

College Readiness Among First Time in College (FTIC) Students

In recent years, education reform relating to college and career readiness has topped the priority lists of many states. The weakened economic conditions within Florida and throughout the nation have placed the current education system under considerable scrutiny, resulting in the creation of numerous initiatives that are intended to provide students with the necessary knowledge and skills that are not only crucial for college success but also relevant in the 21st century workforce. According to Achieve, an independent, bipartisan, nonprofit education reform organization based in Washington, D.C., (1) low high school graduation rates, (2) high college remediation rates, (3) increased education and skill requirements of new and growing occupations, and (4) the decrease in well-paying jobs for which a high school education alone is sufficient, are all contributing factors to the revamping of high school graduation requirements.¹ However, modernizing and improving the education system requires cross-sector collaboration to achieve alignment between high school academic standards and requirements of college and careers. To this end, the state of Florida and The Florida College System (FCS) have been proactive in enhancements to education quality at all levels. The FCS has been an active participant in initiatives such as Achieving the Dream, American Diploma Project, Complete College America, and Race to the Top, all of which are aimed at improving student readiness and success.

This report examines trends in readiness levels of First Time in College (FTIC) students in the FCS from 2004-05 to 2009-10. Three subject areas (mathematics, reading, and writing) in which students are tested at the time of admission for appropriate course placement are reviewed, first as an overview of all FTIC students, followed by an analysis disaggregated by race, age, gender, and enrollment status.

¹ Closing the Expectations Gap 2011: Sixth Annual 50-State Progress Report on the Alignment of High School Policies with the Demands of College and Careers. Achieve, American Diploma Project Network.



For the purposes of this report, the following definitions are used:

- **First Time in College (FTIC)** – Students who enter first the FCS and who have never taken a college course, as defined by the Integrated Postsecondary Education Data System (IPEDS). This includes prior year high school graduates, former dual enrollment students, and returning adults who have not been to college before.
- **Lower Level Developmental Education (Mathematics)** – Students who are deemed “Not College Ready” and placed into a non-college credit lower level developmental education course. These courses are further from college level. These students scored less than 47 on the College Placement Test (CPT); less than 16 on the ACT; or less than 380 on the SAT.
- **Upper Level Developmental Education (Mathematics)** – Students who are deemed “Not College ready” and placed into a non-college credit upper level developmental education course. These courses are closer to being at the college level. These students scored in the range of 47-71 on the CPT; 16-18 on the ACT; or 380 – 440 on the SAT.
- **College Ready** – Students who do not require any remediation for mathematics, reading, and writing.

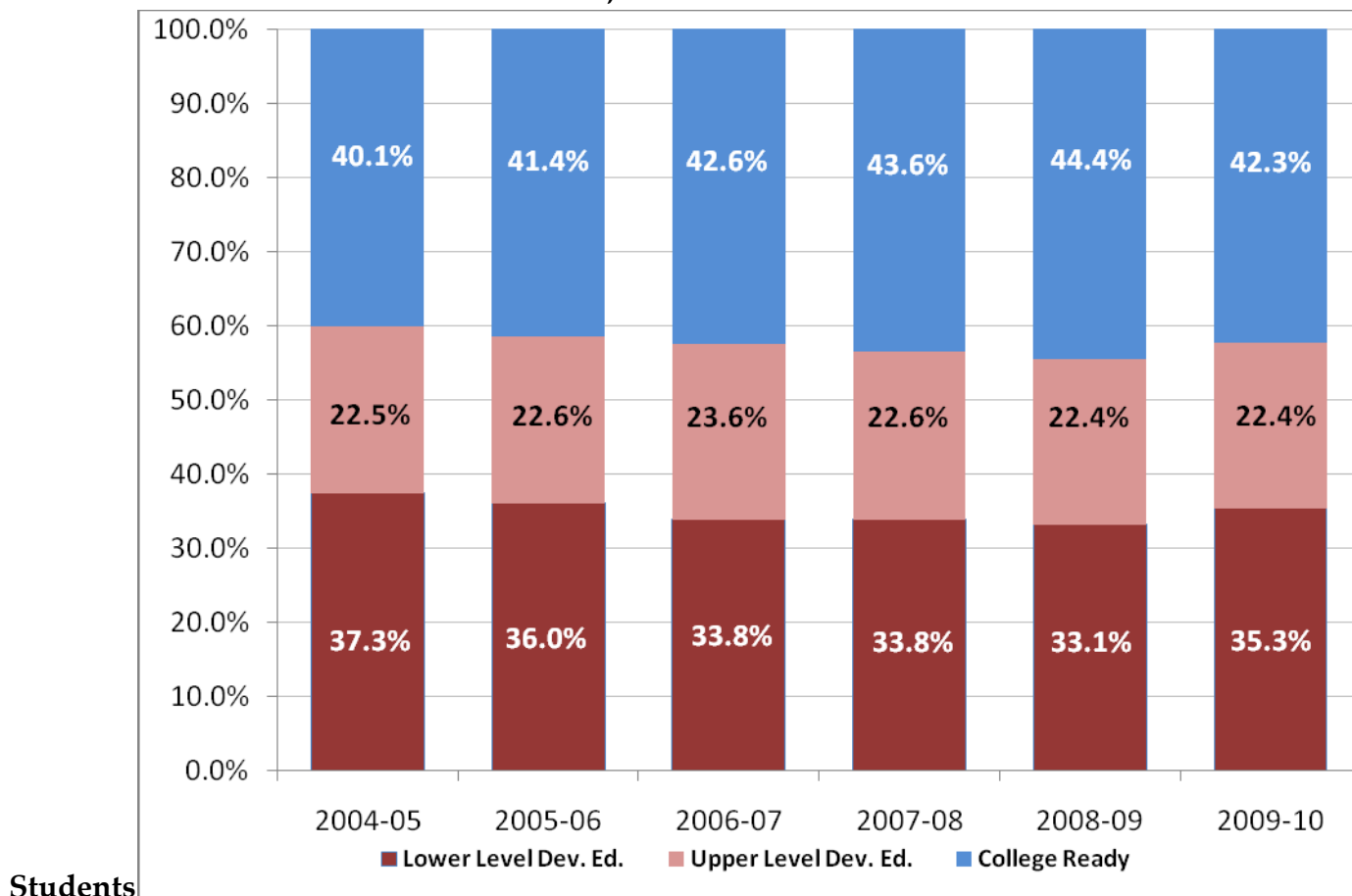
In the data that are used for this report, it should be noted that overall course enrollments in the FCS have increased 14.3%, from 775,788 in 2004-05 to 887,073 in 2009-10, and FTIC student enrollment has also grown proportionately. These trends are reflected in the data presented in the charts and graphs. The proportion of students who needed lower level or upper level developmental education courses are provided for mathematics only. Since mathematics is a subject area in which many students need remediation and must take and pass several preparatory courses to reach college level coursework, initiatives such as Achieving the Dream distinguish between lower and upper level developmental education. This model is followed in this report. College readiness for each subject area (mathematics, reading, and writing) in this report is presented in distinct sections: annual readiness for all FTIC students and subsequently by race, age, gender, and enrollment status.



Annual College Readiness Trends, All FTIC Students

The following charts show year-to-year college readiness trends for all FTIC students in mathematics, reading, and writing. Annual trends for each subject area are discussed in further detail below.

Exhibit 1. Mathematics Readiness Trends, All FTIC

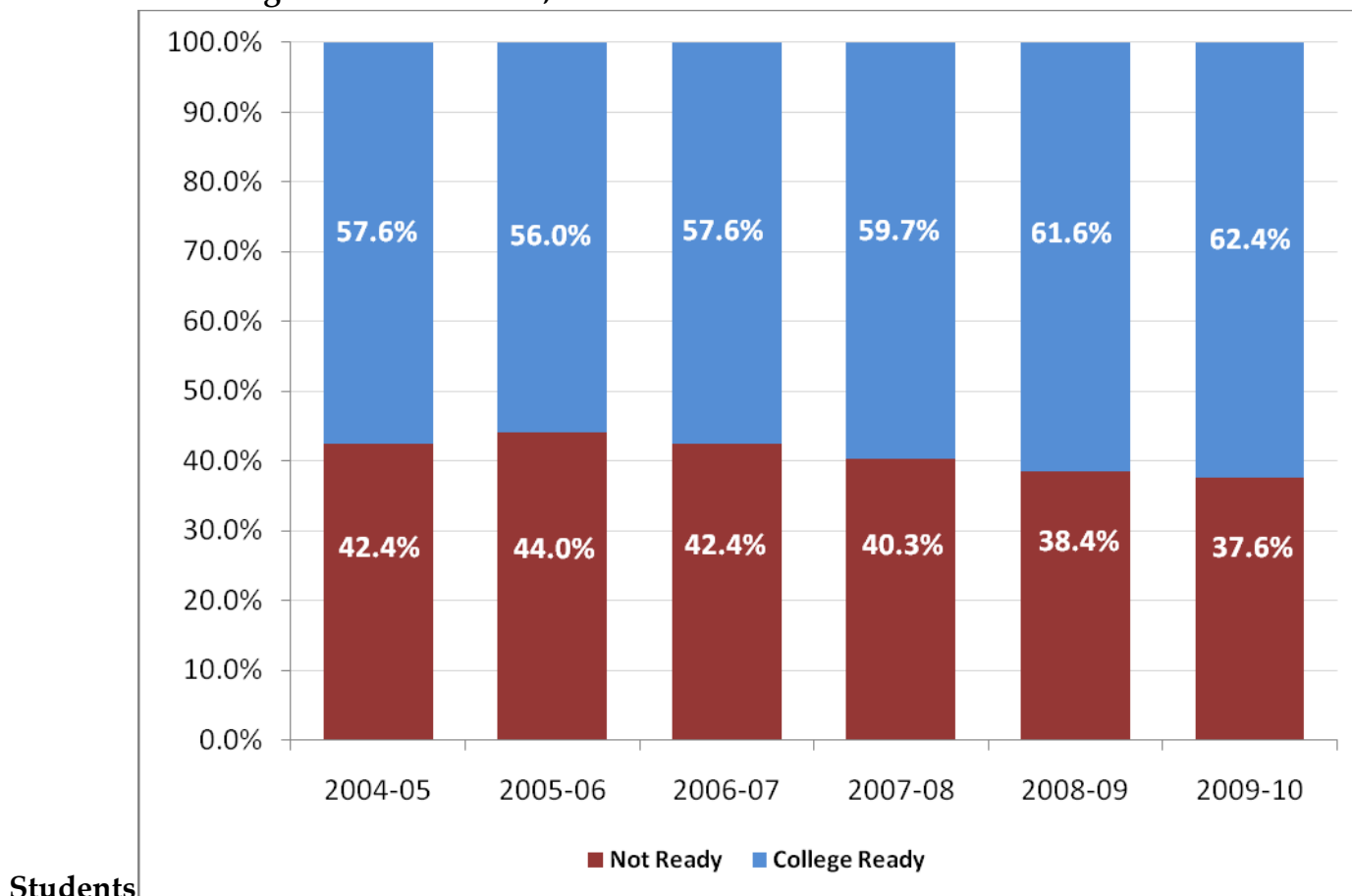


Source: Division of Florida Colleges

Exhibit 1 shows the mathematics readiness trends for all FTIC students from 2004-05 to 2009-10. Up until 2008-09, the proportion of students who were deemed college ready in mathematics was on the rise. However, the percentage of students who needed some level of remediation (lower level or upper level developmental education) was still greater than those who were college ready, despite year-to-year fluctuations. Overall, mathematics readiness appears to historically be the weak point for many FTIC students, with over 50% of students needing some level of remediation each year.



Exhibit 2. Reading Readiness Trends, All FTIC

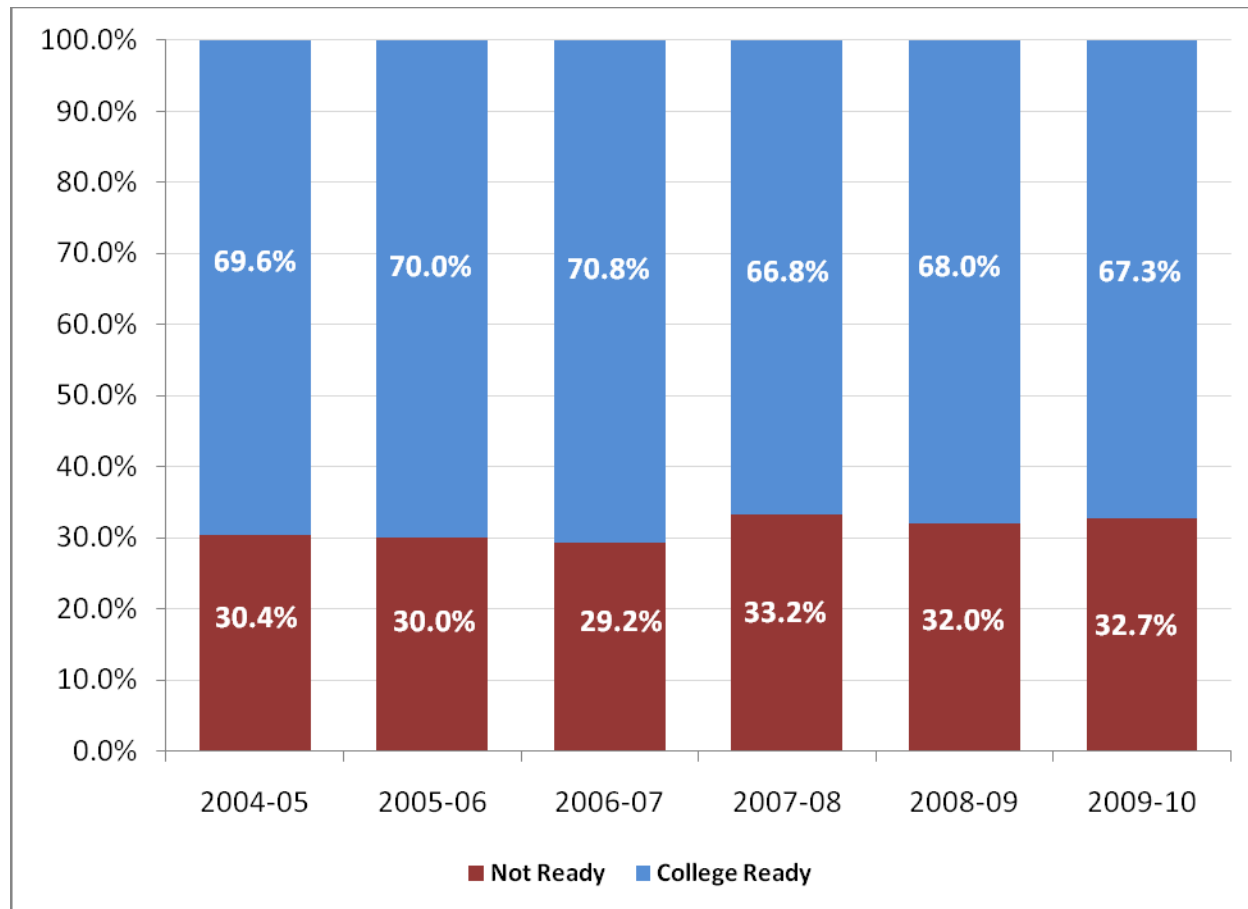


Source: Division of Florida Colleges

Exhibit 2 shows reading readiness trends for all FTIC students from 2004-05 to 2009-10. In 2004-05, over half (57.6%) of FTIC students scored college ready; 42.4% of FTIC students needed to remediate in reading. There was a slight decrease in college ready students and an increase in those who were not college ready (56.0% and 44.0%, respectively) in 2005-06, but college ready rates have steadily improved since. In 2009-10, over 60% of FTIC students were college ready in reading, and the proportion of FTIC students who were not college ready decreased nearly five percentage points since 2004-05.



Exhibit 3. Writing Readiness Trends, All FTIC Students



Source: Division of Florida Colleges

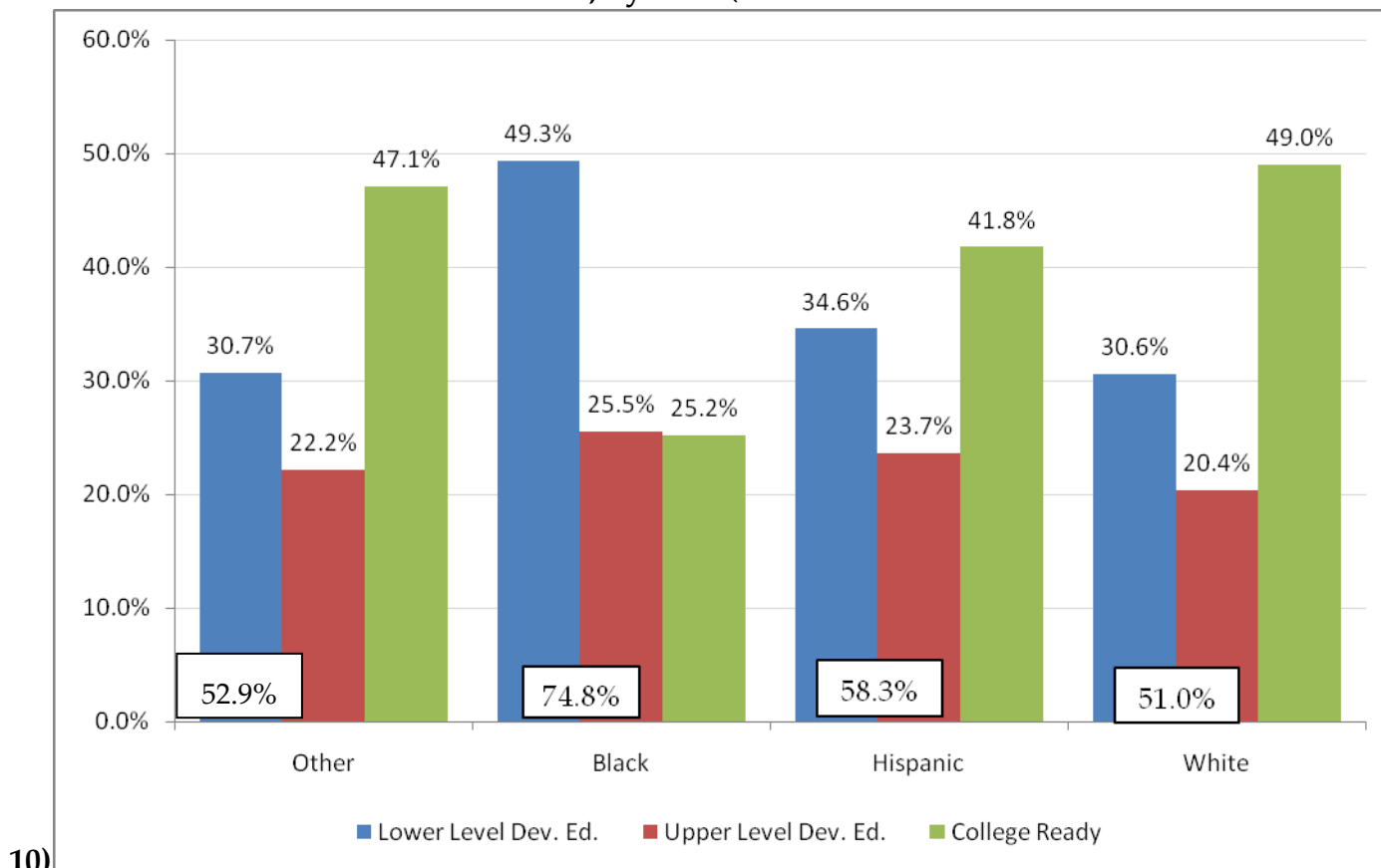
Exhibit 3 shows FTIC writing readiness trends since 2004-05. Although there were slight fluctuations in readiness levels for writing, the trend since 2004 is fairly stable.

College Readiness, by Race

The Florida College System serves as a key entry point to a college education for many students, especially for many minority populations. The charts that follow show college readiness for each subject area by race and ethnicity. In general, students in the Hispanic, white, or “other” (i.e., American Indian, Alaskan Native, Asian, Native Hawaiian, and Pacific Islander) categories were better prepared than their black counterparts.



Exhibit 4. FTIC Mathematics Readiness, by Race (2009-

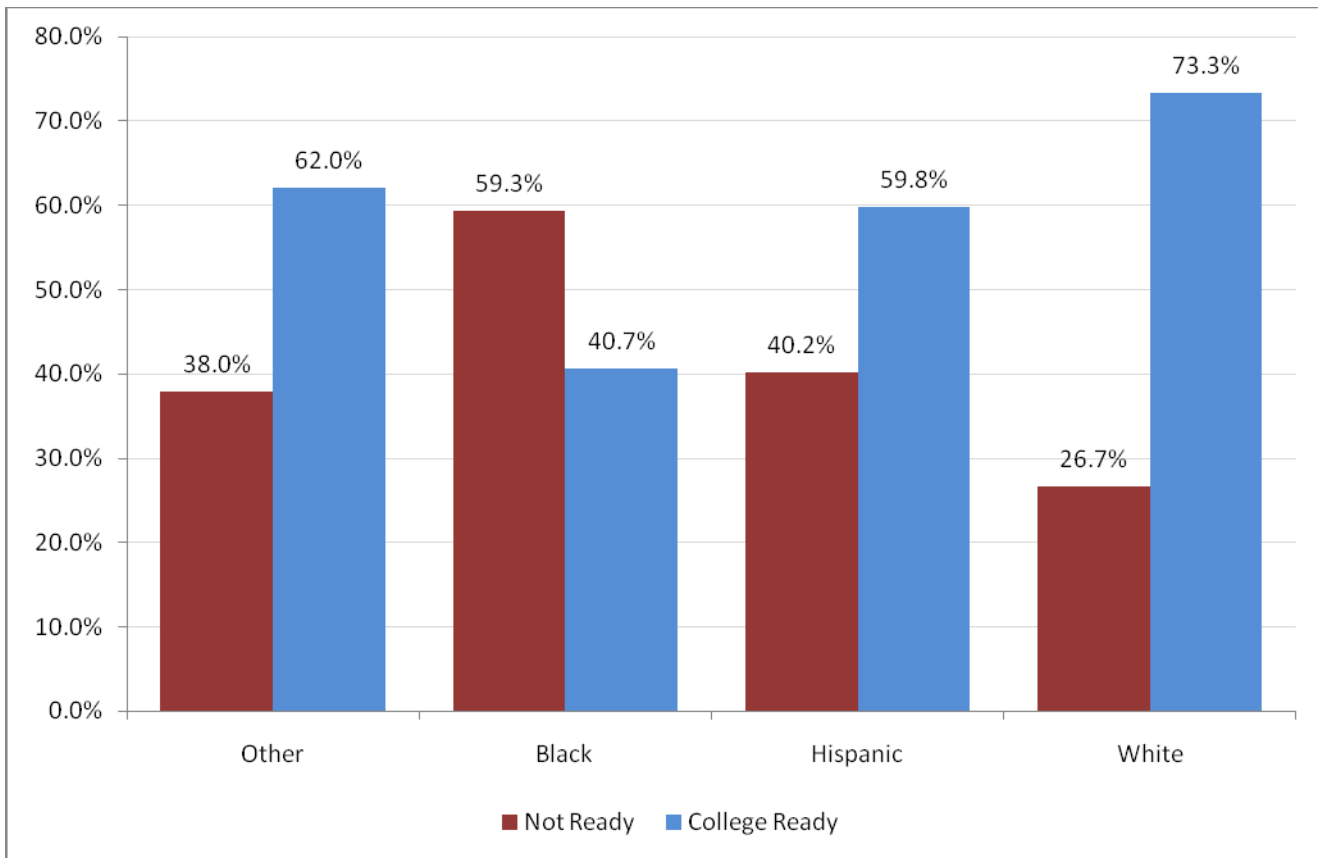


Source: Division of Florida Colleges

Exhibit 4 shows **mathematics** readiness by race in 2009-10. These data show that fewer black students are college ready than other groups by race. Of the four groups (black, Hispanic, white, and “other”), a higher proportion of FTIC black students enter the FCS needing some level of remediation (74.8%). Of those needing remediation, more than half (49.3%) need to begin remediation at the lower levels—this is also the highest among the four groups. Fifty-eight percent (58.3%) of Hispanic students compared to 51.0% of white students needed remediation. In fact, the remediation rate for blacks is 16.5 percentage points higher than that of Hispanic students, the group with the next highest remediation rate.

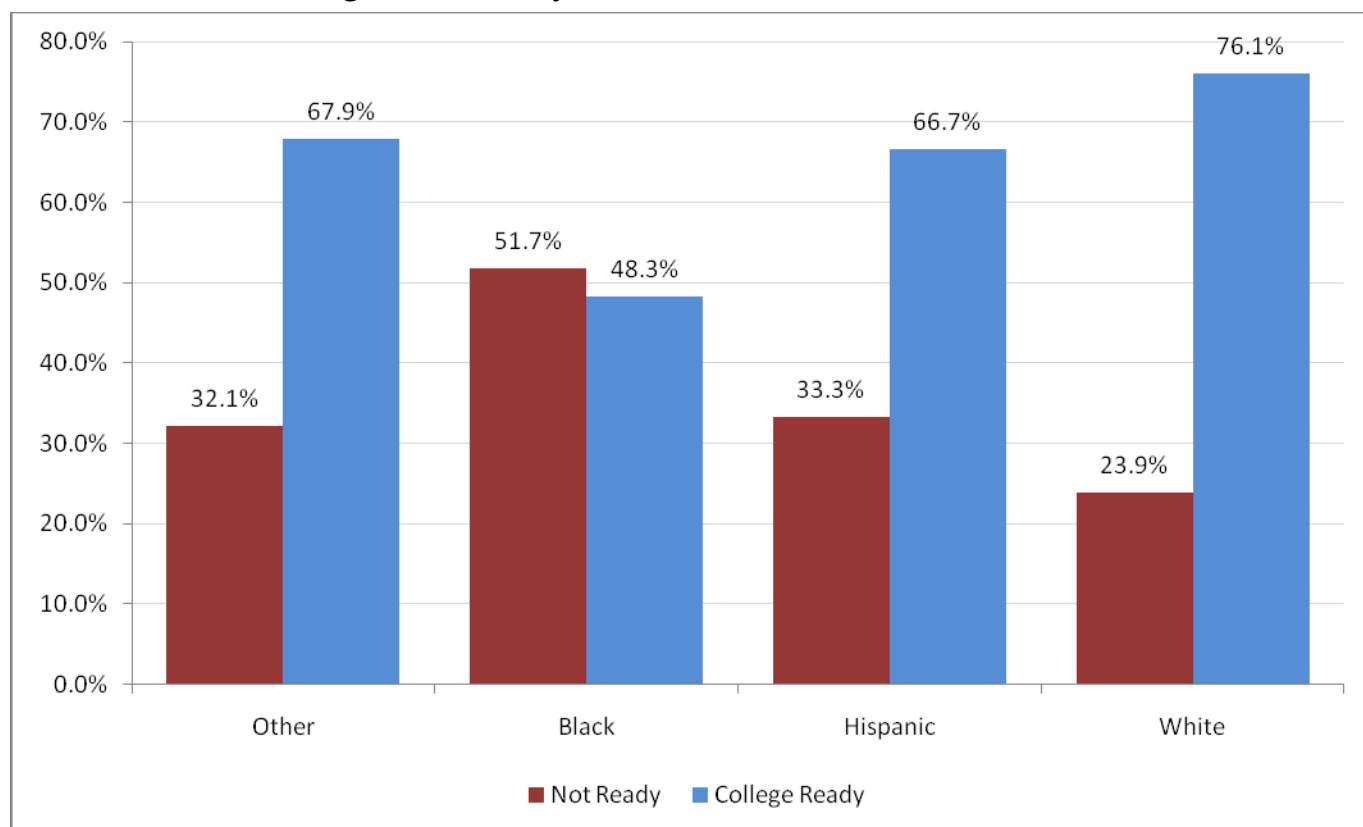


Exhibit 5. FTIC Reading Readiness, by Race (2009-10)



Source: Division of Florida Colleges

Exhibit 5 shows **reading** readiness by race. While the majority of Hispanic, white and “other” students who entered the FCS were deemed college ready in reading, this was not true of black students as a larger proportion of FTIC black students (59.3%) were not ready for reading.

**Exhibit 6. FTIC Writing Readiness, by Race (2009-10)**

Source: Division of Florida Colleges

Exhibit 6 shows **writing** readiness by race. Only 48.3% of black FTIC students were college ready in writing, while 66.7% of Hispanic, 76.3% of white, and 67.9% of “other” FTIC students were college ready. Unlike the other groups, a larger proportion of black FTIC students (51.7%) were not ready in writing

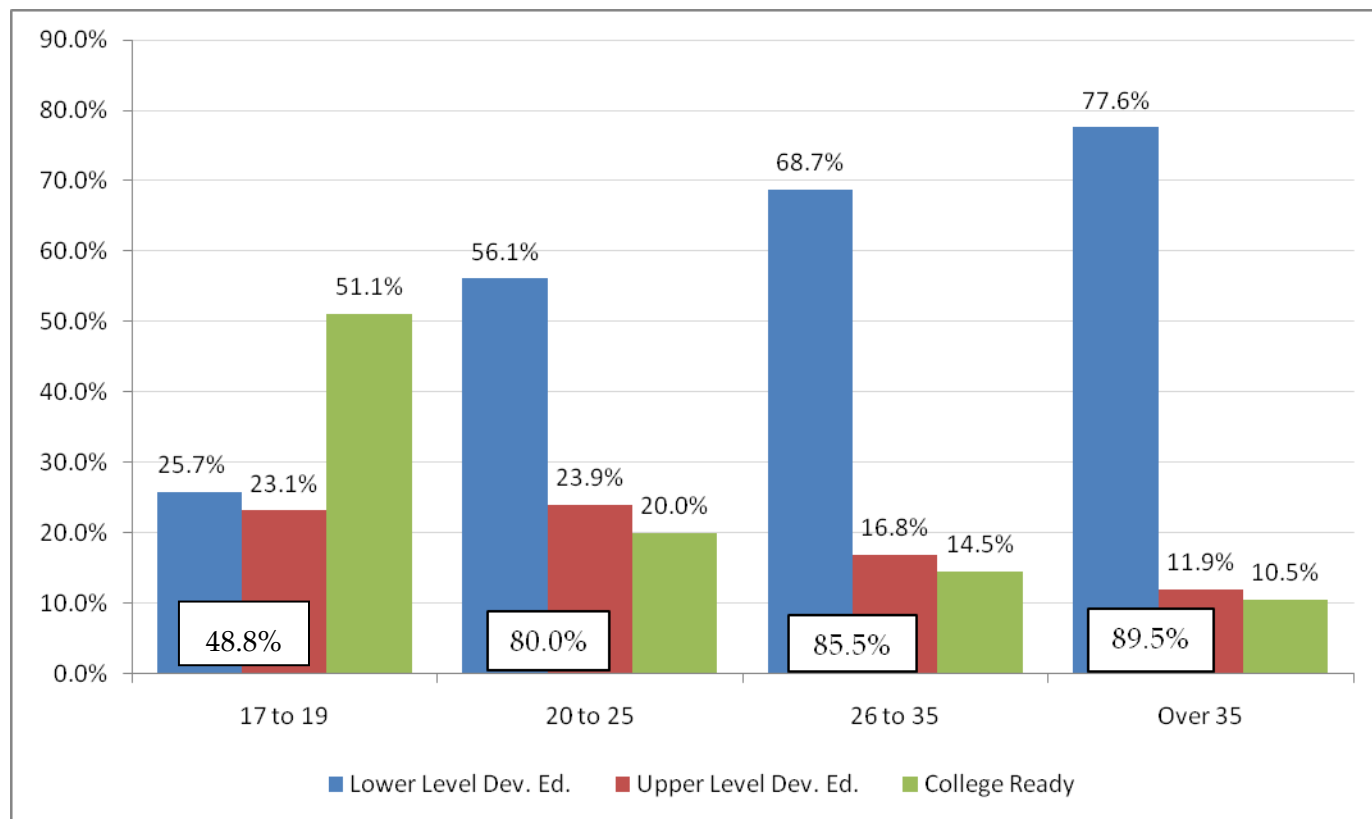
College Readiness, by Age

Another factor that affects college readiness is age. A reasonable assumption that can be made relating to age and college readiness is that time away from any subject area may contribute to the lack of readiness upon entering college for the first time. In some cases, it may just be a matter of becoming reacquainted with a subject area, while in other cases, it is simply a gap in one’s knowledge base. In either case, the charts show that a greater proportion of younger students aged 17 to 19 entered the FCS ready in all three subject areas when compared to FTIC students from other age categories. While there were stark differences in mathematics readiness between 17- to 19-year-olds (most ready) and those over 35 years of age (least ready), discrepancies among age groups for



reading and writing readiness appear to diminish and are not as severe as those for mathematics readiness. Each subject area is discussed individually below.

Exhibit 7. FTIC Mathematics Readiness, by Age (2009-10)



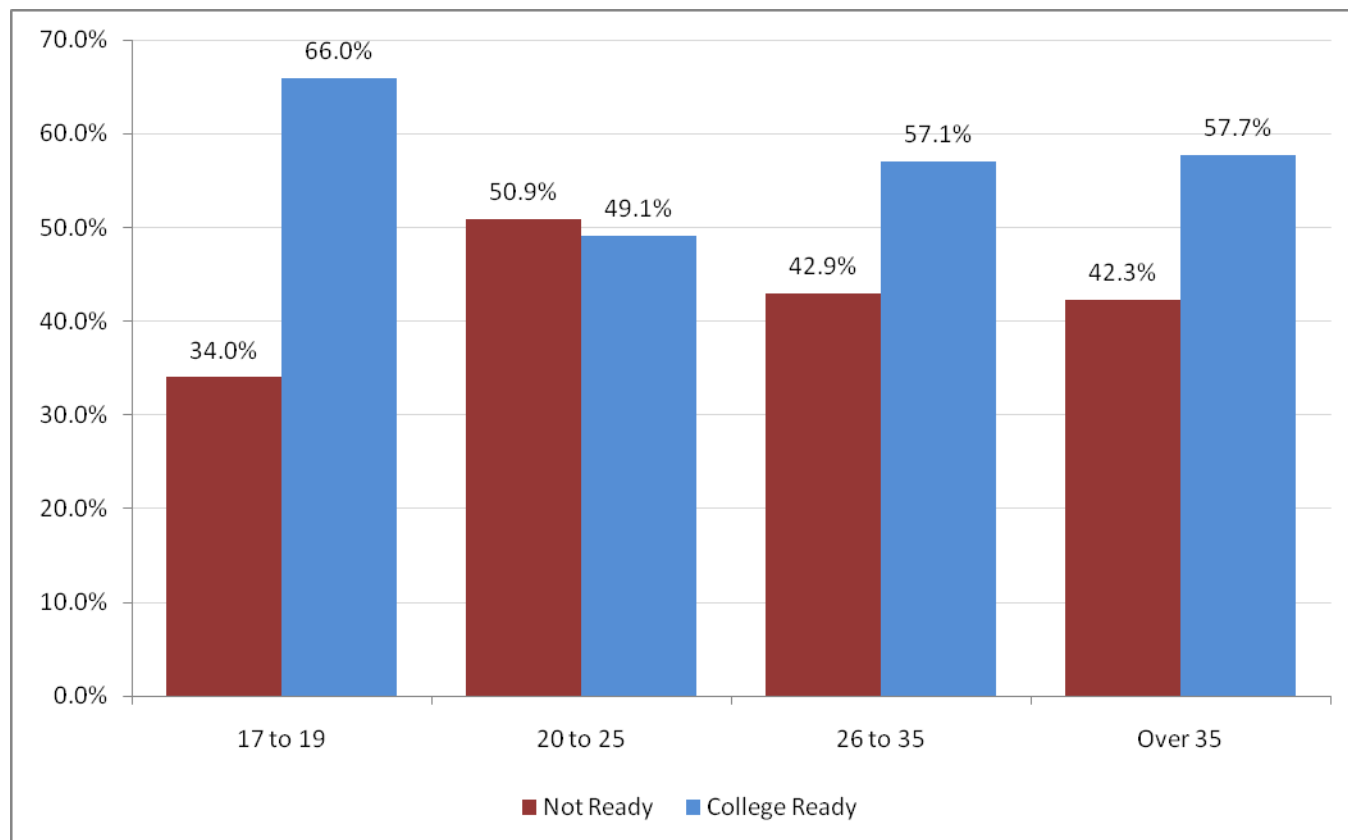
Source: Division of Florida Colleges

Exhibit 7 shows mathematics readiness by age. The percentages shown in the white boxes represent total percentages of remediation needed for each group. These data show that a larger proportion of older students need remediation, even at the lower level. For example, a total of 48.8% of FTIC students aged 17 to 19 needed some level of mathematics remediation while 80.0% of 20- to 25-year-olds needed remediation. From here, the percentages of students needing mathematics remediation by age continue to increase: 85.5% of 26- to 35-year-olds and 89.5% of students 36 years and older needed more remediation. Although nearly half of students 17- to 19-years-old needed mathematics remediation, more of these students entered the FCS ready for college level mathematics (51.1%) than older students. With mathematics skills still “fresh”, more students in this age bracket are better prepared for mathematics when compared to the other age groups. This is markedly different from 20.0% of 20- to 25-year-olds; 14.5% of 26- to 35-year-olds and 10.5% of those aged 36 years and older. Again, this could be a result of diminished mathematics skills and time away from academic work, in which case remediation becomes a “refresher” course as people become reacquainted with



mathematics concepts. Additionally, it could be a reflection of the fact that math requirements for high school graduation are more likely to include algebra in recent years.

Exhibit 8. FTIC Reading Readiness, by Age (2009-10)

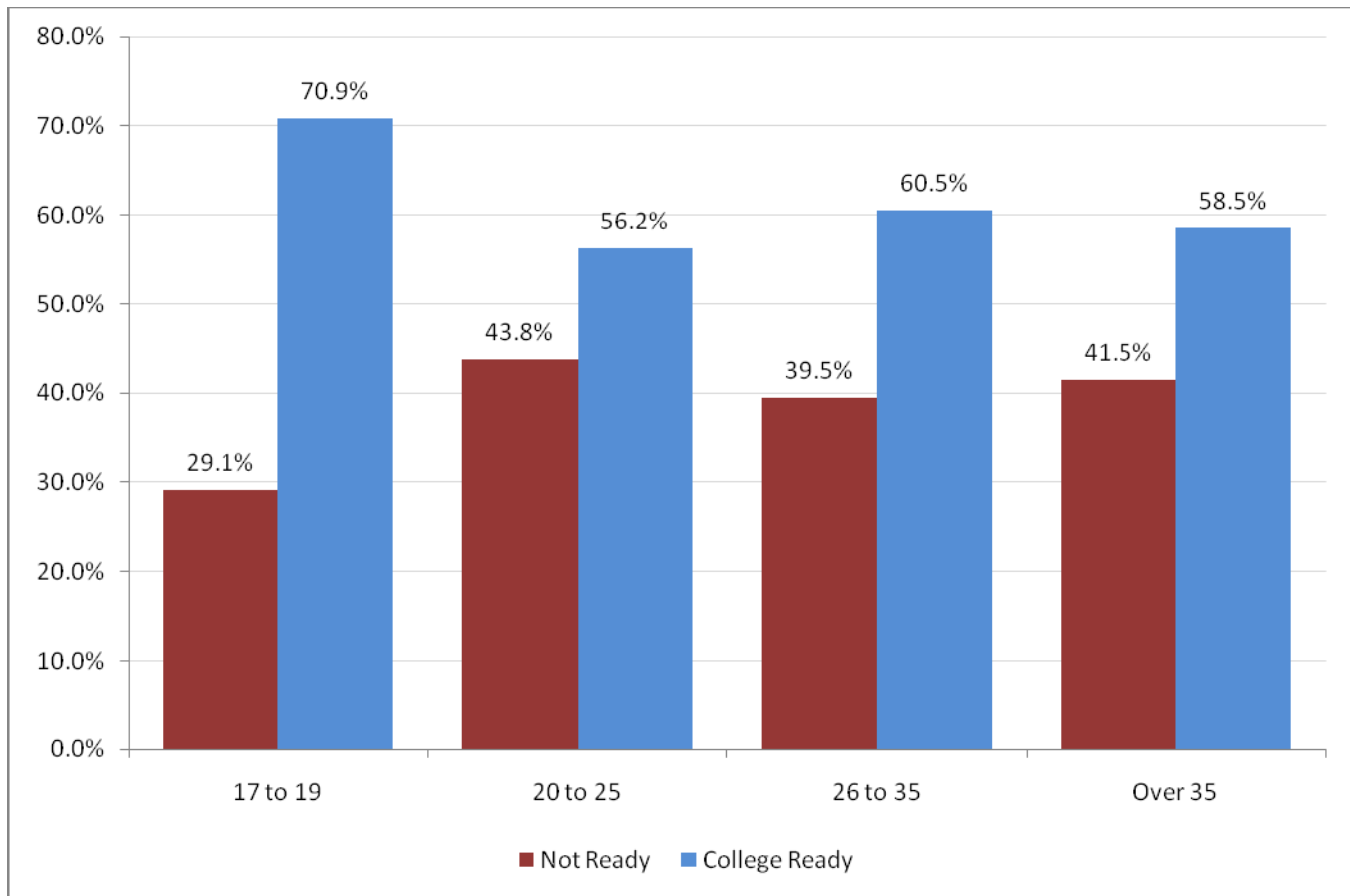


Source: Division of Florida Colleges

Exhibit 8 disaggregates reading readiness by age. Generally, the data show that for 2009-10, more FTIC students were college ready in reading. The exception is the 20- to 25-year-old group, with the proportion of FTIC students who were not college ready exceeding those who were ready. Again, a much larger percentage of younger FTIC students (aged 17-19) compared to other age groups were college ready. Interestingly, FTIC students who were 36 years of age or older were the next group who had a large proportion of individuals who entered the FCS college ready in reading.



Exhibit 9. FTIC Writing Readiness, by Age (2009-10)



Source: Division of Florida Colleges

Exhibit 9 shows that, 70.9% of younger FTIC students (ages 17 to 19) were found to be college ready in the area of writing. As with reading, the 20- to 25-year-old FTIC group represented the largest proportion of students who were not college ready.

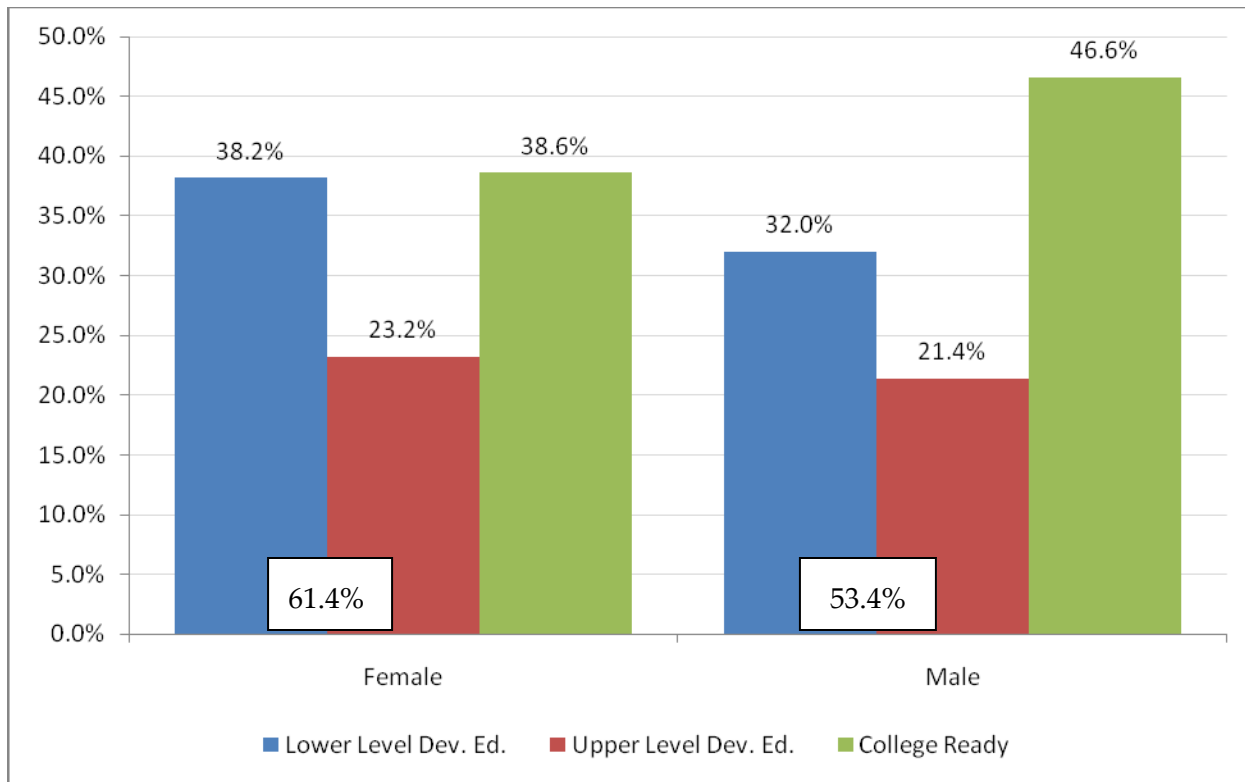
College Readiness, by Gender

The following set of exhibits show college readiness in subject area by gender. In early 2010, it was reported that the gender gap in college enrollments decreased; however, women still outnumber men in higher education.² With regard to readiness levels, the charts indicate that more men enter the FCS with higher readiness levels in mathematics and reading than women. For writing, readiness levels for both genders appear to be similar.

² "Gender Gap Stops Growing," Inside Higher Education, <http://www.insidehighered.com/news/2010/01/26/gender>, January 26, 2010.



Exhibit 10. FTIC Mathematics Readiness, by Gender (2009-10)



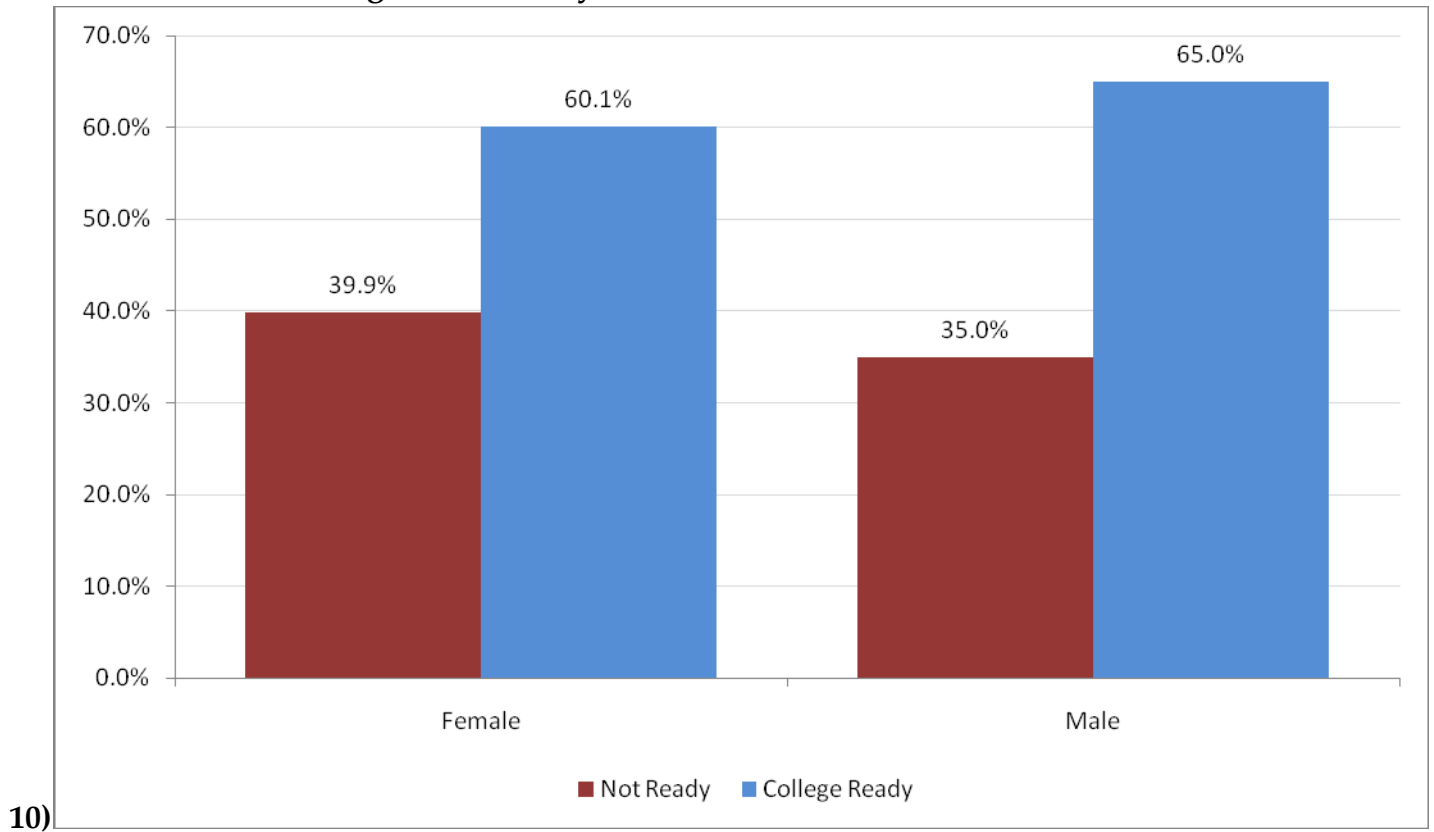
Source: Division of Florida Colleges

Exhibit 10 shows college readiness in mathematics by gender. As shown, a greater proportion of female FTIC students (61.4%) needed mathematics remediation than male FTIC students (53.4%). Fewer male FTIC students needed lower level remedial mathematics (32.0%) compared with 38.2% of female FTIC students. Although males are generally outnumbered by females in higher education, these data show that 46.6% of FTIC males enter the FCS ready for college level mathematics. While recent studies show that females have now reached parity with males in mathematics performance in the U.S., differences in high school course taking patterns can affect performance on standardized tests.³ Therefore, students who take rigorous mathematics or sciences (e.g., physics or chemistry) courses in high school are expected to perform better than those who do not.

³ "Gender, Culture, and Mathematics Performance," Proceedings on the National Academy of Sciences, <http://www.pnas.org/content/106/22/8801.full>, June 2, 2009.



Exhibit 11. FTIC Reading Readiness, by Gender (2009-

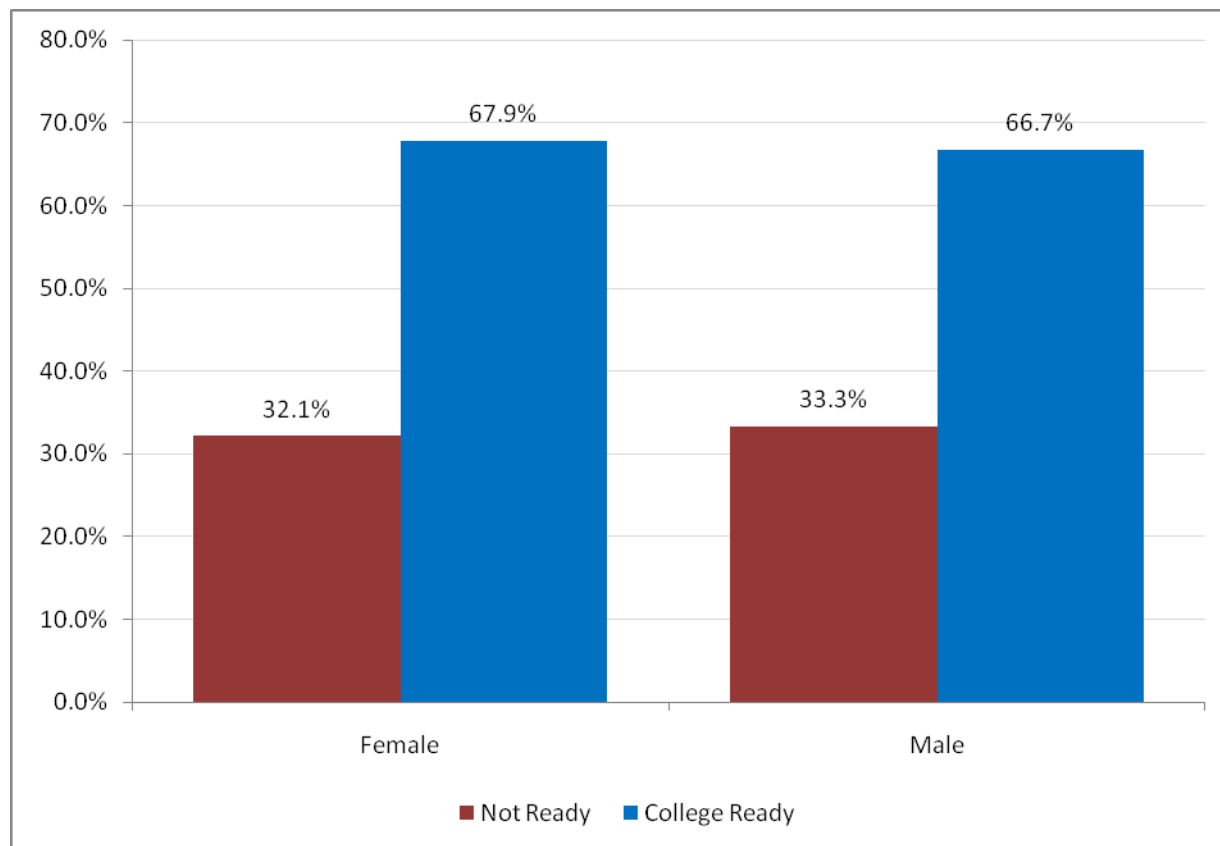


Source: Division of Florida Colleges

Exhibit 11 shows reading readiness by gender. There is less difference between FTIC male and FTIC female readiness in reading, with 65.0% of men and 60.1% of women entering college ready in reading. Despite differences in readiness between the genders, the chart above still shows that large proportions of both FTIC women and men enter the FCS reading at college ready levels.



Exhibit 12. FTIC Writing Readiness, by Gender (2009-10)



Source: Division of Florida Colleges

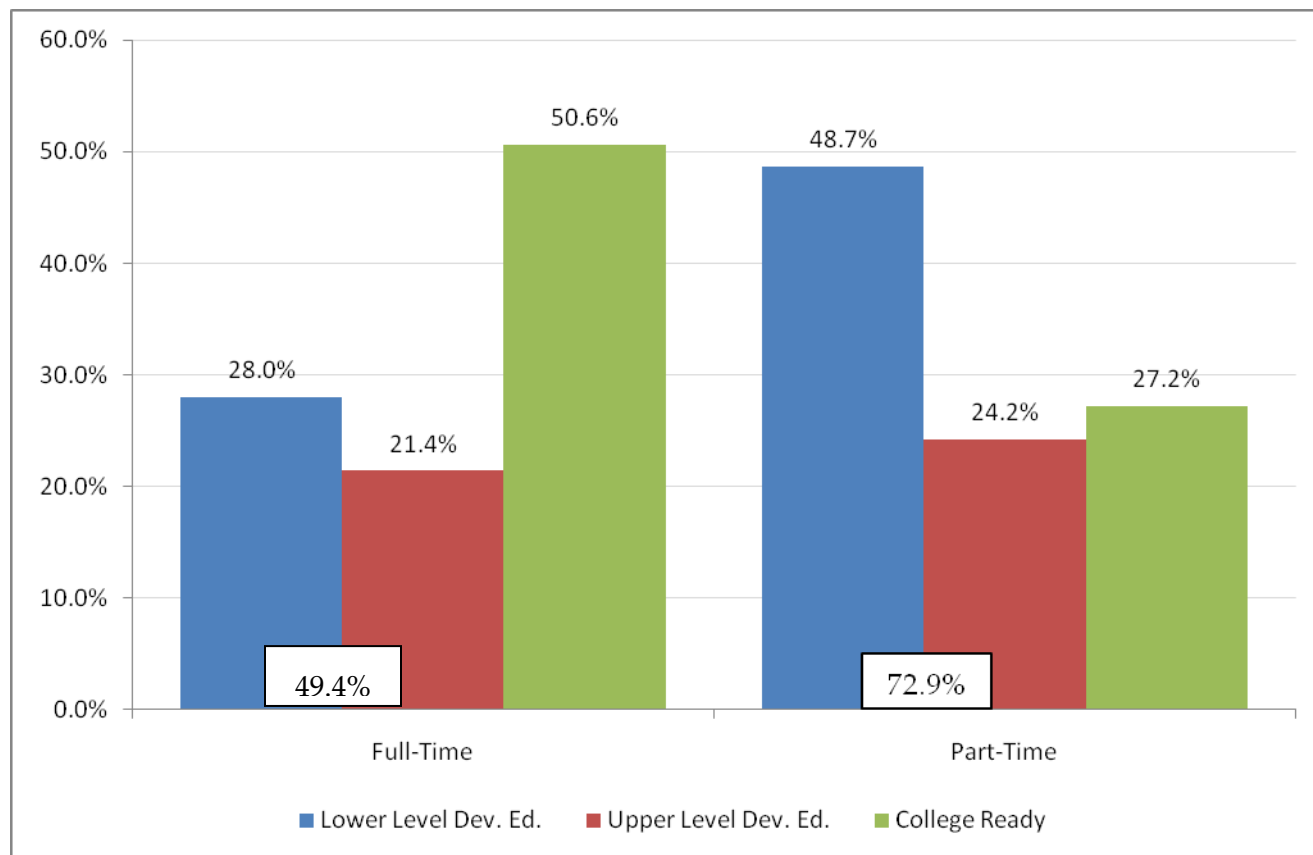
Exhibit 12 shows FTIC writing readiness levels by gender. A slightly greater proportion of FTIC women (67.9%) are prepared at the college level in writing, compared to 66.7% of FTIC men (a difference of 1.2 percentage points). For those who were not college ready, 33.3% were men and 32.1% were women.

College Readiness, by Enrollment Status

The charts below show college readiness by full-time and part-time enrollment status. FTIC students who attended full-time were college ready in larger proportions than those who attended part-time. This is especially concerning since it means part-time students will need more remediation and they are already progressing more slowly. The difference in mathematics readiness shows that nearly twice as many full-time students were ready for college level coursework compared to part-time students. Part-time students may be less prepared due to competing demands of work, family, or other obligations. Additional insights may be drawn from considering age, race and socioeconomic status by full-time and part-time status. However, that analysis is not included in this report.



Exhibit 13. FTIC Mathematics Readiness, by Enrollment Status (2009-10)

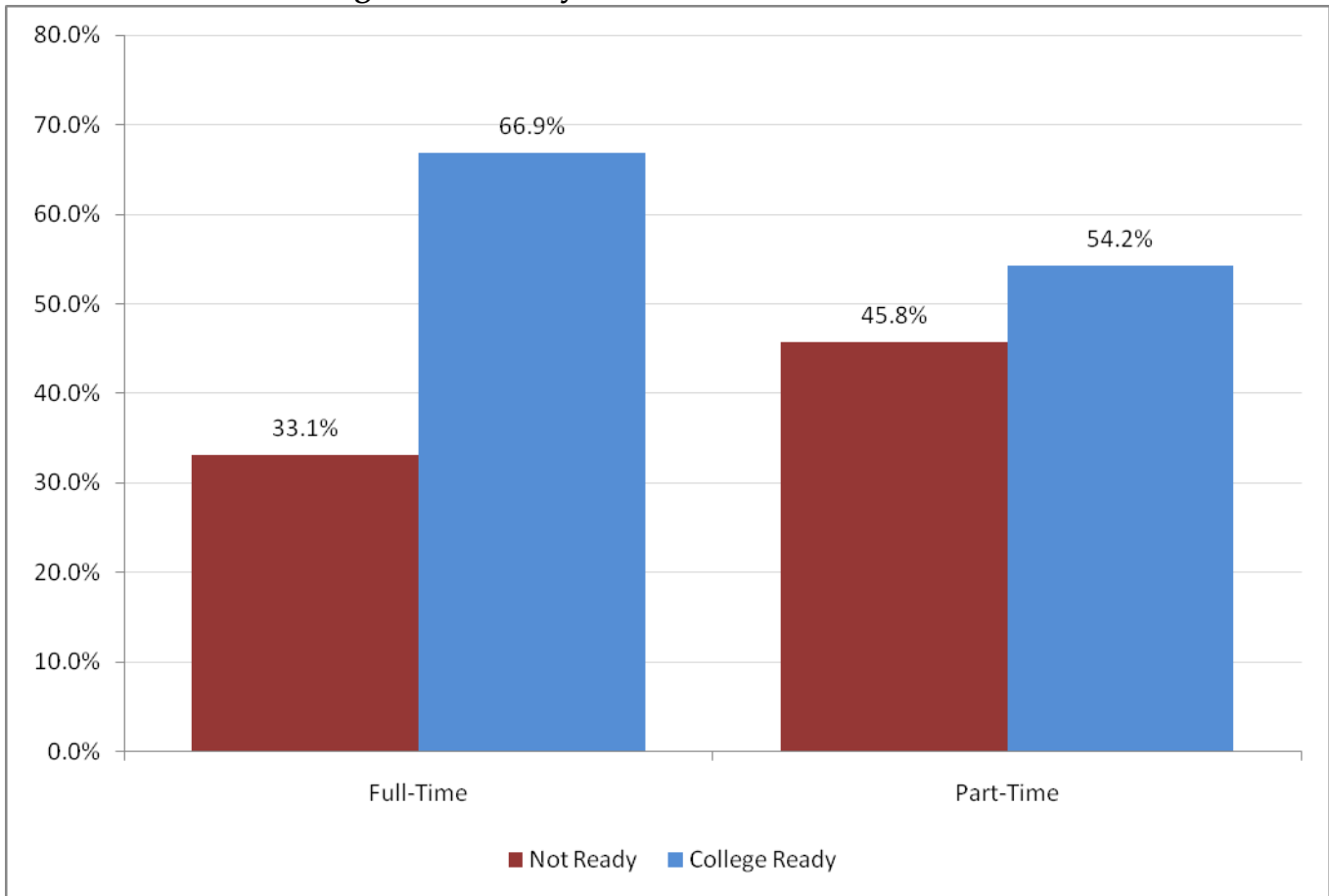


Source: Division of Florida Colleges

Exhibit 13 shows mathematics readiness by full- or part-time status. More part-time FTIC students (72.9%) needed mathematics remediation at some level than their full-time counterparts at 49.4%. Fewer full-time students needed lower level mathematics remediation (28.0%) and upper level mathematics remediation (21.4%). More full-time FTIC students (50.6%) are considered college ready while 27.2% of part-time FTIC students are deemed college ready when it comes to mathematics.



Exhibit 14. FTIC Reading Readiness, by Enrollment Status (2009-10)

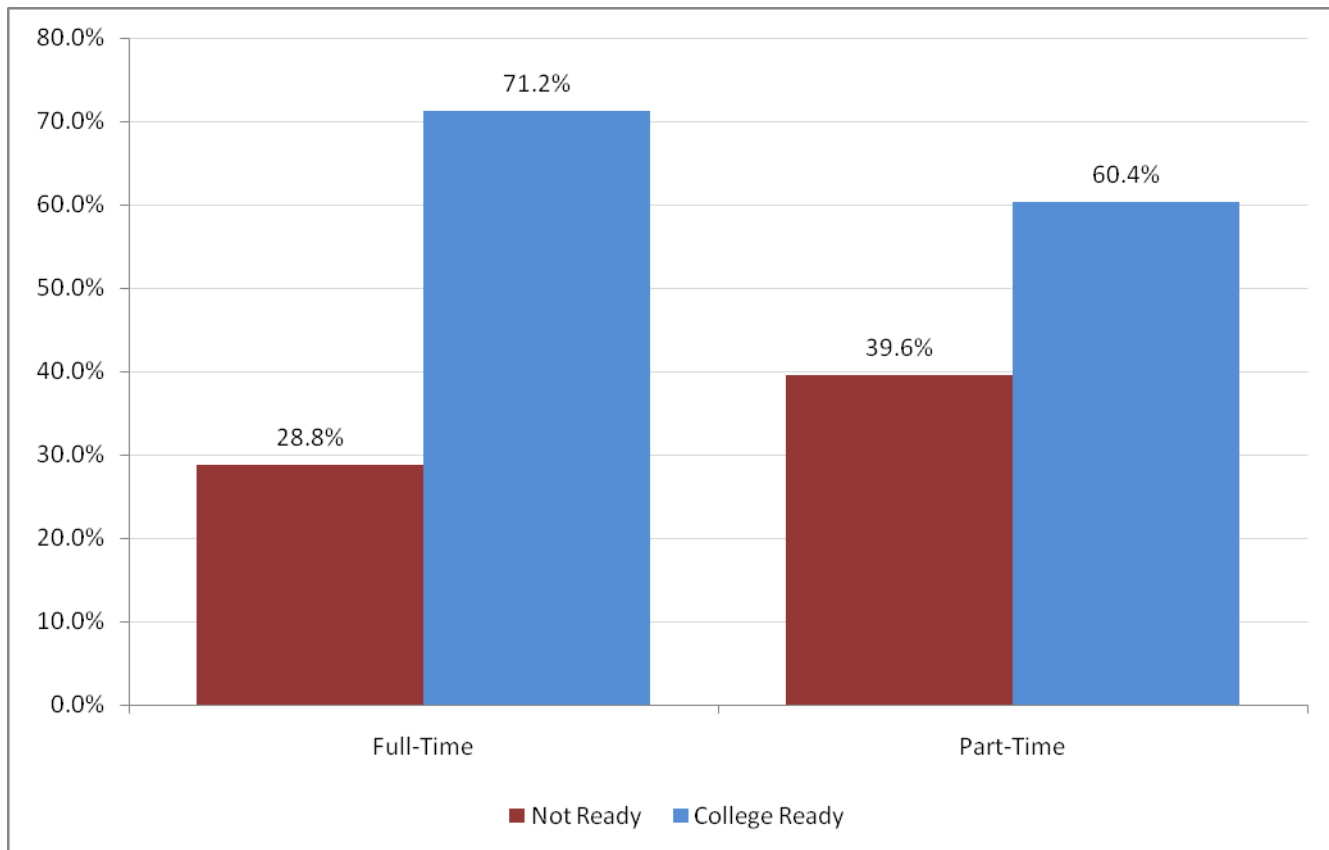


Source: Division of Florida Colleges

Exhibit 14 shows that reading readiness varies by enrollment status. Approximately half of part-time FTIC students enter the FCS college ready in reading and 66.9% of full-time FTIC students enter college ready (a difference of more than 12 percentage points between part-time and full-time students). Fewer full-time students required remediation in reading, compared to 45.8% of part-time students (this also represents a difference of nearly 13 percentage points between the two populations).



Exhibit 15. FTIC Writing Readiness, by Enrollment Status (2009-10)



Source: Division of Florida Colleges

Exhibit 15 shows that a much higher percentage of full-time FTIC students were college ready in writing compared to part-time students. As previously mentioned, there may be other variables (age, race/ethnicity, or other variables) that affect readiness levels of part-time students, not only in writing readiness but also other subject areas.

Summary

Some longitudinal trends relating to mathematics, reading, and writing readiness are as follows:

- Since 2004-05, the overall readiness rate for FTIC students who needed some level of remediation in mathematics decreased from 59.8% to 57.7% in 2009-10.
- FTIC students are entering the FCS in increasing proportions of readiness in reading. In 2009-10, the readiness rate improved to 62.4%, compared to 57.6% in 2004-05.



- Trends show that FTIC students have traditionally been strongest in writing. In 2004-05, the readiness rate in writing was 69.6% and decreased slightly by two percentage points in 2009-10 to 67.3%.

The above data were also disaggregated to show differences among student populations in terms of college readiness. In summary, this report shows the following characteristics among FTIC students and college readiness:

- Mathematics appears to be an area of weakness for most students. In 2009-10, the readiness rate for all FTIC students was 42.3%.
- Age has a significant effect on readiness. Older students are much less college ready.
- The highest proportion of FTIC students needing remediation in mathematics were those 36 years of age and older, with only 10.5% ready for college level coursework.
- The readiness rates in mathematics, reading, and writing for white, Hispanic, and “other” FTIC students were higher than the readiness rates in the same areas for black FTIC students.
- The readiness rates in all three subject areas for full-time students were higher than those for part-time students. A higher proportion of part-time students needed remediation in all subject areas.
- While women outnumber men in higher education, the readiness rate in mathematics and reading for FTIC men was higher than for FTIC women.

Conclusion

Based on the information presented in this report, “traditional college students” (i.e., younger, recent high school graduates) tend to be more college ready. That is, more FTIC students who are deemed college ready are attending directly after high school and tend to enroll full-time. A larger proportion of FTIC students who are older or attended part-time are not as ready for college level work. Additionally, black FTIC students lagged behind their peers from other race/ethnic groups in college readiness in all three subject areas.

Current efforts in Florida are aimed at raising the rigor of high school graduation requirements and competencies needed for college and career readiness as well as better aligning and communicating these requirements. These efforts should help to better prepare high school students with the necessary skills they need to be successful. Particular strategies should continue to be developed to help prepare underrepresented or at-risk high school students, as well as non-traditional students (e.g., adult part-time or working students) in strengthening academic skills in all three subject areas.



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