



## The Demographics and Academics of College Readiness in Illinois

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### Executive Summary

Evidence is growing that state and national economic strength is increasingly dependent on an educated workforce, and that some postsecondary education is needed for a growing number of employment opportunities. Furthermore, the skills and knowledge required in the workplace are no longer very different from those needed for success in college. Employers seek well-educated and committed employees. At the July 2005 National Commission for Teaching and America's Future annual meeting, Robert Wehling, former Global Marketing Officer for The Procter & Gamble Company, told the assembled audience in Denver that the exodus of U.S. jobs abroad was not to utilize cheap labor, but to access highly educated and conscientious workforces that were not available in the U.S. The federal government urges states to "leave no child behind" and requires them to monitor progress in raising levels of U.S. student performance over time. But performance gaps continue to persist between different economic and racial/ethnic groups, even among those who reach the bar of high school graduation. Such discrepancies threaten not only Illinois' and the country's economic strength, but also the social contract of our education system to provide all students with opportunities to maximize their learning potential (and thus their earning potential) unfettered by the economic or racial/ethnic characteristics of their families.

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### The Illinois Longitudinal Study of the Class of 2002

In order to help Illinois policymakers and education administrators assess whether its public high school graduates are ready to enter and succeed in college, and to pinpoint some opportunities for improvement, the Illinois Education Research Council is undertaking a six-year longitudinal study following the Illinois Class of 2002 from public high school to college. We will be providing results in a series of upcoming reports. This first report addresses the readiness of the Class of 2002 for college. The next report in this series will address who went to college in the first academic year after high school (2002-2003). A third report will provide results on persistence in college, transfer and discontinuation during the first two years after high school (through 2003-2004). Two additional reports are anticipated at the fourth and sixth years after high school graduation.

## About one third of the Class of 2002 was ready for college

In this first report on the demographics and academics of college readiness in Illinois we show that about one third of the Class of 2002 was ready for college work at a four-year institution, about one third were not/least ready, and one third were in between – somewhat ready for college. It will not be surprising to learn that readiness was not equally distributed by race/ethnicity and family income. About half or more of Native American, black and Latino students were in the not/least ready category compared to about one in five Asian and white students. We found that while readiness rates increased as family income increases for each racial/ethnic group, black and Latino students still lag behind. Even among black and Latino students from high-income families, almost one third fell into the not/least ready category, compared to 6% of Asians and 11% of white students. These simple descriptive statistics paint a picture that is familiar across the nation and underlie some of the concerns to close the achievement gap through initiatives such as No Child Left Behind nationally, and the recent legislation to increase Illinois' high school graduation requirements. But improvements are hard to accomplish in practice. We turned to a complementary line of inquiry regarding school quality and course-taking that sheds additional light on the achievement gap and may provide evidence to stimulate discussion about possible policy interventions.

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*While readiness rates increased as family income increased for each racial/ethnic group, black and Latino students still lag behind.*

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## School characteristics are related to readiness

The IERC has recently developed a Teacher Quality Index (TQI)—an average composite of schools' teacher attributes that research has shown to be related to student performance (described in detail in *The distribution of teacher quality in Illinois*, IERC 2005-1 and available on our website). We used the TQI to ask whether teacher quality helped to explain some of the gap in college readiness for the Class of 2002. What we found was quite striking: black students experience the most extreme inequality of access to high schools with high TQIs—24% of the Class of 2002 were in the high schools with TQIs in the lowest 10% statewide. This is compared to 10% of Latino and Native American students and 1% of Asian and white students. Even black students from high income families are less likely to be enrolled in higher TQI schools than other racial/ethnic groups. We found that the proportion of students ready for college consistently increases for each racial/ethnic group as school TQI increases even when we took other school characteristics (percent poverty and minority) into account. Benefit even accrues by being in schools with TQIs above the lowest quartile. While the mal-distribution of students among schools with different TQI helps to explain the readiness gap overall, the gap persists at each TQI quartile.

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## The math ladder matters

In order to test whether course-taking patterns help to explain the readiness gap, we looked at outcomes for students at different steps on the 'math ladder' (from Algebra I or less to Calculus), and at schools with different TQIs, by race/ethnicity. Our research confirmed earlier findings that college readiness increases as students take increasingly higher-level math courses. But all students, especially minority

students, suffer from being in schools with low TQIs, and the importance of TQI increases the higher up the math ladder students climb. Higher level math courses offered by schools with lower TQIs do not carry the same benefits as courses with the same titles offered by schools with higher TQIs. Taking school TQI into account reduces but does not close the previously observed gap between white and black and Latino minorities who take higher-level math courses. But the high concentration of black and to some extent Latino students in schools with lower TQIs, together with the diminished benefit of taking higher levels of math courses in these schools is, at least partially, responsible for the weaker overall readiness outcomes for these students.

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### School differences explain some but not all of the readiness gap

The different types of schools in which high school students study, measured by their schools' Teacher Quality Index, explains some but by no means all of the readiness gap that we see between black and Latino students compared to Asian and white students. Even when students take higher level mathematics courses, their readiness boost is muted when they are in lower TQI schools. This is especially true for minority students and those in the lowest quartile of TQI schools. It is important to recognize that low TQI schools are also very likely to be high poverty/high minority schools. Students in these high schools often bring with them deficits in prior preparation that compound the challenges teachers face. There are other factors that may continue to influence students' performance, such as teachers' expectations even within school type, the types of courses into which students are placed within a school, how teachers are distributed to classrooms within schools, as well as external pressures, such as need to work, family responsibilities and opportunities to study at home. What is clear, however, is that all students benefit from the opportunity to be exposed to a stronger cadre of teachers in their schools.

### Recommendations

- ***Better information to students about life beyond high school:*** High school students need more help in making the connections between their high school academic experience and what they need to know for success in college and the workplace. Teachers and counselors will need to help students make the connection between a strong academic preparation and success in employment and life.
- ***More academic rigor:*** School policy makers and administrators need to pay much closer attention to the content of high school courses, and ensure that all students have sufficient opportunity to learn demanding content.
- ***Better teaching:*** It is critical that high school teachers have substantial facility with the subject(s) they are teaching so that they can stretch their students beyond what is typically "expected" in many schools.
- ***Increased opportunities to revamp high schools:*** There are many ideas emerging for change, but most share the essential characteristics that high schools need to provide more personalized environments and provide opportunities for students to make connections to the next stage of their life.

- *Stronger articulation between high-school and college curricula:* The new Illinois high school graduation requirements still fall short of Illinois' recommended college admission requirements. A Center for the Study of Education Policy (2005) report makes some useful recommendations that include the joint development of course content guidelines, that high school graduation requirements be aligned with college and university high-school course requirements for admission and the college general education curriculum, and that the state seek continuation of the incremental improvement of high school graduation requirements beyond the new curriculum.
- *Safer school environments:* Safety registers high on the list of concerns, not only for teachers, but also for students. Illinois policy makers and school administrators need to pay even closer attention to this aspect of schools.

Illinois' high school students deserve the best opportunity to gain the knowledge and skills they will need to become successful adults, parents and employees. The suggestions included here can help to move us forward. But they will fail if we do not also address the educational experiences that students have prior to high school. Middle-school reform is critical—students should not arrive in high school already 'left behind'. School leadership is critical to building a professional community, district leadership is critical to ensuring that resources are available and distributed in ways that help teachers in all their schools meet high standards of instruction, and state leadership is critical to providing appropriate funding and regulations that facilitate excellence. We need all of the pieces of the system working in unison to crack the 'college readiness' challenge.

The full report is available at <http://ierc.siue.edu/iercpublication.asp>

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