss is a Latinx student. We will assume that they scored in the 82nd percentile on the state standardized tests. This student is in a school that identifies and serves gifted learners in a state graded A for Access. They finish work quickly in class and regularly take the lead during group work. However, because they finish their work fast, they tend to get off-task and will then distract their friends. They really enjoy science and are constantly asking questions that go beyond (both in breadth and depth) what is covered in class.

The second student is an Alaska Native student who scores in the 78th percentile on state standardized tests. They attend a school that is graded B for Access but their school serves and identifies gifted youth. This student is an English Language Learner who has a good grasp of English, but they're quiet in class and rarely raise their hand. They have a strong interest in computer science and really enjoy that class. They score really high on nonverbal assessments for GE identification.

Where will they end up?

Again, I can't make a definitive claim on whether they will be identified for a GE program, but I will make some predictions based on the findings of this study. First, we must see that neither of their standardized test scores would automatically place them in gifted education, so without the multicriteria path, they wouldn't even be considered. However, since multicriteria paths are common and encouraged in many states, we'll look at the other characteristics too. They both have strong interests in specific subjects which will help identify them for the correct program. The first student has strong leadership skills, which is a solid criteria to have for GE. Sometimes this student takes their peers off task, but if this student was challenged appropriately, this behavior might stop. The second student scores high in nonverbal assessments which could mean they are intellectually at a level for gifted education, they just might need some accommodations as they are still acquiring English (this is where the second definition of equity in GE comes into play). With all these characteristics in mind, we turn to RI scores. These students are underrepresented in gifted education with RI scores of 0.559 and 0.645, respectively. This would lead to the conclusion that they are less likely to be identified as gifted with the current policies and training in place. So, while both students have the opportunity of being identified for GE, the results of this study suggest that they might still be overlooked.

Implications

In my research, I uncovered a few states (e.g. Virginia, Iowa) that targeted identifying specific groups of students in policy who have been traditionally underrepresented in gifted education, though their RI scores aren't showing significant differences than those without specific language on identifying underrepresented populations. The policies discussed in the literature review were all fairly novel. I am interested to see if these numbers will change as

more and more states adopt these policies. Though it was found that policy does not mean equity will follow, with more knowledge and proper training, I believe teachers may be able to identify students more equitably.

Additionally, there are many aspects of equity that weren't covered in this thesis. I am curious to see the relationship between locale or gender and current equity. With more time, I would investigate how students are identified. If, for example, 80% of gifted students are identified using their standardized testing scores, are we allowing the multi-criteria path to be used to its full potential only being used 30% of the time? Another question I had after looking into this research is the gap between who is identified for GE and who is actually placed in GEPs. For example, some parents may choose to withhold their student from gifted education if they have been identified, how frequently does that happen? I didn't have the data to look into this idea, but this would be interesting to continue in research to see if there are common patterns or even if this is something that frequently occurs.

Conclusion

The results of this study suggest that current policy isn't enough, so where do we go from here? I wish I had the answers to this question, but I do not. I am left with even more questions and ideas for further research. This includes who else is getting left out of GE, what is the frequency of the two different paths being used, and if these statistics progress in the future? While there has been progress toward equity, we are still in the process of achieving it. There is no clear cut answer, however, there is more knowledge now which will hopefully inspire some change.

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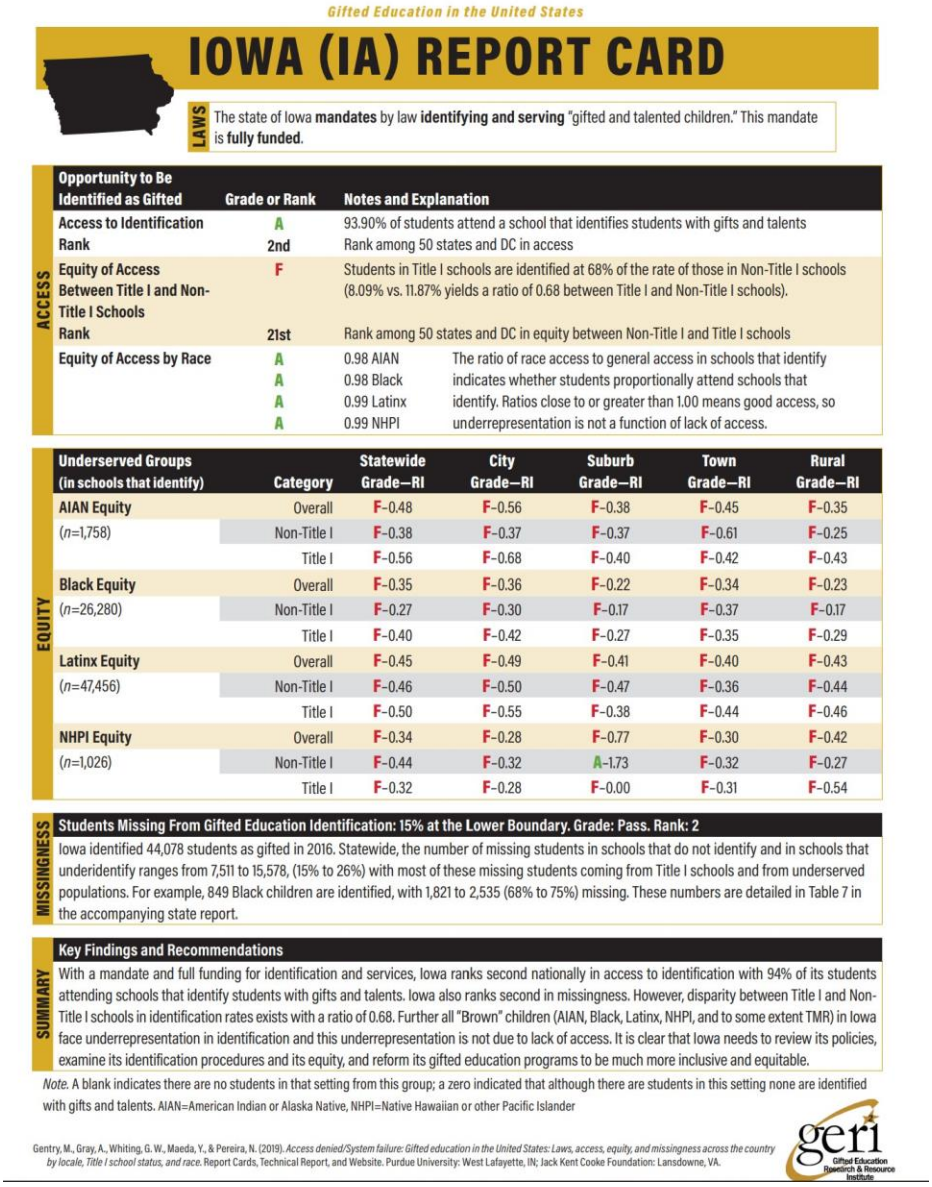
Appendix A

RI Score calculator:

$$\text{Overall RI} = \frac{\%\,[\text{each race in each community}]\text{Gifted}}{\%\,[\text{each race in each community}]\text{Total}}$$

Report Card:



Gifted Education in the United States

IOWA (IA) REPORT CARD

LAWS The state of Iowa **mandates** by law **identifying and serving** "gifted and talented children." This mandate is **fully funded**.

ACCESS

Opportunity to Be Identified as Gifted	Grade or Rank	Notes and Explanation
Access to Identification	A	93.90% of students attend a school that identifies students with gifts and talents
Rank	2nd	Rank among 50 states and DC in access
Equity of Access Between Title I and Non-Title I Schools	F	Students in Title I schools are identified at 68% of the rate of those in Non-Title I schools (8.09% vs. 11.87% yields a ratio of 0.68 between Title I and Non-Title I schools).
Rank	21st	Rank among 50 states and DC in equity between Non-Title I and Title I schools
Equity of Access by Race	A	0.98 AIAN — The ratio of race access to general access in schools that identify indicates whether students proportionally attend schools that identify. Ratios close to or greater than 1.00 means good access, so underrepresentation is not a function of lack of access.
	A	0.98 Black
	A	0.99 Latinx
	A	0.99 NHPI

EQUITY

Underserved Groups (in schools that identify)	Category	Statewide Grade—RI	City Grade—RI	Suburb Grade—RI	Town Grade—RI	Rural Grade—RI
AIAN Equity	Overall	F-0.48	F-0.56	F-0.38	F-0.45	F-0.35
(*n*=1,758)	Non-Title I	F-0.38	F-0.37	F-0.37	F-0.61	F-0.25
	Title I	F-0.56	F-0.68	F-0.40	F-0.42	F-0.43
Black Equity	Overall	F-0.35	F-0.36	F-0.22	F-0.34	F-0.23
(*n*=26,280)	Non-Title I	F-0.27	F-0.30	F-0.17	F-0.37	F-0.17
	Title I	F-0.40	F-0.42	F-0.27	F-0.35	F-0.29
Latinx Equity	Overall	F-0.45	F-0.49	F-0.41	F-0.40	F-0.43
(*n*=47,456)	Non-Title I	F-0.46	F-0.50	F-0.47	F-0.36	F-0.44
	Title I	F-0.50	F-0.55	F-0.38	F-0.44	F-0.46
NHPI Equity	Overall	F-0.34	F-0.28	F-0.77	F-0.30	F-0.42
(*n*=1,026)	Non-Title I	F-0.44	F-0.32	A-1.73	F-0.32	F-0.27
	Title I	F-0.32	F-0.28	F-0.00	F-0.31	F-0.54

MISSINGNESS

Students Missing From Gifted Education Identification: 15% at the Lower Boundary. Grade: Pass. Rank: 2

Iowa identified 44,078 students as gifted in 2016. Statewide, the number of missing students in schools that do not identify and in schools that underidentify ranges from 7,511 to 15,578, (15% to 26%) with most of these missing students coming from Title I schools and from underserved populations. For example, 849 Black children are identified, with 1,821 to 2,535 (68% to 75%) missing. These numbers are detailed in Table 7 in the accompanying state report.

SUMMARY

Key Findings and Recommendations

With a mandate and full funding for identification and services, Iowa ranks second nationally in access to identification with 94% of its students attending schools that identify students with gifts and talents. Iowa also ranks second in missingness. However, disparity between Title I and Non-Title I schools in identification rates exists with a ratio of 0.68. Further all "Brown" children (AIAN, Black, Latinx, NHPI, and to some extent TMR) in Iowa face underrepresentation in identification and this underrepresentation is not due to lack of access. It is clear that Iowa needs to review its policies, examine its identification procedures and its equity, and reform its gifted education programs to be much more inclusive and equitable.

Note. A blank indicates there are no students in that setting from this group; a zero indicated that although there are students in this setting none are identified with gifts and talents. AIAN=American Indian or Alaska Native, NHPI=Native Hawaiian or other Pacific Islander

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geri Gifted Education Research & Resource Institute

Appendix B

State	Access to identification	Access-AIAN	Access-Black	Access Latinx	Access NHPI	AIAN Equity Overall	Black Equity Overall	Latinx Equity	NHPI Equity	Average	Rank for Access
						0.66	0.52	0.55	0.75		
Nation	D	B	A	A	A	0.83	0.57	0.67	0.62	0.6725	
Alabama	C	A	A	A	A	1.25	0.49	0.54	0.5	0.695	22
Alaska	C	F	A	A	A	0.34	0.57	0.66	0.45	0.505	25
Arizona	D	F	A	A	A	0.55	0.43	0.65	0.72	0.5875	31
Arkansas	B	A	A	A	C	0.69	0.82	0.58	0.18	0.5675	11
California	D	F	A	A	A	0.72	0.59	0.74	0.86	0.7275	29
Colorado	A	A	A	A	A	0.5	0.51	0.55	0.68	0.56	3
Connecticut	F	F	A	B	C	0.76	0.58	0.52	0.92	0.695	41
Delaware	F	A	A	A	F	1.4	0.64	0.46	1.01	0.8775	40
Florida	B	B	A	A	A	0.77	0.43	0.87	0.77	0.71	12
Georgia	A	A	A	A	A	0.86	0.5	0.49	0.88	0.6825	1
Hawaii	D	A	A	B	C	0.96	0.5	0.55	0.64	0.6625	30
Idaho	F	A	A	A	B	0.44	0.45	0.35	0.39	0.4075	36
Illinois	F	A	F	B	A	0.51	0.7	0.66	0.97	0.71	44
Indiana	B	A	C	A	A	0.67	0.46	0.57	0.74	0.61	16
Iowa	A	A	A	A	A	0.48	0.35	0.45	0.34	0.405	2
Kansas	B	A	A	C	A	0.61	0.34	0.4	0.41	0.44	15
Kentucky	A	A	B	B	A	0.76	0.4	0.48	0.83	0.6175	6
Louisiana	B	A	B	B	A	0.63	0.59	0.72	1.5	0.86	13
Maine	C	C	A	A	A	0.47	0.4	0.56	0.84	0.5675	20
Maryland	D	A	A	A	C	0.59	0.67	0.71	0.64	0.6525	27
Michigan	F	A	F	D	A	0.6	0.87	0.5	1.22	0.7975	46
Minnesota	F	F	A	A	F	0.61	0.62	0.64	0.66	0.6325	34
Mississippi	C	A	A	A	A	0.57	0.6	0.74	1.07	0.745	24
Missouri	F	A	B	A	A	0.72	0.51	0.53	0.42	0.545	26
Montana	F	F	A	A	A	0.55	0.42	0.41	0.68	0.515	35

Nebraska	B	F	A	A	A	0.45	0.49	0.51	0.67	0.53	17
Nevada	A	F	A	A	A	0.65	0.39	0.7	0.81	0.6375	9
New Hampshire	F	F	F	F	A	0.23	0.59	0.5	0	0.33	47
New Jersey	F	A	B	D	A	0.67	0.67	0.65	1.17	0.79	37
New Mexico	B	A	A	A	A	0.59	0.71	0.71	1.19	0.8	14
New York	F	A	F	F	A	0.84	0.9	0.58	1.05	0.8425	45
North Carolina	A	A	A	A	A	0.54	0.4	0.44	0.69	0.5175	7
North Dakota	F	A	A	A	A	1.13	0.31	0.38	0.65	0.6175	42
Ohio	D	A	D	A	A	0.68	0.31	0.43	0.41	0.4575	28
Oklahoma	A	A	A	A	A	0.98	0.54	0.6	0.63	0.6875	8
Oregon	B	A	A	A	C	0.38	0.41	0.39	0.47	0.4125	18
Pennsylvania	B	B	F	C	A	0.57	0.38	0.37	0.88	0.55	19
South Carolina	A	A	A	A	A	0.63	0.51	0.56	0.89	0.6475	10
South Dakota	F	F	A	A	F	0.26	0.18	0.21	0	0.1625	43
Tennessee	F	A	D	A	A	0.72	0.46	0.38	1.18	0.685	33
Texas	A	A	A	A	A	0.71	0.52	0.8	0.72	0.6875	4
Utah	F	D	A	A	A	0.64	0.85	0.76	0.93	0.795	39
Virginia	A	A	A	A	A	0.7	0.5	0.63	0.95	0.695	5
Washington	C	B	A	A	A	0.41	0.39	0.39	0.37	0.39	23
West Virginia	C	A	A	A	A	0.72	0.49	0.43	2.52	1.04	21
Wisconsin	D	F	A	A	A	0.49	0.55	0.64	0.54	0.555	32
Wyoming	F	F	D	B	B	1.07	0.6	0.38	0.16	0.5525	38
Rhode Island	F										50
Vermont	F										49
Massachusetts	F										48
DC	F										51