

Despite academic achievement, pay gaps likely continue between the races

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A national analysis reveals some surprising findings when it comes to making the (pay) grade. Credit: Dottie Stover/University of Cincinnati

A nationally representative comparison of salary, academic achievement and race finds that racial and gender inequality continue to exist regardless of academic success. The study by Ervin (Maliq) Matthew, a University of Cincinnati assistant professor of sociology, was presented at the 109th Meeting of the American Sociological Association in San

Francisco.

Matthew's research paper, titled "Making the (Pay) Grade: Racial Variance in Financial Payoff to Academic Success," examined data from the National Education Longitudinal Survey from 1988-2000. The study followed approximately 7,240 people who identified as [white](#), black, Hispanic or Asian. They were in eighth grade at the time the survey began, but the sample was limited to those who were full-time workers (defined as working at least 40 hours per typical week at least 40 weeks per year) at the conclusion of the survey.

Most of the participants had reached age 25 by the time they reported their income in 1999, and were in the early stages of their careers. Matthew also accounted for [socioeconomic status](#), derived from an index that factors the education level of parents, parental occupational prestige and family income. Finally, the examination factored in the highest academic credential earned by the participants – less than a high school diploma; high school diploma; associate degree, bachelor's degree and graduate/professional degrees, and time to college completion.

The testing model also examined academic performance (high school GPA and standardized test scores in reading and math), college selectivity, detailed field for bachelor's degree and occupational fields such as private, public, government or military worker.

The general analysis found "significant income gaps" between blacks and whites by more than \$5,700 in annual wages. Matthew reports that the gap between whites and Hispanics was smaller but still significant, with a \$3,200 difference in annual wages.

"The group that earns the most per year for full-time work is Asians, with an annual income that exceeds whites by approximately \$3,200," says Matthew.

After controlling for gender and socioeconomic status, Matthew found that the black disadvantage to whites was reduced to approximately \$3,400 annually and the Hispanic disadvantage was reduced greatly and was no longer statistically significant, meaning that the difference between whites and Hispanics is mostly due to socioeconomic disadvantage. He also found that the Asian advantage over whites was much less affected than the gap between whites and either blacks or Hispanics, falling to approximately \$2,600. "Both gender and original socioeconomic status (SES) strongly predict income, with SES accounting for almost \$4,000 worth of variance in annual income amongst full-time earners and women earning almost \$8,800 less than their male counterparts net of race and social class," reports Matthew.

A third analysis model measured the impact of academic attainment on racial gaps in annual income, treating high school graduates as the reference group. Factoring in the highest academic credential earned, Matthew found that overall, the higher the degree, the higher the paycheck.

"People who lack a [high school diploma](#) earn the least per year relative to all others in the sample, grossing more than \$6,000 less than those who complete high school. Advancing beyond high school pays off handsomely for those who earn bachelor's degrees – a gain of approximately \$6,300 – and even better for people who earn graduate degrees – \$8,200 more than those who only complete [high school](#)," says Matthew. The research also showed that the gap between whites and Asians was no longer significant once highest credentials were accounted for, leaving only the white-black gap as strongly significant among survey participants who were level on background characteristics and schooling.

One surprising finding in factoring for cognitive skills was that success on standardized reading exams negatively impacted income after race,

SES, gender and highest academic credentials were calculated. "The coefficient for this variable is consistently negative across models and is either significant or borderline significant in all areas," reports Matthew. Common thought is that mastery of the English language can lead to advancement up the career ladder. However, Matthew says this generally hasn't held true for women, who typically outperform men on standardized reading exams but bump into the glass ceiling on the climb up the executive ladder. This counterintuitive finding might, therefore, be indicative of gender inequality rather than of lack of importance for reading skills, according to Matthew.

In examining the group's financial success when comparing college selectivity, the research found that the greater the prestige of the postsecondary institution, the more significant the increase in annual income among full-time earners. Matthew adds that this was evident even when accounting for college major. However, accounting for these variables does not meaningfully reduce race gaps. "Neither of these variables meaningfully impacts the race gaps observed in previous models, and the black deficit relative to whites remains strongly significant," writes Matthew.

Checking for added effects of industry selection and occupational title on racial income inequality, Matthew found the gaps relatively unchanged. The black gap relative to whites was reduced by an insignificant amount when compared to college selectivity. Hispanics became relatively even with whites and Asians continued similar advantages over whites found in previous analyses.

In examining the relationship between employment sector and racial wage inequality, Matthew found the most lucrative employment was in the private sector, followed by government jobs, military jobs and non-profits. Black income deficit was slightly reduced, and there was a modest reduction in the Asian economic advantage over whites.

Hispanics picked up a smaller, but non-significant economic advantage over whites. Even after estimating these effects, the white-black gap has remained statistically significant.

Matthew found little effect regarding timely college completion on racial income equality, but black earners were still most affected. "The overall effect of timely college completion is quite strong," adds Matthew.

"Respondents who earned bachelor's degrees within four years enjoy an income of \$3,100 more than others who have not earned college degrees within that time frame."

The annual meeting of the American Sociological Association is themed, "Hard Times: The Impact of Economic Inequality on Families and Individuals," and is examining the multiple ways in which inequality echoes throughout American society and the world.

Matthew says that because society regards academic success as a primary operational definition of merit, he wanted to examine both the tiered impact of [academic success](#) on labor market racial inequality as well as assess the disparity when compared with educational achievement.

He concludes that ultimately, socioeconomic status of origin remains a major factor in determining future income for all races, and says that while cognitive skills and [academic achievement](#) matter for the overall population, they "don't come close" to compensating for remaining disparities between blacks and whites. He adds that both employees and employers would benefit from strengthening the link between academic achievement and early career success – the benefit to employers would be in finding people who would prove to be a long-term asset to their businesses.

Furthermore, he says that the discovery of a negative relationship

between successful standardized test performance and wage compensation deserves more study.

Provided by University of Cincinnati

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