EDITORIAL

Equality of Educational Opportunity

Susan K. Johnsen, PhD

Fifty years ago, James Coleman and his colleagues conducted a survey that was requested by the Civil Rights Act of 1964 and ultimately disseminated a landmark study, *Equality of Educational Opportunity* (Coleman et al., 1966). They reported that the great majority of American children attended schools that were largely segregated by race. Administering standardized achievement tests in Grades 1, 3, 6, 9, and 12, the researchers found that differences existed beginning in the first grade and became progressively greater at higher grade levels—widening the gap. Although racial achievement gaps have declined, differences between groups by socioeconomic status have remained. In fact, income segregation between schools within large districts has increased by more than 40% from 1991 to 2012 (Owens, Reardon, & Jencks, 2016). Income segregation is not without its consequences for those who are high achieving from low-income backgrounds. For example:

- 78% of high-performing, low-income students attend college versus 95% of high-income students (The Education Trust, 2014).
- 24% of high-performing, low-income students are more likely to attend a 2-year college versus 10% of their high-performing peers (The Education Trust, 2014).
- 59% of high-performing, low-income students versus 77% of high-income peers graduate from a 4-year college (Jack Kent Cooke Foundation, 2015).

These significant differences between income groups are important areas of concern considering the benefits of a college degree and the potential contribution these low-income graduates might bring to their communities and to the overall well-being of the economy. Plucker, Giancola, Healey, Arndt, and Wang (2015) have recommended that schools need to make these high-performing students highly visible, remove barriers that limit acceleration options and access to advanced educational services, and hold local education agencies accountable for high ability students from all economic backgrounds (pp. 1-2).

To reverse this trend and reduce the widening gap, we must work together with our general education colleagues to create programming opportunities for high-performing students from low-income backgrounds. This issue of *Gifted Child Today* (*GCT*) may begin this conversation by providing ways that educators may evaluate their curriculum for gifted students and integrate specific strategies for improving math and science instruction.

References

Coleman, J. S., Campbell, E. Q., Hobson, C. J., McPartland, J., Mood, A. M., Weinfeld, F. D., & York, R. L. (1966). *Equality of educational opportunity* (No. FS 5.238:38001). Washington, DC: National Center for Educational Statistics, Office of Education, U.S. Department of Health, Education, and Welfare.

The Education Trust. (2014). *Falling out of the lead: Following high achievers through high school and beyond.* Washington, DC: Author.

Jack Kent Cooke Foundation. (2015). *What is the excellence gap?* Lansdowne, VA: Author. Retrieved from http://www.excellencegap.org/what-is-the-excellence-gap/

Owens, A., Reardon, S. F., & Jencks, C. (2016). Income segregation between schools and school districts. *American Educational Research Journal, 53*, 1150-1197. doi:103102/0002831216652722

Plucker, J., Giancola, J., Healey, G., Arndt, D., & Wang, C. (2015). *Equal talents, unequal opportunities: A report card on state support for academically talented low-income students.* Lansdowne, VA: Jack Kent Cooke Foundation.

DOI:10.1177/1076217516676390. From [1]Baylor University. Address correspondence to: Susan K. Johnsen, PhD, Baylor University, School of Education, Department of Educational Psychology, One Bear Place #97301, Waco, TX 76798, USA; email: susan_johnsen@baylor.edu.

NEWS BRIEFS

On the Web

Sheet Music Archive

http://www.sheetmusicarchive.net/

Download sheet music here for just about any instrument or ensemble. This site offers sheet music from Mozart, Pachelbel, Stravinsky, and others. You are able to download free pieces for 10 days, and the fee is US$3.99 a month for unlimited downloads.

The Federal Reserve Today

http://www.federalreserveeducation.org

This site includes resources for financial literacy education from the different Federal Reserve Banks. Click on a link that will take you to a five-tips series on avoiding foreclosure scams, improving your credit score, protecting your checking account, dealing with a home equity line freeze, and shopping for a mortgage. Video topics from experts on various topics such as asset bubble prices and economic mobility are also included.

SAT Practice

http://www.collegeboard.com/apps/qotd/question

Go to this website on your smartphone and click on the icon to download the app for daily practice questions on the new SAT. The College Board is offering new practice questions every day. There is a link for a hint under the question if you get stuck. When an answer is submitted,

Needed Changes in State Accountability Systems

Accountability systems need to deal with the ceiling as well as the floor (Petrilli, Griffith, Wright, & Kim, 2016). Although students who perform just below the bar are more likely to make large gains in the No Child Left Behind (NCLB) era, high achievers make lesser gains, particularly those from low-income backgrounds. In the report, *High Stakes for High Achievers*, Petrilli and his colleagues (2016) identify four steps to ensure that accountability systems address the needs of high achievers under the Every Student Succeeds Act. First, they suggest that schools should be rewarded for having more students perform at an "advanced" level. Next, schools should be rated using a growth model that looks at the progress of individual students at all achievement levels, not just those who are below the "proficient" line. Third, gifted and advanced students' performance results should be reported separately or disaggregated. Finally, half of a school's rating should be based on the "growth of all students." The authors reviewed each of the states' accountability systems using the steps above as criteria. They reported that only four states—Arkansas, Ohio, Oregon, and South Carolina—had systems that focused on high-achieving students. They recommend that the Department of Education allow states to rate academic achievement using a performance index. To examine the ratings for each state, you may retrieve the full report at https://edexcellence.net/publications/high-stakes-for-high-achievers/.

Factors in College Admission

The National Association for College Admission Counseling (NACAC) was founded in 1937 and focuses on supporting students in the transition from high school to college. Unfortunately, only 33% of all adults aged 25 and older actually obtained a bachelor's degree. According to the NACAC's 2015 *State of College Admission Report* (Clinedinst, Koranteng, & Nicola, 2016), admissions decisions are based on a number of factors, not just SAT and ACT scores. Factors that influence college admission decisions for first-time freshmen include grades in college preparatory courses, strength of curriculum, overall high school grade point average (GPA), and admission test scores. The next most important factors that

DOI:10.1177/1076217516677203.

provide insight regarding personal qualities were the student essay, interests, counselor and teacher recommendations, extracurricular activities, and class rank. A small percentage of institutions also consider subject test scores, portfolios, interviews, state graduation exams scores, and work experience. For transfer admission decisions, college grades matter the most: overall GPA at prior post secondary institutions and average grades in transferrable courses. Four-year colleges and universities accept 65.8% of first-time freshmen applicants, 61% of transfer students, and 34% of first-time international students. The NACAC emphasizes the importance of students' access to college information and counseling in school to facilitate the college admission process.

Indicators of Postsecondary STEM Success of Hispanic Students

Sponsored by the Institute of Education Sciences, the Regional Educational Laboratory Southwest (SEDL) conducted a review of the research literature to identify malleable factors that can be measured in K-12 settings and that can predict students' postsecondary Science, Technology, Engineering and Mathematics (STEM) success, particularly for Hispanic students (Hinojosa, Rapaport, Jaciw, LiCalsi, & Zacamy, 2016). Providing a rationale for this study, the researchers reported that while Hispanic employees accounted for 14% of the workforce, they held just 6% of STEM jobs. These were their key findings regarding predictors of STEM postsecondary success (p. i):

1. The number of high school math and science courses taken and the level of those courses predicted postsecondary STEM success for all student groups.
2. Interest or confidence in STEM was predictive of students' postsecondary STEM success with these relationships evident as early as middle school.
3. Although achievement in middle school and high school predicted students' postsecondary STEM success, grades in math and science courses were less predictive of postsecondary STEM success for racial/ethnic minority students.
4. High school predictors of STEM success included the schools' academic rigor, percentage of students enrolled in college preparatory programs, students' satisfaction with their teachers, and levels of parent participation.
5. Few studies examined predictors of postsecondary STEM success specifically for Hispanic students.

an opportunity to try again or the correct answer with helpful feedback appears. With this app, you can also take a complete SAT practice test or Preliminary SAT 10 (PSAT 10) practice test, bubble in your answers, activate your phone's camera to scan the answers, and the app will score your test in seconds.

Word Search

http://puzzlemaker.school.discovery.com/WordSearchSetupForm.html

Teachers, do you have a unit where students need extra help with learning the terminology? Create your own crossword puzzle on this website. This exercise will force students to be careful with spelling and help them learn and retain definitions as well.

How Stuff Works

http://www.howstuffworks.com/

Have you ever wondered why drone pilots are leaving the military? Or how to plan a masquerade ball? How do Massive Open Online Courses (MOOCs) work? Find the answers to these questions and more at this website. There is information on autos, science, health, entertainment, culture, travel, technology, home and garden, money, and more. This site is full of helpful how-to articles, guides, and tips on just about any project you are working on.

Notable

Personalized learning instruction is tailored to each student's strengths, needs, and interests to ensure mastery high standards. In a recent report, International Association for K-12 Online Learning (iNACOL) studied promising state policies for personalized learning. (Patrick, Worthen, Frost, & Gent, 2016). They classified states as advanced, developing, emerging, and

no policies. Advanced states have comprehensive policy alignment and/or an active state role to build capacity in local school systems for competency education. Some of these state policies include credit flexibility where schools are allowed to base course credit on mastery, redesigning courses into specific standards and competencies instead of using the Carnegie Unit, creating innovation zones and pilot programs to develop new personalized learning models, and developing multiple, flexible pathways toward graduation from high school. States that have enabling policies in place to provide more flexibility to K-12 schools. For more information, you may access the full report at http://www.inacol.org/wp-content/uploads/2016/05/iNACOL-Promising-State-Policies-for-Personalized-Learning.pdf

Ten high schools won US$100 million to *reimagine their school* based on their students' wants and needs. The schools, which serve student populations that are predominantly low-income and/or part of a racial minority group, are incorporating some of these ideas in their new visions: teams of students and adults who investigate real-world projects, student-led projects where students in Grades 11 and 12 work with students in Grades 9 and 10 as apprentices, flexible scheduling with 24/7 online access, online modules, holographic field trips, and virtual-reality studies. For more information about XQ: The Super School Project, visit https://xqsuperschool.org/whoweare.

The Education Commission of the States (EDC) Education Trends report (Zinth, 2016) identifies states that are allowing or requiring districts to *apply computer science coursework toward completion of high school graduation.* Twenty states require a student to be allowed to fulfill a math, science, or foreign language credit for high school graduation by completing a computer science course. Four states award a special diploma, endorsement or other recognition to high school

They suggest that encouraging representation of racial/ethnic minority students in high-level math and science courses may be more effective in reducing disparities in postsecondary STEM success than efforts to increase the number of courses these students take. Engaging and supporting elementary students who already express an interest in STEM is also important in helping sustain this interest through middle and high school.

Dual Enrollment Courses: Plusses and Minuses

According to *Education Week* (Gewertz, 2016), dual enrollment courses have soared nationally. About 1.9 million students, 11.4% of the secondary school population, were taking some form of dual enrollment course in 2010-2011, and 10 states reported that 70% or more of their schools had students enrolled in such programs. However, one of the concerns expressed by students and even advocates is the difficulty in some cases of transferring credit. Some credits do not transfer and others do not apply to a college major resulting in a loss of credits when students enroll. As a result, most students do not earn a bachelor's degree in 2 years as they had hoped, which results in less financial savings. However, some university–high school partnerships have met rigorous national accreditation requirements. In 75% of these accredited programs, 80% or more of the students are able to transfer credits to colleges successfully. Research does suggest that those students who do enroll in dual-credit courses are more likely to enroll in college right after high school, get better grades in college, and finish in 4 years. Entering college with credits also allow students to register for more advanced courses earlier or explore new subjects.

School and District Leaders' Use of Research

To examine the question of whether or not educational leaders use research to inform their decision-making, a research team from the University of Colorado surveyed 733 different leaders in 45 states and 485 different school districts (Penuel et al., 2016). The response rate for the survey was 51.5%. Research was defined as "an activity in which people employ systematic, empirical methods to answer a specific question" (p. 2). They found that participants were more likely to use research to design professional development and direct resources to programs, expand their understanding of an issue, and get others to agree with a point of view. The research that leaders found most helpful were primarily books (58%), followed by research or policy reports (17%), or peer-reviewed journal articles (14%). They were most likely to access research through professional associations and professional conferences. Although they viewed research as useful, a majority disagreed that people expected claims made in meetings to be backed

graduates who have earned certain computer science credits. For more information, visit http://www.ecs.org/ec-content/uploads/09.13.2016_Computer-Science-in-High-School-Graduation-Requirements.pdf

Recent research suggests that freshman, *first-generation underrepresented minority* (URM) college students who enter with a greater belief that science can be used to help their communities identified as scientists more strongly over time than their peers who were not first generation and were more likely to continue pursue science as a major (Jackson, Galvez, Landa, Buonora, & Thoman, 2016). The researchers suggest that it is important to examine intersectional identities to understand science education choices and inform efforts to broaden participation.

References

Jackson, M. C., Galvez, G., Landa, I., Buonora, P., & Thoman, D. B. (2016). Science that matters: The importance of a cultural connection in underrepresented students' science pursuit. *Life Sciences Education, 15*, 1-12. doi:10.1187/cbe.16-01-0067/

Patrick, S., Worthen, M., Frost, D., & Gentz, S. (2016, May). *Promising state policies for personalized learning*. Vienna, VA: International Association for K-12 Online Learning (iNACOL).

Zinth, J. D. (2016, September). *Computer science in high school graduation requirements*. Education Commission of the States Education Trends. Retrieved from http://www.ecs.org/clearinghouse/01/18/29/11829.pdf

up by research. The full report may be accessed at http://ncrpp.org/assets/documents/NCRPP_Technical-Report-1.pdf.

References

Clinedinst, M., Koranteng, A.-M., & Nicola, T. (2016). *2015 State of college admission*. Arlington, VA: National Association for College Admission Counseling. Retrieved from http://www.nacacnet.org/research/research-data/Documents/2015SoCA.pdf/

Gewertz, C. (2016, September 7). Are dual-enrollment programs being oversold. *Education Week, 36*, 12-13.

Hinojosa, T., Rapaport, A., Jaciw, C., LiCalsi, C., & Zacamy, J. (2016). *Exploring the foundations of the future STEM workforce: K-12 indicators of postsecondary STEM success* (REL 2016-122). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southwest. Retrieved from http://ies.ed.gov/ncee/edlabs/

Penuel, W. R., Briggs, D. C., Davidson, K. L., Herlihy, C., Sherer, D., Hill, H. C., . . . Allen, A.-R. (2016). *Findings from a national survey of research use among school and district leaders* (Technical Report No. 1). Boulder, CO: National Center for Research in Policy and Practice.

Petrilli, M. J., Griffith, D., Wright, B. L., & Kim, A. (2016, August). *High stakes for high achievers: State accountability in the age of ESSA*. Washington, DC: Thomas Fordham Institute. Retrieved from https://edexcellence.net/publications/high-stakes-for-high-achievers/