

Examination of the Relationships Between Socioeconomic Status and Music Student Achievement in State-Level Performing Groups

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Background

Socioeconomic Status (SES) is defined as “the relative position of individuals, families, or groups in stratified social systems where some societal values (e.g., occupational prestige, education) are not uniformly distributed” (Bornstein & Bradley, 2003, p. 2). The relationship between student achievement and SES has been a focus in educational research in recent years. Speer (2014) found that lower SES schools’ music ensembles received lower ratings at music contests than their higher SES counterparts. Schmidt, Baker, Hayes, and Kwan (2006) found that the higher achieving bands represented at the Indiana State Music Association’s festival were made up of a lower percentage of students who were receiving free or reduced lunch. Furthermore, Dame (2010) found a negative correlation between economically disadvantaged school populations and Texas Choir UIL (University Interscholastic League) ensemble contest ratings.

Previous studies suggest that SES can affect the establishment and success of a school music program, which could alter the support a music program receives from school administration (Albert, 2006a; Corenblum & Marshall, 1998). Less support from school administrators for their music programs can result in decreased funding (Corenblum & Marshall, 1998; Hinckley, 1995), which is essential to creating a successful and high quality music program (Albert, 2006a). Inequalities in education due to funding were found in lower SES music programs, resulting in lack of facilities and equipment (Kozol, 1991; Renfro, 2003).

The support provided by parents and community members can be a factor for success and achievement of students and their music programs. Corenblum and Marshall (1998), as well as Renfro (2003), found SES to be a predictor of the support a school music program received from

parents, with low parental support and low SES being closely associated. Moreover, some researchers have found that SES can affect student participation in musical ensembles (Elpus & Abril, 2011). Researchers found a significant difference in music course offerings among schools with varying SES (Abril & Gault, 2008). A 2012 report by the United States Department of Education (Parsad & Spiegelman, 2012) found that schools with higher enrollments of students receiving free or reduced lunch had lower percentages of music instruction in their schools. Parsad and Spiegelman also found significantly fewer music course offerings at low SES schools.

Many students, regardless of SES, have monetarily invested in All-State music camps and private instruction to prepare themselves for success in competing for a position in an All-State music ensemble. Rohwer and Rohwer (2001) found that out of the 498 band, choir, and orchestra students that made an All-State ensemble, 51% participated in at least one All-State camp and 79% received private instruction. Studies examining private instruction have detailed students' perspectives towards lessons (Duke, Flowers, & Wolfe, 1997; Hamann & Frost, 2000; Rife, Shnek, Lauby, & Lapidus, 2001), private instruction components and activities (Barry & McCarthur, 1994; Kostka, 1984), and incentives associated with taking part in private instruction (Schmidt, 2005).

Findings have been varied as to whether private instruction has a positive effect upon participant achievement. In the area of instrumental music, band students taking private instruction outperformed their peers who took little or no private instruction (Hamann, 1982; Hamann & Sobaje, 1983). However, private instruction was not found to provide an advantage on instrumental students' scores on the Gaston Test of Musicality (May & Elliot, 1980). While one group of researchers found a strong relationship between student success and private instruction (Sloboda, Davidson, Howe, & Moore, 2011), other researchers found that students who were higher achieving musicians received less private lesson instruction than their lower achieving counterparts (Sloboda & Howe, 1991). Though the research on private music instruction and student success is conflicting. Additionally, there is a lack of information regarding summer camps and their role in preparing students for achievement in performance.

Given the differences between success in low SES schools (compared with other schools) on a number of factors, the purpose of this study was to examine the representation of high, medium, and low SES groups in the TMEA All-State choir and band ensembles from 2005 to 2015. One specific question was posed: Is there an underrepresentation of low SES students in TMEA All-State bands and choirs?

Limitations of Study

It is to be noted that while a large population was utilized in the gathering and analysis of data, the ensembles involved in this study of the TMEA choirs (Mixed, Women's, and Men's) and bands (6A Symphonic, 6A Concert, 5A Symphonic) did not represent every ensemble considered a TMEA All-State ensemble. Ensembles such as the Small School Choir (SSC), All Texas Small School Bands (ATSSB), Jazz Band, Orchestras, and Mariachi Ensemble, along with information about these ensembles were not used in this study, limiting information that could be used to find more comprehensive results. Another limitation of the study is that only school data were examined, rather than individual student data. In other words, only the schools were classified as overall low, high, or medium in SES status, irrespective of the individual student in the All-State ensemble.

Method

All-State Auditions and Judging

For the TMEA All-State band and choir auditions, each participant auditioned for a panel of five judges who were all either certified public school teachers or were private music teachers employed by each region to judge the auditions (Texas Music Educators Association, 2014, 2015). Each judge scored all auditioned selections. To create a composite audition score for students, judges' scores were averaged, with the highest and lowest scores removed. The composite audition scores were ranked with only a certain number of students continued onto the next round (Texas Music Educators Association, 2014, 2015). This process was repeated four different times for participants auditioning for choirs (Texas Music Educators Association,

2015) and three times for participants auditioning for bands, respectively (Texas Music Educators Association, 2014). In the auditions, only the top ranked participants continue in the competition, with the goal of eventually becoming members of the Texas All-State music ensembles (Texas Music Educators Association, 2014, 2015).

Data Collection Procedures

To examine the relationship between student success and SES, this study examined the publicly available Texas Music Educators Association website, which lists all past Texas All-State Choir members from 2005 to 2015 (Texas Music Educators Association, 2016a) as well as detailed reports showing the number of students represented by each school and district in each All-State ensemble (Texas Music Educators Association, 2016b). The All-State members representing their schools ($N = 10,726$) resided in different regions of Texas, representing different communities and demographics, including public, private, and charter schools. The data regarding specific schools with participants in All-State ensembles were entered into a Microsoft Excel spreadsheet, and then separated by year and ensemble through different tabs. The Texas Educators Association website was examined, with a focus on each school's archived yearly Academic Excellence Indicator System (AEIS) report (Texas Education Agency, 2012a). The AEIS report specifies the number of students per school who are eligible for free or reduced lunch.

A school's percentage of economically disadvantaged students is defined by the percentage of students who are eligible for free or reduced lunch (Texas Education Agency, 2015). As in Costa-Giomi and Chappell (2007), schools were given labels of higher SES (0–33% economically disadvantaged), medium SES (34–66 % economically disadvantaged) and low SES (67% or more economically disadvantaged). The representation of SES was compared throughout all the Texas All-State ensembles from 2005 to 2015. The schools represented by the TMEA All-State large ensembles members are from the entire spectrum of socioeconomic statuses (SES) from 0% to 100% of each school's student body having the designation of economically disadvantaged. SES was defined using data collected from the Texas Education Agency (TEA).

TEA collects the percentage of economically disadvantaged students for each Texas school and calculates that percentage by taking the sum of all students eligible for public assistance or for free or reduced lunch and then dividing by the total number of students (Texas Education Agency, 2012b). These data reports for Texas schools are published in the annual Academic Excellence Indicator system (AEIS) as indicated by the Texas Education Agency (2012a). AEIS reports for all schools represented by each All-State music ensemble member from the 2005 to 2015 school years were used in this study.

Eligibility of students for free or reduced lunch is often used by researchers as a means of measuring poverty and socioeconomic disadvantage (Doyle, 2012; Fitzpatrick, 2006; Good, 1997; Kinney, 2008, 2010; Kinney & Forsythe, 2005; Nichols, 2003). The Income Eligibility Guidelines, which are used by all schools, institutions, and facilities participating in the National School Lunch Program, define eligibility for free or reduced lunch (Food and Nutrition Service, USDA, 2013).

While each school was given the label of high, medium, and low SES depending upon its percentage of economically disadvantaged students, at no point was an attempt made to assess the SES of individual members of All-State ensembles. In addition, because all the data used in this study are publicly available, no IRB review was necessary.

The data collected for this study consisted of the SES of each school represented in each All-State large choir and band ensemble beginning in 2005 through 2015. Specifically, the data showed the percentage of each school's student body who were considered economically disadvantaged. The data were analyzed to examine if an underrepresentation of low SES schools occurred in the TMEA All-State ensembles over an 11-year period.

Results

Data consisted of the frequency with which students from various schools earned a spot in the Texas All-State and the SES status of the schools they represented. The sample size of the band ($n = 5181$ All-State members from 2005–2015) and choir ($n = 5545$ All-State members from 2015–2015) were different; therefore to allow for meaningful comparisons, all frequency data were

converted to percentages. Data were collected and analyzed with the focus on the percentage of low, medium, and high SES groups represented in the All-State bands and choirs.

Figure 1 shows the 11-year mean percentage of low, medium, and high SES groups from 2005 to 2015 in the TMEA bands and choirs. The high SES group had a mean percentage of 60%, while the medium SES group and low SES groups represented 29% and 10% respectively. This figure shows that there is an unequal representation overall between high, medium, and low SES groups as well as an underrepresentation of the low SES group in the TMEA bands and choirs.

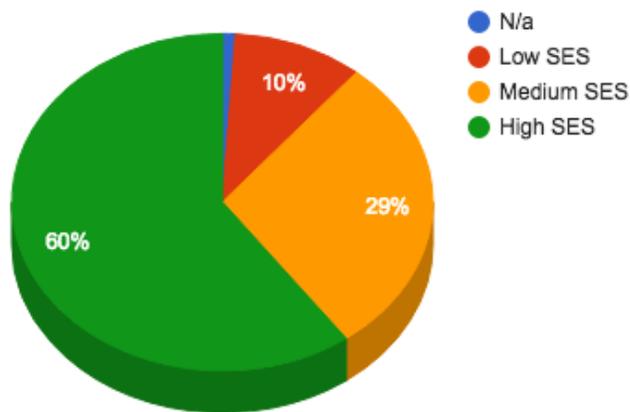


Figure 1. Mean representation of SES groups from 2005 to 2015.

Figure 2 shows the combined band and choir SES representation from 2005 to 2015, where both the high and medium SES groups represented a consistent overall majority of the All-State band and choir population. The low SES group represented a mean value of 11% over the 11-year period of this study, showing only a 5 percentage point gain during this time period, from its lowest point in 2008 of 8% to its highest points in 2014 of 13%, making the low SES group the most underrepresented group in the TMEA All-State ensembles from 2005 to 2015.

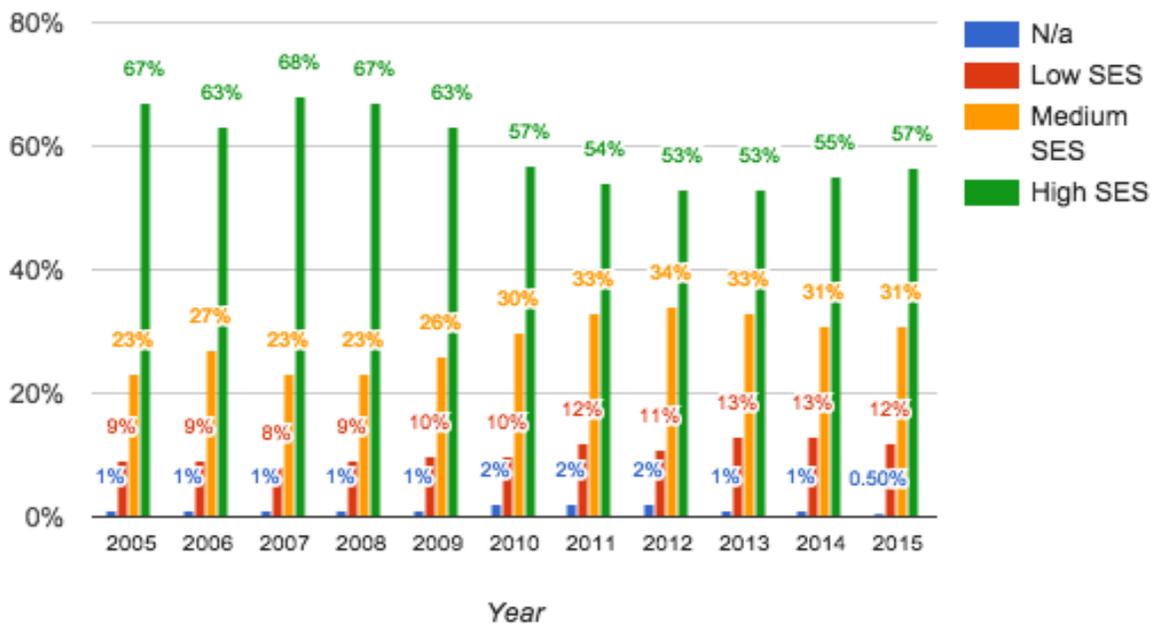


Figure 2. Combined TMEA band and choir SES Representation from 2005 to 2015.

Figure 3 shows the combined TMEA band and choir SES representation from 2005 to 2015 in a trajectory model, with the fluctuation over time in represented percentile of each group. The low SES group representation increased during the 11-year period, and fluctuates from 8% to 13% respectively. Additionally, the low SES group mean percentile rose 5 percentage points between 2008 to 2013 and stayed between 12% and 13% in 2014 and 2015. All three groups showed some fluctuations in representation over time, with the greatest decrease found in the high SES group, with a drop in representation of 15 percentage points between 2007 and 2012, and the greatest increase found in the medium SES group, with a representation growth of 11 percentage points between 2007 and 2012. The mean percentage representation gap between all three SES groups closed during the 11-year period of this study. Specifically, the mean difference between high and low SES from 2005 to 2015 was 49 percentage points, with the greatest gap being 60 percentage points in 2007 and the smallest gap being 40 percentage points in 2013.

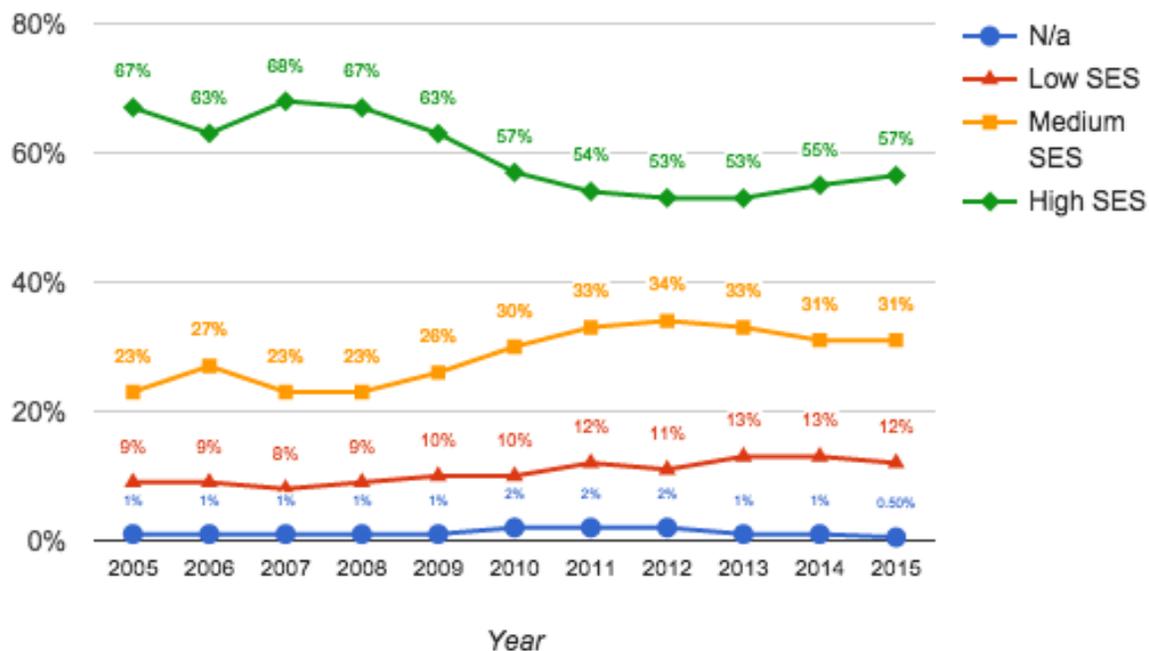


Figure 3. Trajectory model showing fluctuation of each SES school group representation from 2005 to 2015.

Figure 4 shows the comparison of the low SES group in the TMEA bands and choirs from 2005 to 2015. The differences in low SES percentage in band and choir were quite apparent, with as much as a 7 percentage point difference in the overall mean representation in the 11-year period of this study. The greatest gap between band and choir occurred in 2011, with a 9 percentage point difference in the two. The band low SES group mean percentage representation peaked at 17%, while the choir low SES group mean percentage representation peaked at just 11%. The lowest representation of low SES schools in choir occurred between 2005 to 2008, with a consistent 5% representation, while band's lowest representation of low SES schools occurred in both 2005 and 2007, with a 10% representation. It is to be noted that bands consistently had a higher representation of low SES students than choir in the TMEA All-State ensembles of this study, with as much as a 9 percentage point gap in representation found between them.

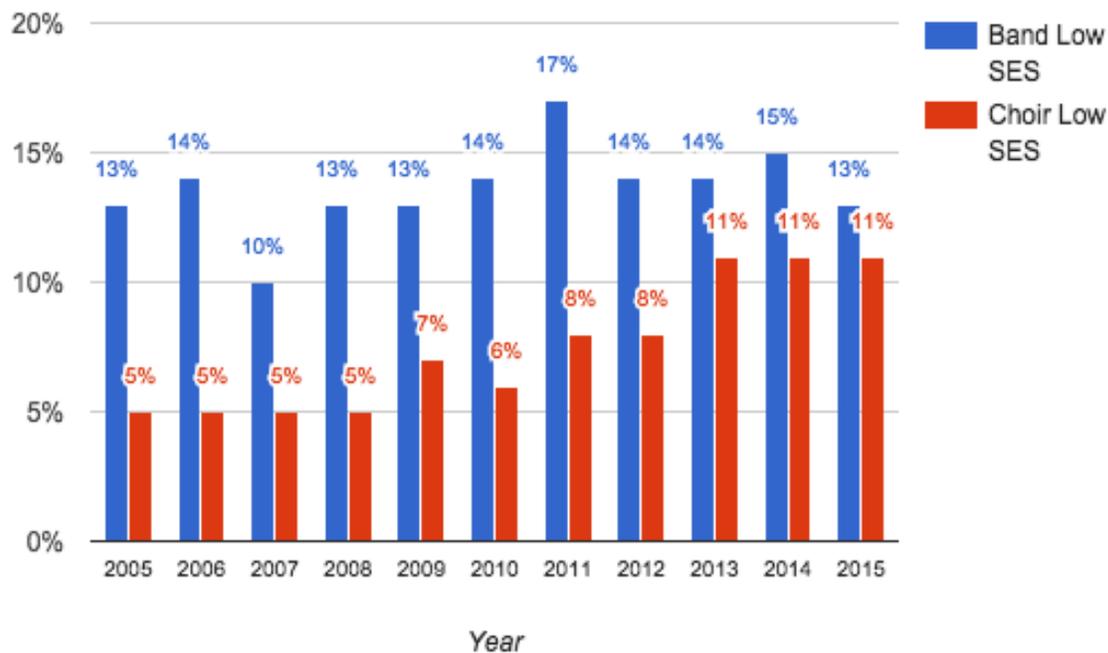


Figure 4. Comparison of band and choir low SES group 2005 to 2015.

Figure 5 shows the comparison of the low SES group in the TMEA bands and choirs from 2005 to 2015 in a trajectory model. The gap between band and choir low SES representation closed over the past 11 years, with the greatest percentile difference in representation occurring in 2011 with a 9 percentage point gain, and the smallest percentile difference in representation happening in 2015, with a 2 percentage point gap. The mean percentage difference between low SES bands and choirs from 2005 to 2015 was 6 percentage points. The consistent rise of low SES students represented in choir, a rise of 6 percentage points between 2008 and 2013, and a fall in low SES students represented in bands, with a drop of 4 percentage points between 2011 and 2015, resulted in a closing of the gap between bands' and choirs' low SES groups over the 11-year period of this study.

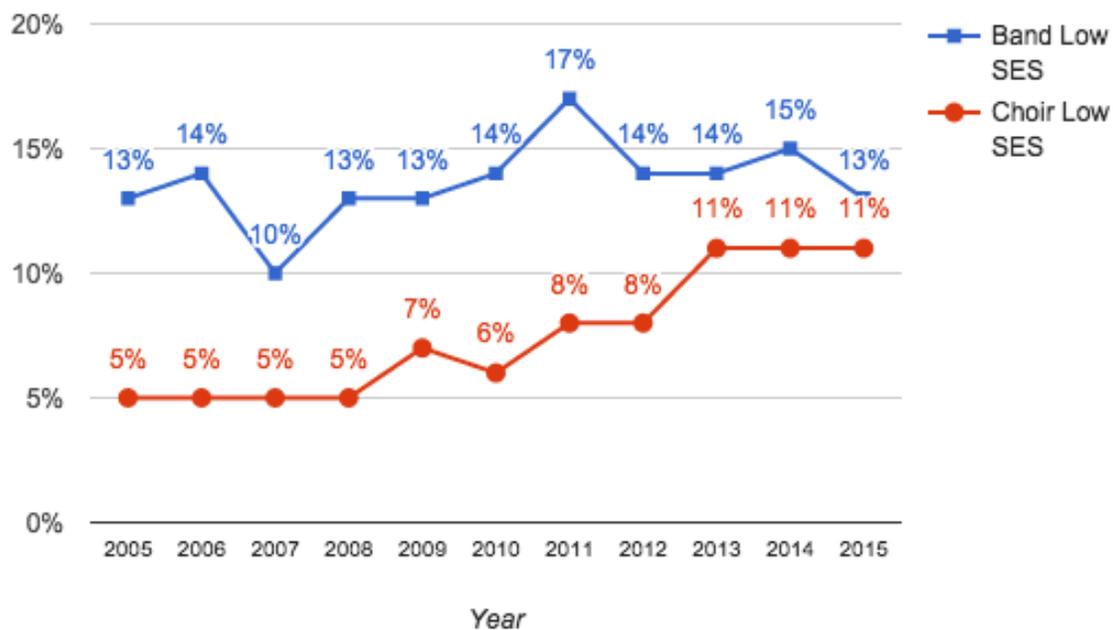


Figure 5. Comparison of band and choir low SES group from 2005 to 2015.

Results may be summarized as follows: There was an unequal representation of the three SES groups and a notable underrepresentation of the low SES group in the TMEA All-State bands and choirs from 2005 to 2015. The high SES group represented a mean 11-year percentile of 60%, the medium SES group at 29%, and the low SES group at 10%. The low SES group had a greater representation in bands than in choirs, with at times a 9 percentage point gap between the percentage of low SES choirs and low SES bands. The greatest decrease in the representation of an SES group was high SES, with a mean drop of 15 percentage points between 2007 and 2012. The medium SES group saw the greatest increase in representation with a mean rise of 11 percentage points from 2007 to 2012.

Discussion

The purpose of this study was to examine the representation of high, medium, and low SES school groups in the TMEA All-State choir and band ensembles from 2005 to 2015. One specific question was posed: Is there an underrepresentation of low SES students in TMEA All-State

bands and choirs?

The low SES school group represented only a mean of 10% of the total percentage of All-State members from 2005 to 2015; therefore, there is an underrepresentation of low SES students in the TMEA All-State bands and choirs. If there were no difference in representation between the low, medium, and high SES school groups, the representation would be equally proportioned at 33% each. This distribution was not the case and the data show the large opportunity gap still present in school music education. Overall, the high and medium SES groups represented a mean percentage of 60% and 29% respectively, making up 89% of the membership in the All-State bands and choirs, while the low SES group remained the most underrepresented group of the TMEA All-State ensembles.

Further Research

While this study examined the represented SES school groups in the TMEA All-State large school bands and choirs, it did not examine the representation of the different SES groups in the TMEA Small School Choir (SSC) and All Texas Small School Bands (ATSSB). Other areas of need for future research should include whether all the TMEA All-State ensembles have a greater representation of high SES students than the lower ensembles, a qualitative study of individuals chosen for All-State ensembles and their personal trajectory, a study in which directors in successful low SES school are interviewed regarding what strategies they use to inspire student success, and a comparison study of low SES schools who have high and low levels of success in the All-state process. Additionally, because individual student data were not considered, conclusions cannot be drawn regarding individual students' SES, only the SES designation of the school where they attended. It is entirely possible that individual students from high SES families/contexts were counted among the low SES schools represented. Further study might include a closer examination of individual students' SES in an endeavor to determine whether there is indeed an opportunity gap present for All-State student members.

Conclusion

It is quite clear that not all districts, schools, and music programs are giving their students the same opportunity for success. The underrepresentation of low SES students is startling. It is also apparent that the gaps between high, middle, and low SES groups have not been closed. Each student deserves a quality music education and we must strive to provide all individuals, regardless of their socioeconomic status, the same opportunity for success.

Keywords

Socioeconomic status, competition, opportunity, representation

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