

10/1/2015

BOARD OF REGENTS OF THE UNIVERSITY OF WISCONSIN SYSTEM

Gordon Dining and Event Center– 2nd floor
770 W. Dayton Street, Madison, Wisconsin
Friday, October 9, 2015

8:45 a.m. All Regents – Annual Regent Photo – Concerto Room

II.

9:00 a.m. All Regents – Symphony Room

1. Calling of the roll
2. Approval of the minutes of the September 10-11, 2015 meeting
3. Report of the President of the Board
 - a. Hospital Authority Board and Wisconsin Technical College System Board reports
 - b. Update on Tenure Policy Task Force
 - c. Additional items that the President may report to the Board
4. Report of the President of the System
 - a. News from around the UW System
 - b. Legislative and other updates
 - c. Faculty spotlight
5. Report and approval of actions taken by the Business and Finance Committee
6. Report and approval of actions taken by the Capital Planning and Budget Committee
7. Report and approval of actions taken by the Research, Economic Development, and Innovation Committee
8. Report and approval of actions taken by the Education Committee
9. *Presentation and Discussion*: Report on Strategy and Progress on Developmental/Remedial Education in the University of Wisconsin System
10. *Presentation and Discussion*: Proposed Federal Communications Commission Incentive Spectrum Auction
[Resolution II.10.]
11. Regent communications, petitions, and memorials

Adjourn

Thursday's closed session agenda item may be considered during any recess in the regular meeting agenda on either Thursday or Friday.

REPORT ON STRATEGY AND PROGRESS ON DEVELOPMENTAL/REMEDIAL EDUCATION IN THE UNIVERSITY OF WISCONSIN SYSTEM

In November 1988, the Board of Regents adopted Resolution 5088, requiring students with mathematics or English deficiencies to take remedial coursework. The Board required a report on the status of remedial education in the UW System on an annual basis. In 1997, the Board of Regents adopted Resolution 7382, which changed the reporting cycle from one to three years. The 2015 Report on the Status of Remedial Education is available in Appendix A.

In August, 2014, President Cross spelled out two ambitious goals for the University to address in the next five years. First, the University would aim to reduce the number of students entering the UW System needing remedial math. Second, the University would seek to increase the first-year completion rate among students who require remedial math coursework.

Since that time, the University of Wisconsin System has initiated strategies to address the dual goals of reducing the need for remedial education and improving the success of developmental education.

REQUESTED ACTION

For information only.

DISCUSSION

New freshmen who are admitted to the University of Wisconsin System come with varying levels of preparedness for success in college-level math and English. Although the majority of new freshmen leave high school with a level of preparation that meets or exceeds that required by their respective UW institution, some students who are admitted have deficiencies that need to be remedied through additional coursework. The goal of the remediation requirement is to ensure that all new freshmen possess the necessary competencies to succeed in higher education. The individual UW institutions determine how these required remedial classes are offered and oversee the specific curriculum, standards, and methods of instruction.

Initiatives

The following initiatives address the dual strategies set out by President Cross in 2014.

1. Reduce the Need for Math Remediation
 - a. Communication and Feedback to K-12
 - Increase the use of the Early Math Placement Tool
 - Develop College Readiness Webinars
 - Report to High Schools on Student Placement and Success
 - b. UW Internal Strategies
 - Define Pathways from high school math to college credit courses
 - Moving Up Strategy through the Gates Grant
 - Development and expansion of summer Bridge Programs

2. Improve Success of Developmental Math Education through Instructional Redesign

Interim Vice President David J. Ward will present on the status of the above initiatives and on findings from the required report on Remedial Education in the University of Wisconsin System.

Summary of the Report on the Status of Remedial Education in the UW System

The percentage of new freshmen who were required to take math remediation declined from 21 percent to 20.6 percent over the most recent three-year period covered in the updated report on remedial education in the UW System. Over the same period of time, the percentage of students who needed English remediation increased slightly, from 7.9 percent to 9.2 percent.

Students are more likely to complete English remediation in their first year than they are to complete math remediation. Seventy-two (71.6) percent complete the English requirement and 67.1 percent of students complete the math remediation requirement in the first year.

Retention to the second-year is a measure of success for remedial education programs. The data indicate a positive effect on retention for students who were identified as needing remediation and completed remedial coursework within their first year. Second-year retention rates for students who both needed and completed remediation are very close to the rates for students who did not require remediation. This holds true for students needing and completing either math or English remediation (math 78.6 percent and English 72.5 percent). These rates are significantly higher than the second-year retention rates of students who were required to take remediation but did not complete the requirement within the first year.

Six-year graduation rates provide a picture of the long-term success of students who required remediation. The graduation rates are presented as the proportion of new freshmen who started at one UW institution and graduated from any institution within the UW System. Of the new freshmen who needed and completed remediation in the first year, 56 percent needing math remediation and 43.3 percent needing English remediation graduated within six years. Overall, the six-year graduation rate is 69 percent.

The majority of students admitted to the UW System are ready for and capable of pursuing college-level math and English courses. However, every year some students are admitted who are considered to have the potential to succeed but have deficiencies in math or English. The UW System institutions are engaged in a variety of efforts to reduce the need for math and English remediation and ensure that students who need remediation are retained and graduate.

RELATED POLICIES

Regent Policy Document 4-8

Report on Remedial Education in the UW System: Demographics, Remedial Completion, Retention, and Graduation September 2015

Introduction

In November 1988, the Board of Regents adopted Resolution 5088, requiring students with mathematics or English deficiencies to take remedial coursework. The Board required a report on the status of remedial education in the UW System on an annual basis. In 1997, the Board of Regents adopted Resolution 7382, which changed the reporting cycle from one to three years.

New freshmen who are admitted to the University of Wisconsin System come with varying levels of preparedness for success in college-level math and English. Although the majority of new freshmen leave high school with a level of preparation that meets or exceeds that required by their respective UW institution, some students who are admitted have deficiencies that need to be remedied through additional coursework. The UW System requires students who have been identified as being under-prepared in the areas of math or English to take remedial coursework. The goal of this requirement is to ensure that all new freshmen possess the necessary competencies to succeed in higher education. The individual UW institutions determine how these required remedial classes are offered and oversee the specific curriculum, standards, and methods of instruction.

This report is divided into several sections and appendices. The first several sections include the remediation needs of the incoming fall new freshmen cohort, completion of remediation, and success measures of students requiring and completing remediation. The final section of this report highlights institutional efforts to reduce remediation and promote the success of students who required remediation.

- Section I: Trends in Math and English Remediation
- Section II: Math and English Remedial Requirement by Selected Characteristics
- Section III: Math and English Remediation Completion in the First Year
- Section IV: Retention Rates by Math and English Remediation
- Section V: Six-Year Graduation Rates by Math and English Remediation
- Section VI: Efforts to Reduce Remediation and Promote Student Success
- Appendix A: University of Wisconsin System Regent Policy Document: Section IV, 4-8 Remedial Education Policy
- Appendix B: Math Remediation Required and Completed in the First Year by UW Institution
- Appendix C: English Remediation Required and Completed in the First Year by UW Institution
- Appendix D: New Freshmen Placed into Math Remediation by Student Characteristic
- Appendix E: New Freshmen Placed into English Remediation by Student Characteristic
- Appendix F: Math Remediation Completed in the First Year by Student Characteristic
- Appendix G: English Remediation Completed in the First Year by Student Characteristic

Report Highlights

- ◆ The percentage of new freshmen requiring math remediation has declined slightly from 21.0 percent to 20.6 percent over the most recent three-year time period spanning from fall 2011 to fall 2013. The percentage of new freshmen requiring English remediation increased from 7.9 percent in fall 2010 to 9.2 percent in fall 2013.
- ◆ Compared to math remediation, students are more likely to complete English remediation in their first year. Of new freshmen in fall 2013, the first-year math remediation completion rate was 67.1 percent while the first-year English remediation completion rate was 71.6 percent.
- ◆ The second-year retention rate of students completing math and/or English remediation in their first year is comparable to the second-year retention rate of students who did not require remediation.
- ◆ For students who require math and/or English remediation, completing the requirement in their first year enhances the likelihood of obtaining a bachelor's degree within six years. For fall 2008 full-time new freshmen requiring math remediation, the gap in six-year graduation rates between those who completed the requirement in the first year and those who did not was 31 percentage points. For students requiring English remediation, the gap was 25 percentage points.
- ◆ UW institutions are involved in a variety of efforts with the goal of reducing the need for math and English remediation. UW institutions are working with high schools to align curricula and develop precollege intervention programs. UW institutions are also modifying courses using new technologies and techniques to ensure that students requiring remediation succeed in their coursework. Additional support is provided to students through various programs and supplemental learning services.

Section I: Trends in Math and English Remediation

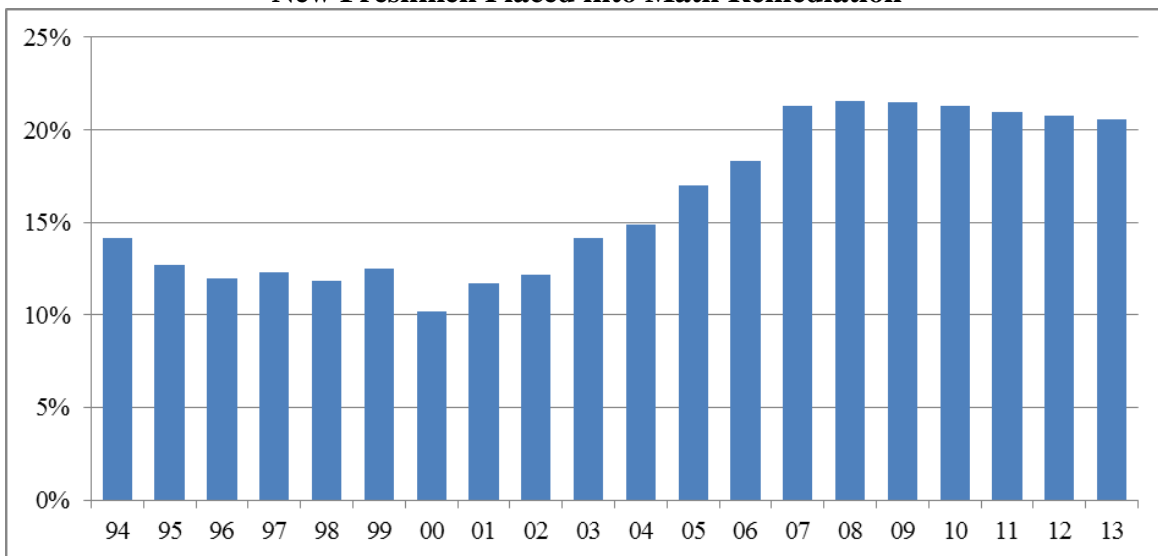
Charts 1 and 2 provide data on the percent of new freshmen placed into math and English remediation from fall 1994 to fall 2013. Over the period since the last report, from fall 2011 to fall 2013, the percentage of new freshmen who were required to take math remediation decreased slightly from 21.0 percent to 20.6 percent. During the same period of time, the percentage of new freshmen requiring English remediation increased from 7.9 percent to 9.2 percent. Appendix B and C contain UW institutional data showing the number and percent of new freshmen requiring math and English remediation.

Over the past 20 years, the percentage of students requiring math remediation was the lowest in fall 2000 (10.2%) and had been increasing until 2008, when the highest percentage of students requiring math remediation was recorded (21.6%). The proportion of students requiring math remediation continues to decline from fall 2009 to the present.

From fall 1994 to fall 2013, the proportion of students requiring English remediation varied between 9.9 percent in fall 2012 and 6.4 percent in fall 2006. In 2013, 9.2 percent of entering new freshmen required English remediation.

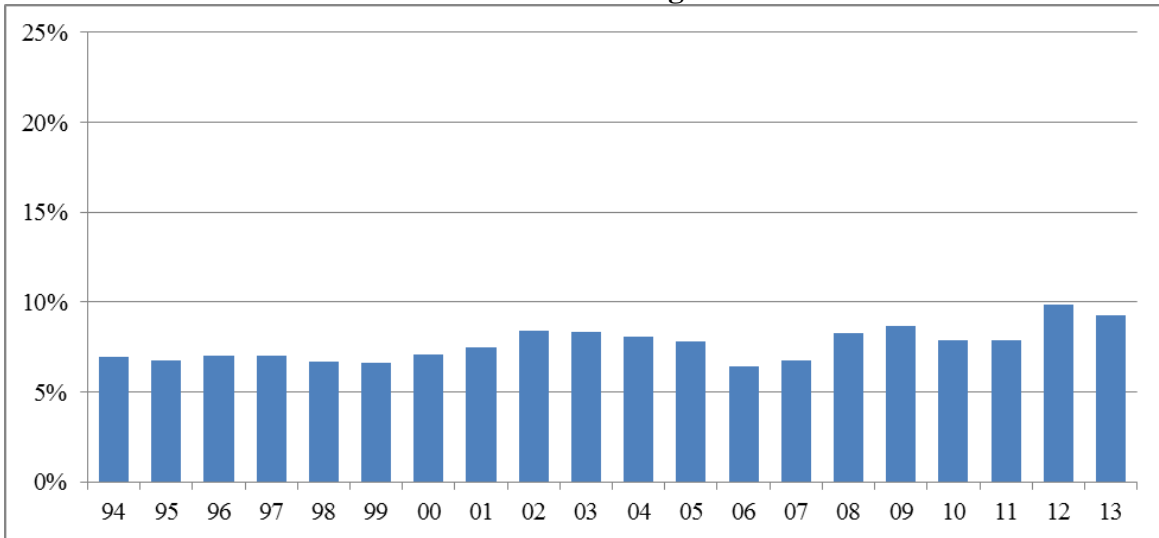
Chart 3 provides data on the percent of new freshmen placed into both math and English remediation from fall 1994 to fall 2013. In fall 2013, 5.7 percent of new freshmen required both math and English remediation. Over the last two decades, the percentage of new freshmen requiring both math and English remediation was the highest in fall 2012 (6.1%) and was the lowest in fall 1999 (3.1%).

Chart 1
New Freshmen Placed into Math Remediation



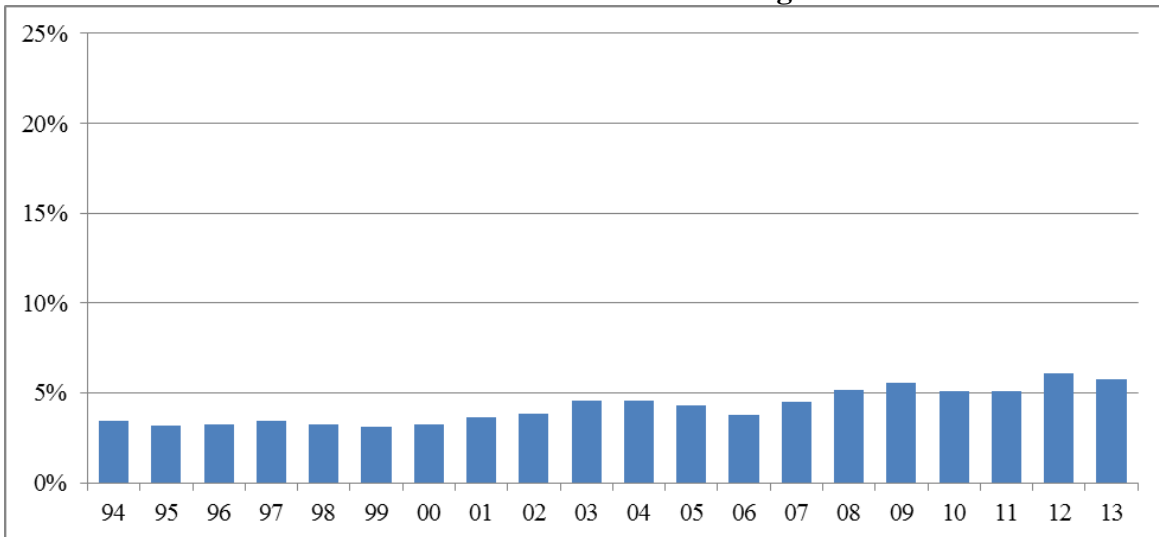
Note: UW institutions use incoming students' scores on the UW System Math Placement Test, ACT/SAT Math subscores, or a combination of these scores to determine if mathematics remediation is needed. Cutoff scores for math remediation differ across the UW institutions and may change over years.

Chart 2
New Freshmen Placed into English Remediation



Note: UW institutions use incoming students' scores on the UW System English Placement Test, ACT/SAT English subscores, or a combination of these scores to determine if English remediation is needed. Cutoff scores for English remediation differ across the UW institutions and may change over years.

Chart 3
New Freshmen Placed into Both Math and English Remediation



Note: UW institutions use incoming students' scores on the UW System Math/English Placement Test, ACT/SAT Math/English subscores, or a combination of these scores to determine if math/English remediation is needed. Cutoff scores for remediation differ across the UW institutions and may change over years.

Section II: Math and English Remedial Requirement by Selected Characteristics of New Freshmen

Charts 4 and 5 show the percentages of new freshmen who were placed into remediation in relation to demographic and academic variables, combining three years of data from fall 2011 to fall 2013. Appendix D and E provide the year-specific numbers and percentages of new freshmen requiring remediation by selected student characteristics.

A higher percentage of females were required to take math remediation (males 18.0% and females 23.2%). Conversely, a slightly higher percentage of males were required to take English remediation (males 9.3% and females 8.7%).

The need for remediation is closely related to high school class rank: the higher the student's class rank, the less likely the need for remediation. From fall 2011 to fall 2013, of students who ranked in the lowest quartile of their high school class, 51.6 percent required math remediation and 27.5 percent required English remediation, contrasting sharply with the highest quartile in which 7.7 percent required math remediation and 3.2 percent required English remediation. Note that the percentages provided in this paragraph are based on the proportion of students for whom high school rank was available.

Underrepresented minority (URM) students include those who indicated African American, American Indian, Hispanic/Latino(a), or Southeast Asian, alone or in combination with other race/ethnicities. New freshmen who are URM students were more likely to require math remediation (38.4%) and English remediation (24.0%) than other groups of students. Among URM students, African Americans were most likely to require math remediation (58.6%) and English remediation (36.1%).

New freshmen age 20 and over were more likely to require math and English remediation than students age 19 and below. For the most recent three cohorts combined, 44.5 percent of students age 20 and over required math remediation while 19.6 percent of students age 19 and below required math remediation. Similarly, 15.2 percent of students age 20 and over were required to take English remediation while 8.7 percent of students age 19 and below required English remediation.

New freshmen who received a Pell Grant have a higher rate requiring math and English remediation than non-Pell recipients. Of new freshmen who received a Pell Grant, 30.5 percent required math remediation and 15.1 percent required English remediation. This compares to 16.9 percent of non-Pell recipients requiring math remediation and 6.5 percent of non-Pell recipients requiring English remediation.

Chart 4
New Freshmen Placed into Math Remediation
by Student Characteristic
Fall 2011 to Fall 2013 Combined

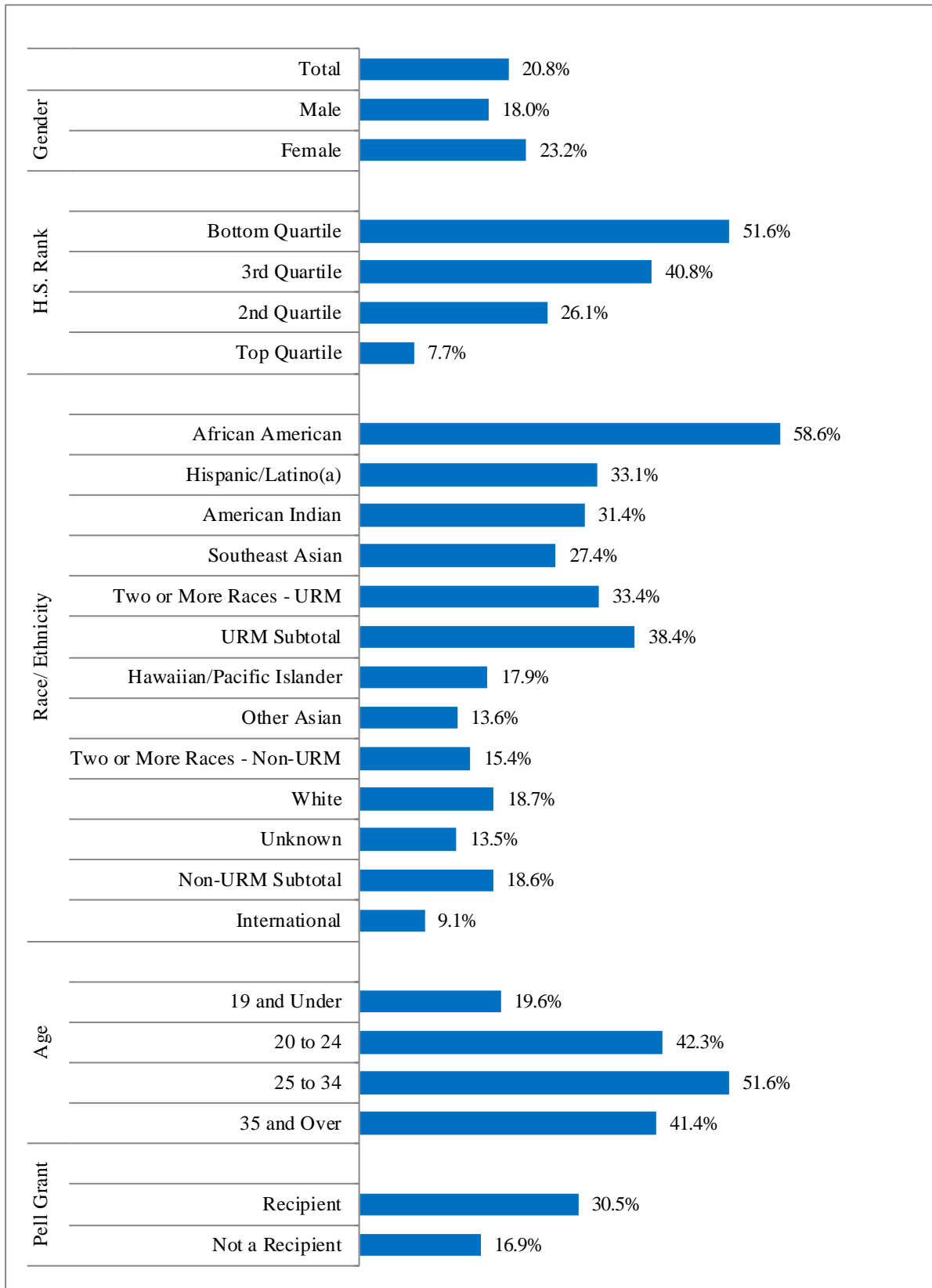
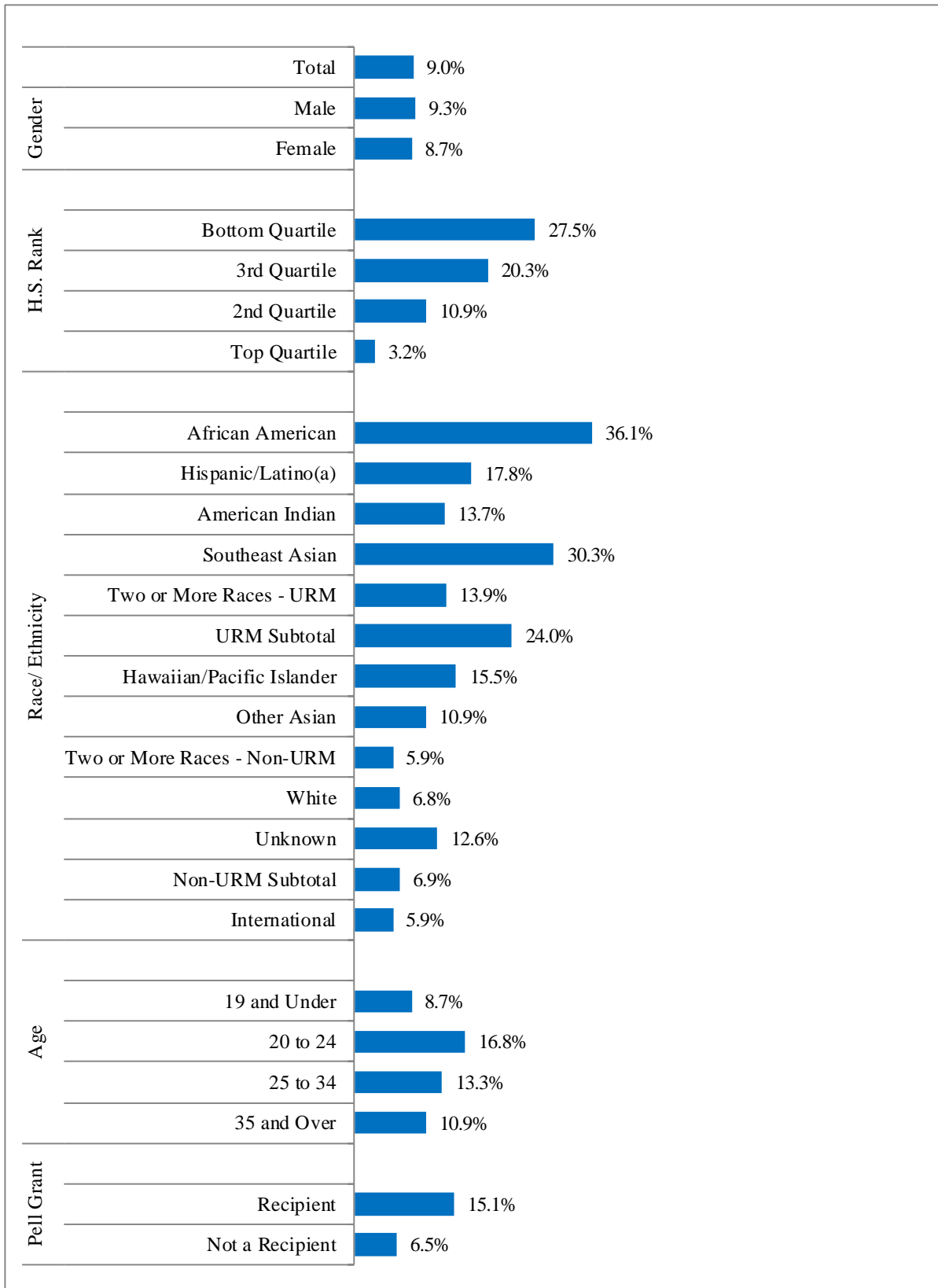


Chart 5
New Freshmen Placed into English Remediation
by Student Characteristic
Fall 2011 to Fall 2013 Combined

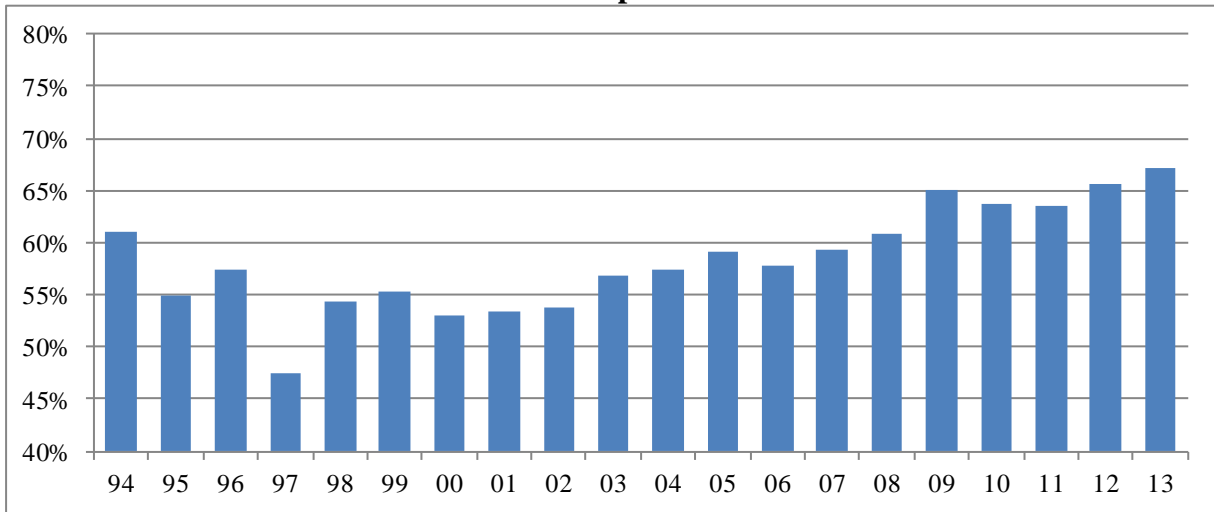


Section III: Math and English Remediation Completion in the First Year

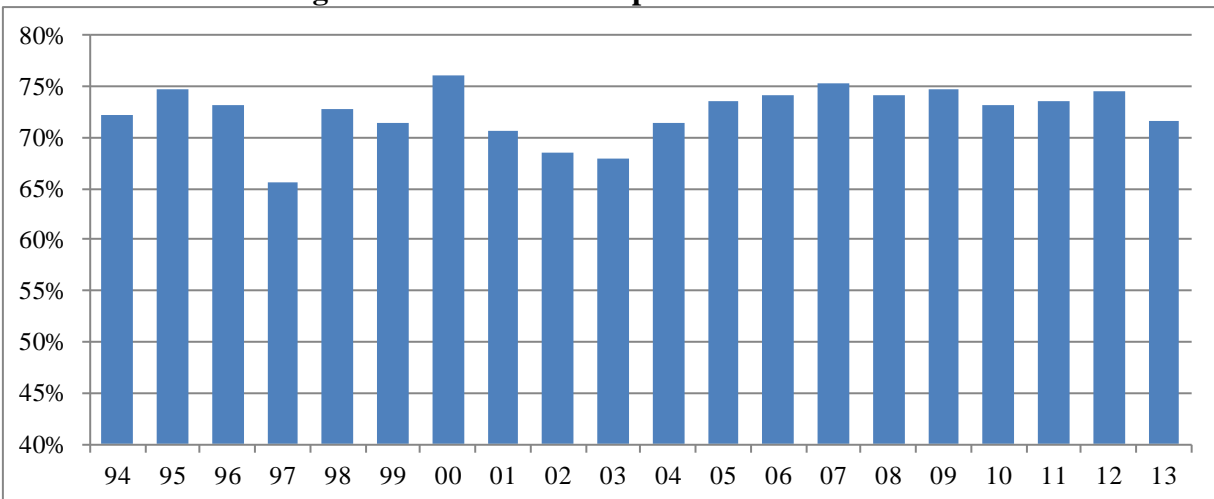
Charts 6 and 7 provide trend data for the proportion of new freshmen who completed remediation in the first year from fall 1994 to fall 2013. Over the period since the last report, from fall 2011 to fall 2013, the percentage of new freshmen who completed math remediation in the first year increased from 63.4 percent to 67.1 percent. During the same period of time, the percentage of new freshmen who completed English remediation in the first year varied between 71.6 percent and 74.5 percent. Appendix B and C contain UW institutional data showing the number and percent of new freshmen who completed remediation in the first year.

For new freshmen requiring math remediation, the fall 2013 cohort had the highest first-year math remediation completion rate (67.1%), followed by the 2012 cohort (65.6%), and the 2009 cohort (65.0%). First-year English remediation completion rate has been above 70 percent since fall 2004. Compared to math remediation, students are more likely to complete English remediation in their first year.

**Chart 6
Math Remediation Completed in the First Year**



**Chart 7
English Remediation Completed in the First Year**



Charts 8 and 9 provide the percentages of new freshmen requiring and completing remediation in the first year by selected student characteristics. The charts combine data from fall 2011 through fall 2013. For year-specific data, see Appendix F and G.

In general, female students were more likely to complete remediation than male students. Sixty-eight (67.9) percent of female students completed math remediation in the first year and 75.2 percent of female students completed English remediation. The proportion was 61.6 percent and 71.3 percent for male students.

Remediation completion is positively related to high school class rank: the higher the student's class rank, the more likely the student is to complete remediation. Of the students who were placed into math remediation, 73.9 percent of those in the top class quartile completed the requirement while 44.2 percent of those in the bottom class quartile completed the requirement. For English remediation, this proportion was 79.3 percent and 58.3 percent respectively for students in the top and bottom class quartile.

Underrepresented minority (URM) students include those who indicated African American, American Indian, Hispanic/Latino(a), or Southeast Asian, alone or in combination with other race/ethnicities. For new freshmen requiring remediation, URM students were less likely to complete math remediation during their first year (56.6%) than non-URM students (68.0%). The gap in English remediation completion rates between URM and non-URM students was much smaller (URM 70.9% and non-URM 74.9%).

Younger students were more likely to complete remediation in their first year than older students. Sixty-seven percent (67.2%) of students age 19 and below completed math remediation while 49.0 percent of students age 20 and over completed math remediation. Similarly, 75.3 percent of students age 19 and below completed English remediation while 49.1 percent of students age 20 and over completed English remediation.

Students who received a Pell Grant were less likely to complete math remediation in the first year (61.6%) than non-Pell Grant recipients (68.1%). The gap in English remediation completion rates between Pell recipients and non-Pell recipients was less pronounced (Pell recipients 72.4% and non-Pell recipients 74.1%).

Chart 8
Math Remediation Completed in the First Year
by Student Characteristic
Fall 2011 to Fall 2013 Combined

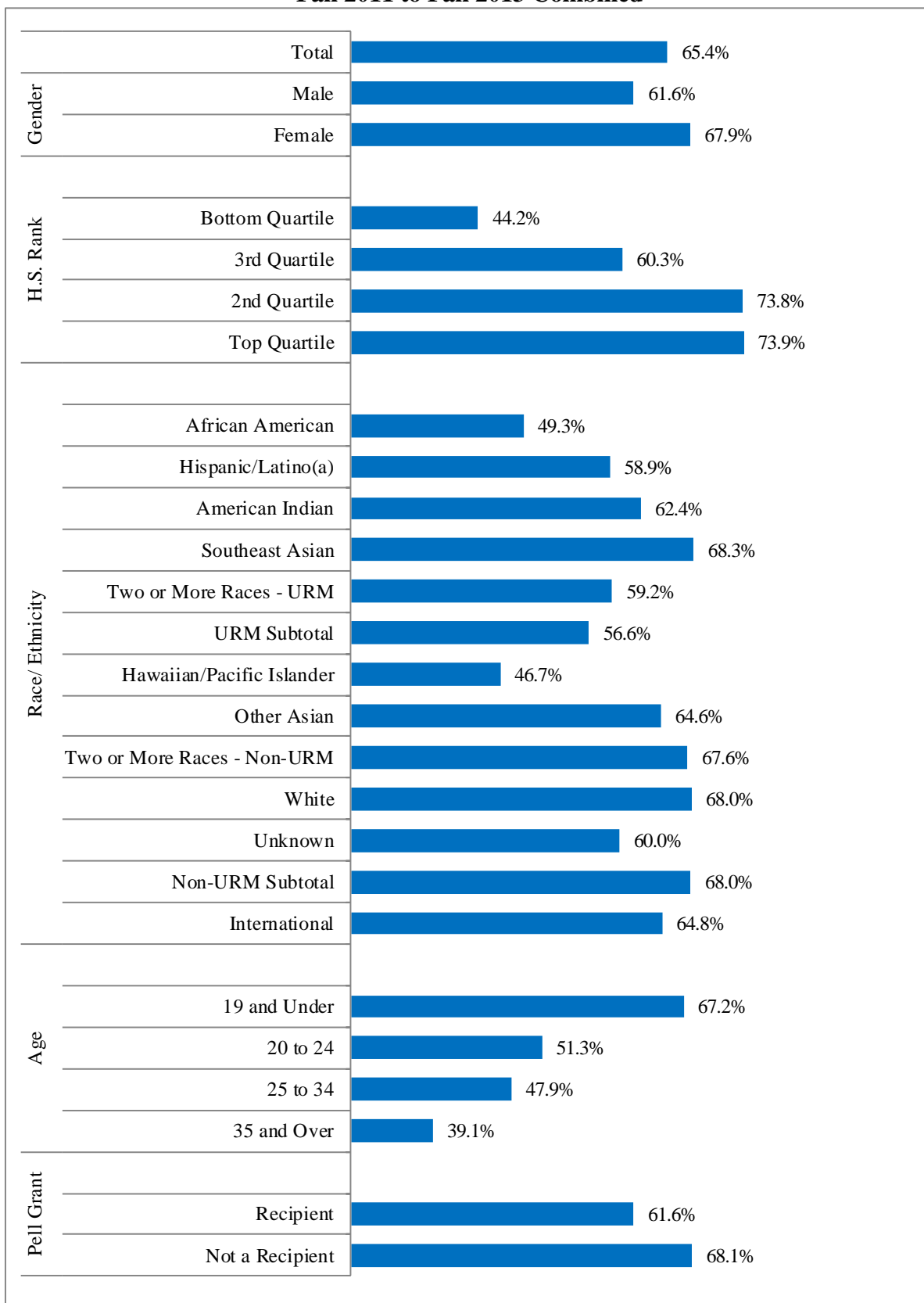
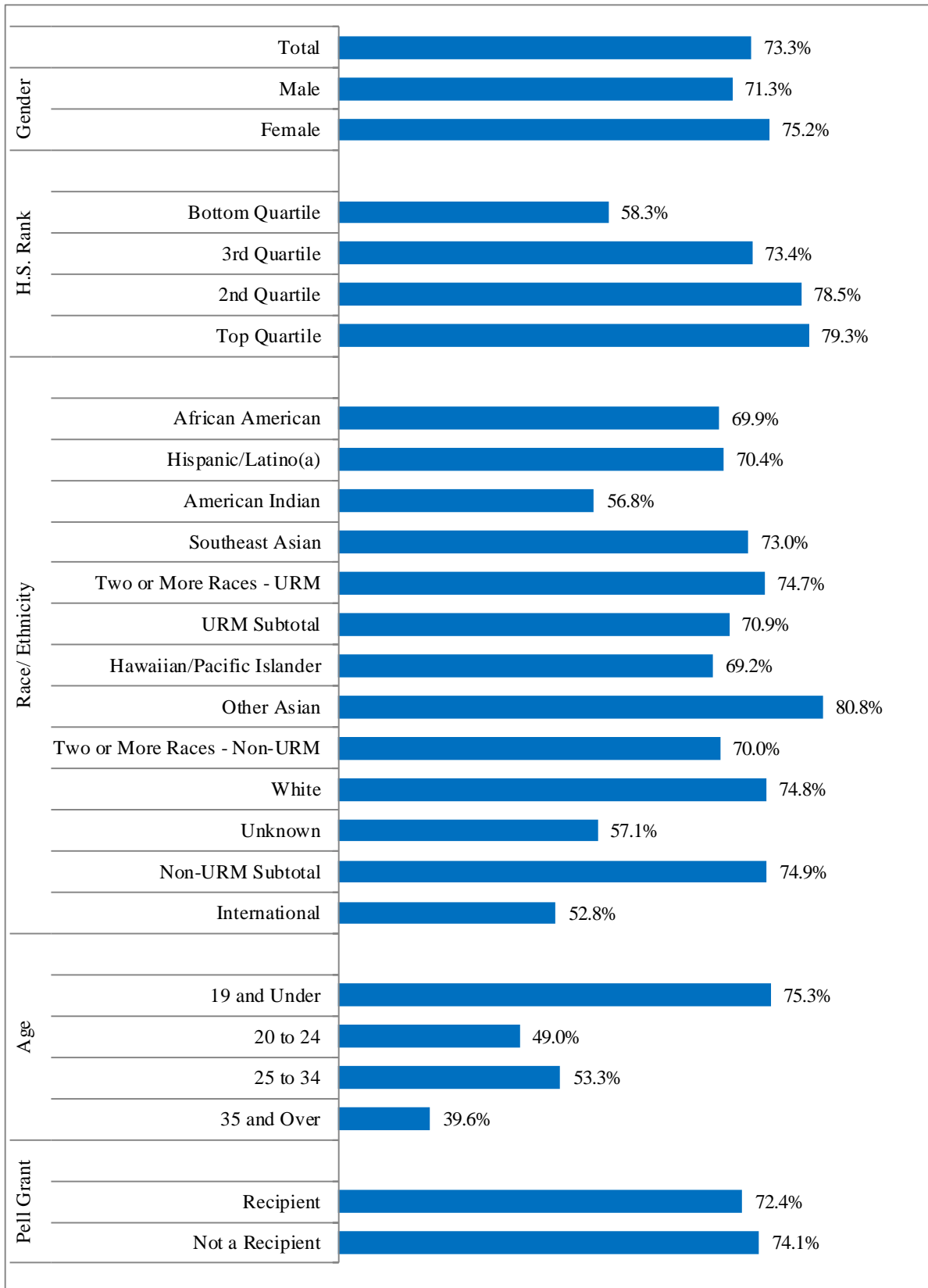


Chart 9
English Remediation Completed in the First Year
by Student Characteristic
Fall 2011 to Fall 2013 Combined



Section IV: Retention Rates by Math and English Remediation

Figures 1 and 2 exhibit second-year retention rates of fall 2013 new freshmen. Comparisons are presented regarding the retention rates of students who required remediation and those who did not. Further comparisons are shown among those who required remediation with respect to the completion of this requirement. Figure 1 presents retention rates in relation to math remediation; Figure 2 presents retention rates in relation to English remediation.

The figures show that students who required remediation were less likely to be retained to the second year than students who did not require remediation. However, for those who required and completed remediation during their first year, retention rates were comparable to the rates for the students who did not require remediation. For students who required and completed math remediation, 78.6 percent were retained to the following year, while only 43.5 percent of those who required but did not complete the requirement were retained. Similarly, for students who required and completed English remediation, 72.5 percent were retained to the following year, compared with only 41.7 percent of students who required but did not complete remediation.

This finding may indicate the positive effect of the remediation programs offered at UW institutions on retention rates. Other factors that may influence these outcomes include differences among students in the number of semesters they are enrolled during the first year and student support services which provide training and other assistance to students who need improved study techniques, learning strategies, and other higher education survival skills.

Key Findings

Figure 1 (Math)

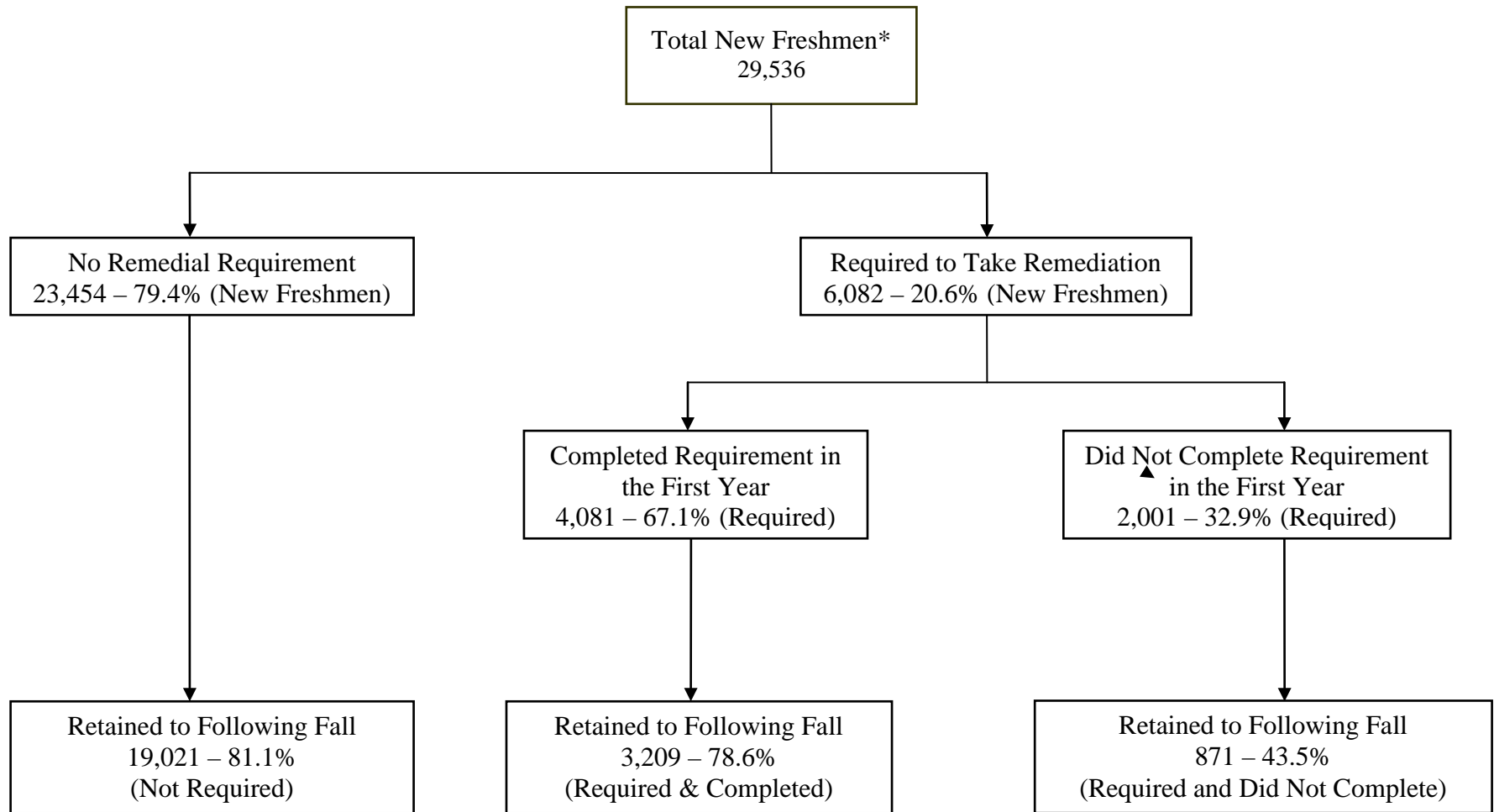
- ◆ Math remediation was required by 20.6 percent of new freshmen in fall 2013.
- ◆ Of those placed into math remediation, 67.1 percent completed the requirement during their first year.
- ◆ Of those who required and completed math remediation during their first year, 78.6 percent were retained to the second year, compared with 43.5 percent for those who did not complete the requirement during their first year.
- ◆ Of the new freshmen who did not require math remediation, 81.1 percent were retained to the second year.

Figure 2 (English)

- ◆ English remediation was required by 9.2 percent of new freshmen in fall 2013.
- ◆ Of those placed into English remediation, 71.6 percent completed the requirement during their first year.
- ◆ Of those who required and completed English remediation during their first year, 72.5 percent were retained to the second year, compared with 41.7 percent for those who did not complete the requirement during their first year.
- ◆ Of the new freshmen who did not require English remediation, 79.7 percent were retained to the second year.

Figure 1

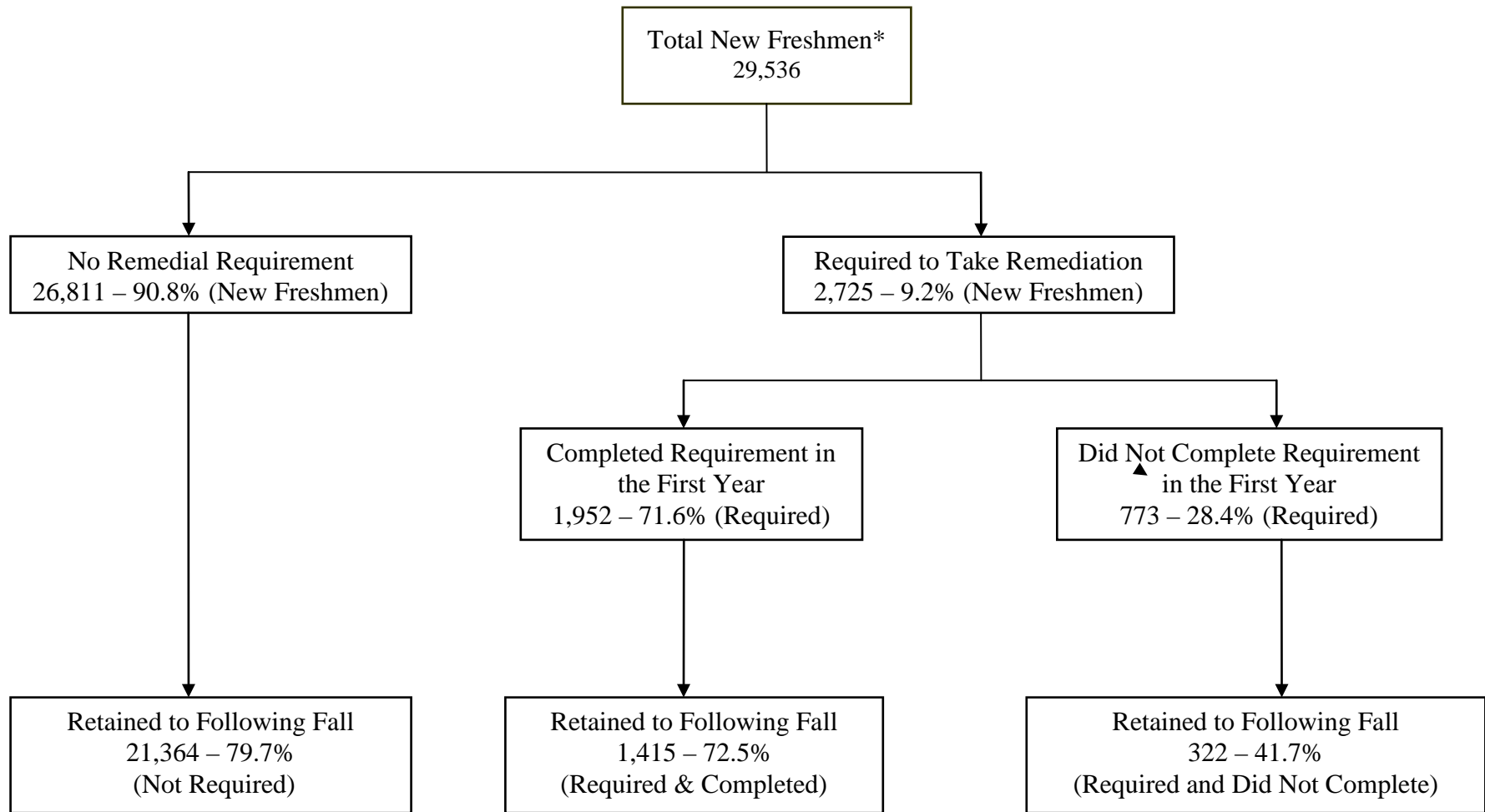
**Second Year Retention Rate at Institution Where Started
for New Freshmen Entering Fall 2013
by Completion of Math Remedial Requirement**



* Full-time and part-time new freshmen were included.

Figure 2

**Second Year Retention Rate at Institution Where Started
for New Freshmen Entering Fall 2013
by Completion of English Remedial Requirement**



* Full-time and part-time new freshmen were included.

Section V: Six-Year Graduation Rates by Math and English Remediation

Figures 3 and 4 exhibit six-year graduation rates of new freshmen entering full-time in fall 2008. These graduation rates are for all students who started at one UW institution and graduated from any institution within the UW System. Comparisons are presented regarding the graduation rates of students who required remediation and those who did not. Further comparisons are shown among those who required remediation with respect to the completion of this requirement. Figure 3 presents six-year graduation rates in relation to math remediation; Figure 4 presents six-year graduation rates in relation to English remediation.

While graduation rates of new freshmen placed into remediation are lower than those of new freshmen who were not required remediation, a significant percentage of students requiring remediation successfully complete their undergraduate education. Since all students placed into remediation are required to complete their remediation long before graduation, it is difficult to isolate the specific impact of remedial programs on the ability to complete a baccalaureate degree within six years. There are a variety of additional intervening factors that may influence a student's likelihood of graduating with a baccalaureate, including finances, family obligations, social issues, employment opportunities, and personal motivation.

Key Findings

Figure 3 (Math)

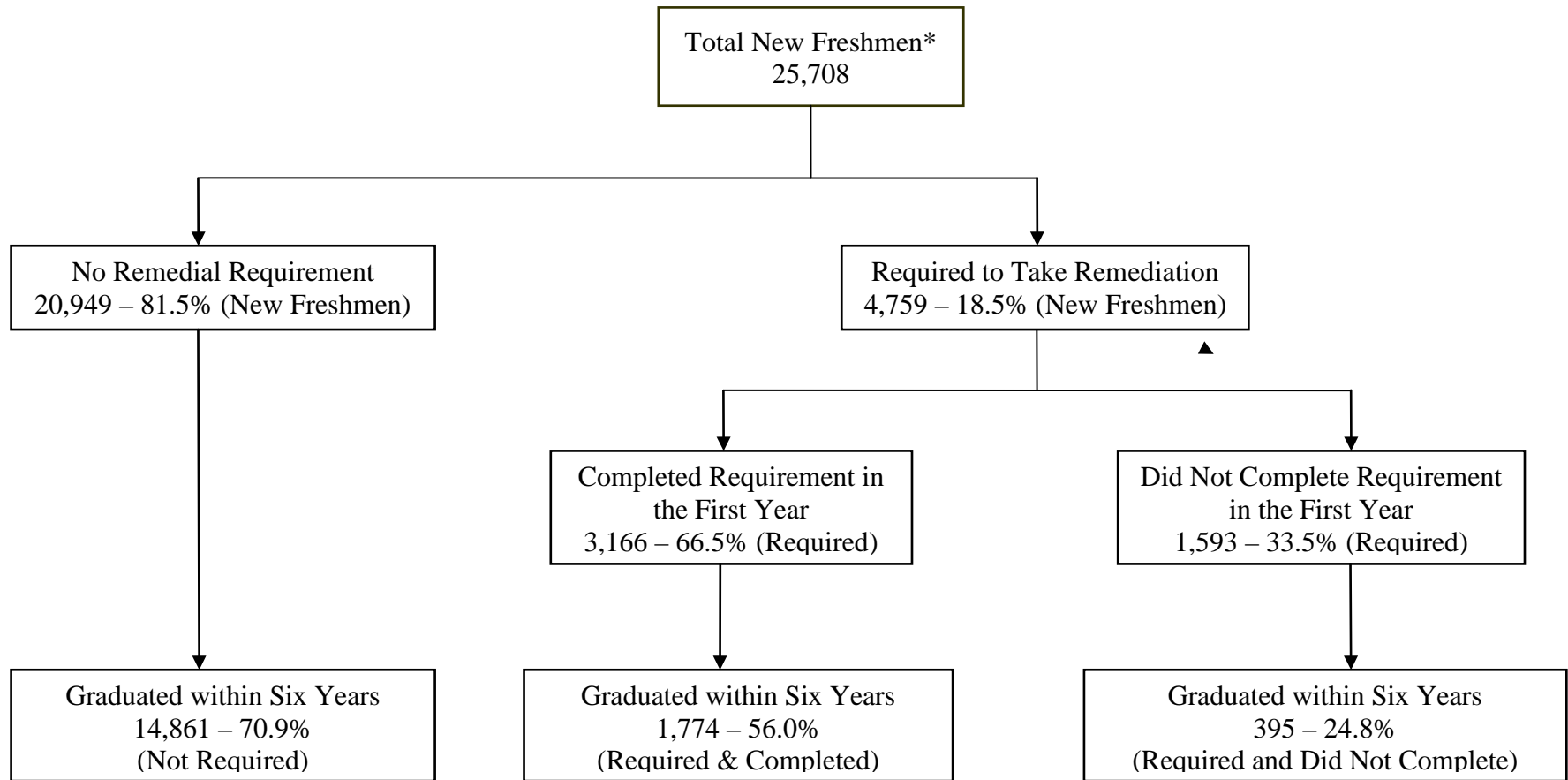
- ◆ Math remediation was required by 18.5 percent of new freshmen entering full-time in fall 2008.
- ◆ Of those placed into math remediation, 66.5 percent completed the requirement during their first year.
- ◆ Of those who required and completed math remediation during their first year, 56.0 percent graduated in six years, compared with 24.8 percent for those who did not complete the requirement during their first year.
- ◆ Of students who did not require math remediation, 70.9 percent graduated in six years.

Figure 4 (English)

- ◆ English remediation was required by 7.8 percent of new freshmen entering full-time in fall 2008.
- ◆ Of those placed into English remediation, 80.8 percent completed the requirement during their first year.
- ◆ Of those who required and completed English remediation during their first year, 43.3 percent graduated in six years, compared with 17.9 percent for those who did not complete the requirement during their first year.
- ◆ Of students who did not require English remediation, 68.6 percent graduated in six years.

Figure 3

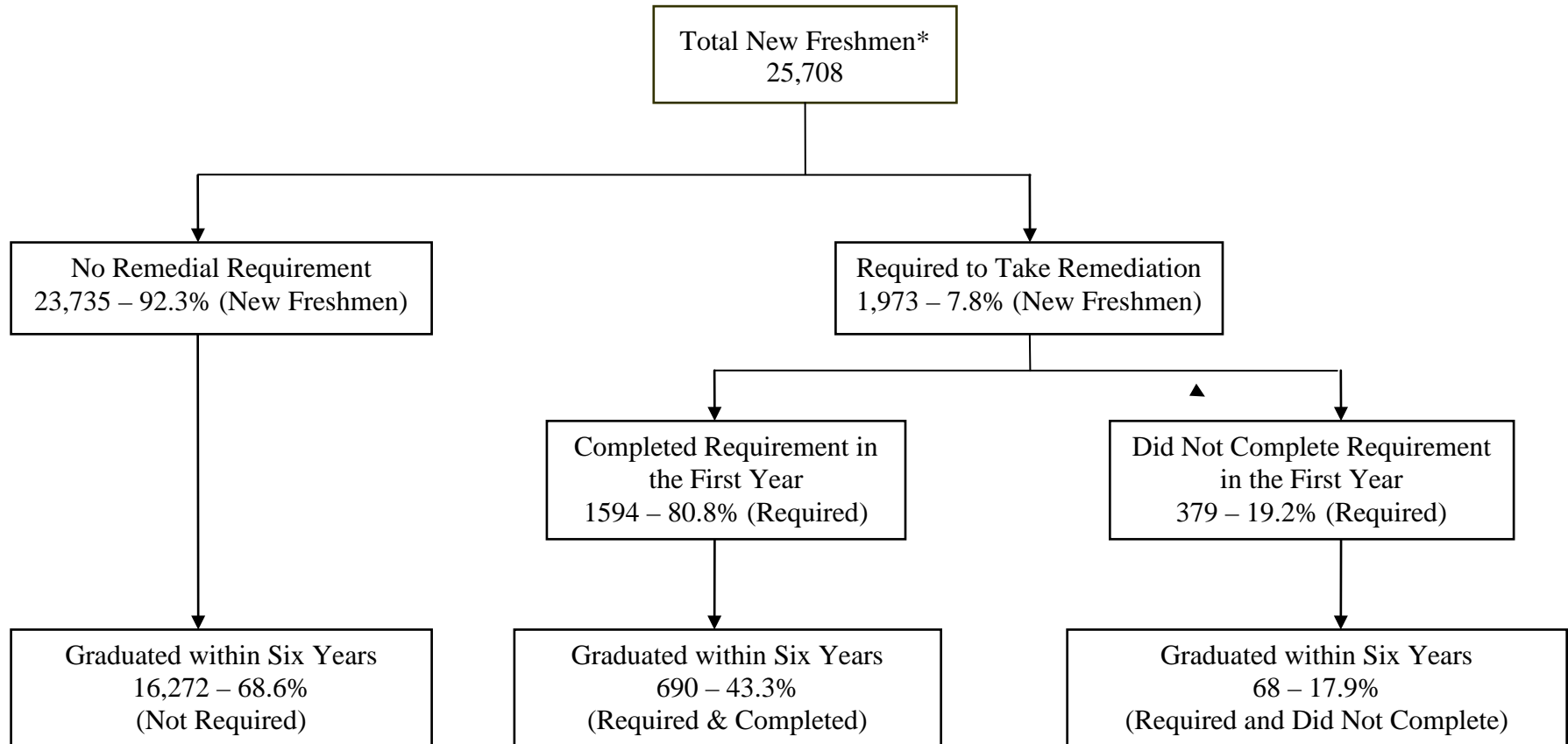
**Six-Year Graduation Rate at Any UW Institution
for Full-Time New Freshmen Entering Fall 2008
by Completion of Math Remedial Requirement**



* Full-time new freshmen at UW 4-year institutions are included.

Figure 4

**Six-Year Graduation Rate at Any UW Institution
for Full-Time New Freshmen Entering Fall 2008
by Completion of English Remedial Requirement**



* Full-time new freshmen at UW 4-year institutions are included.

Section VI: Efforts to Reduce Remediation and Promote Student Success

UW institutions are engaged in a variety of efforts to reduce the need for math and English remediation as well as to ensure that the students who need remediation are retained and graduate.

Examples of efforts to reduce the need for math and English remediation include:

- ◆ State initiatives to standardize learning outcomes and assessment in K-12 education.

The UW System is a participant in the College Readiness Partnership (CRP) along with the Wisconsin Department of Public Instruction (DPI), the Wisconsin Technical College System, and the Wisconsin Association of Independent Colleges and Universities. The CRP was formed to assist states in implementing academic standards through building partnerships with PK-12 and Higher Education. Wisconsin's academic standards reflect what students need to know and the skills they need to develop in order to graduate ready for college and career. The goal of the CRP is to promote effective implementation of academic standards in mathematics and English/Language Arts with a focus on enhancing the intersection of PK-12 and Higher Education.

- ◆ Curriculum alignment with high school.

In August and September 2015, UW-Parkside facilitated meetings between faculty and instructional staff from the math and English departments, and faculty and administrators from the corresponding departments from high schools in the districts UW-Parkside serves. These initial meetings were positive and productive and UW-Parkside is committed to working together to ensure incoming college students are better prepared in these two areas.

- ◆ Intervention programs with precollege populations.

UW-Milwaukee's Panther Academic Support Services (PASS) conducts a summer bridge program called Panther Math Prep for incoming UWM first-year students who did not test into College Algebra. More than 200 students have participated in one of three options which take place for 4-6 weeks from July to early August. Math instructors and in-person and online tutors were available to students in all programs. The math coordinator also allowed additional students who did very well in the program but did not test higher on the second placement test to move up in the 90 math sequence. The program gave students an opportunity to review and practice basic math, giving them a head start on their fall math course.

Students who apply to or are accepted to UW-Oshkosh are strongly encouraged to take the Math Placement exam early. By taking the placement exam much earlier in the application process, students receive a clearer indication of areas of math where they are in need of remediation. Students are encouraged to take advantage of several options to achieve proficiency before they come to campus including taking an additional high school math course or participating in the Massive Open Online Course (MOOC) that is designed for developmental math purposes. Students are retested before the first semester on campus to obtain a more recent placement measure.

UW-Stout received a System Developmental Education Research and Development grant to set up summer English Boot Camps for regional high school students. The goal is to reduce the number of students who need remedial English, when they start their academic program at UW-Stout in the fall of 2016. The camps are co-facilitated by a UW-Stout faculty member and a local high school

faculty member, and the students are evaluated for placement in a non-remedial English course at the completion of the boot camp.

- ◆ New remedial placement approach.

Effective fall 2014, UW-Parkside eliminated all remedial reading and writing courses. The lowest English placement is now the first credit-bearing composition course, ENGL 100. To provide additional support to the lower testing students in ENGL 100, class sizes were reduced from 26 to 22, and a professional development workshop was held for faculty and instructional staff. The workshop was led by English department faculty from UW Colleges and funded by the Gates Foundation via the UW System Administration.

At UW Colleges, the Multiple Measures Placement project, which is supported in part by the Gates Foundation, is a new placement approach that uses the student's Wisconsin Math Placement score and a variety of measures (i.e., high school GPA, ACT scores, reading sub scores, and the student's responses to a math survey) for determining initial math placement. Students are then afforded the opportunity to practice their math skills using interactive placement software called ALEKS and then have an additional opportunity to retake their placement exam in order to advance or "move up" in their initial math placement.

The English department at UW Colleges uses several key strategies for accelerating students to credit-bearing composition and reducing the need for non-degree coursework. First, approximately one-third of students in credit-bearing English courses would be placed into developmental writing at institutions that use the ACT as the primary placement measure; lower Wisconsin English Placement Test scores provide the writing program with a clear mechanism for accelerating some students to credit-bearing composition classes. Second, additional students are accelerated to English 101 through the placement process. Trained campus placement teams assess a writing sample, students' grades, high school curriculum, and a self-assessment questionnaire in addition to test scores to identify students who can be successfully accelerated to credit-bearing composition courses with a support course.

Examples of efforts to ensure the success of students who need remediation include:

- ◆ Use of new delivery models for remedial courses.

UW-Green Bay continues to provide an alternative delivery model for remedial mathematics. Instead of the standard 14 weeks, the course is delivered in an intensive seven-week module in which students meet five days a week for either 55 or 80 minutes per day. Following this seven-week course, students are able to take a seven-week basic mathematics course that is a common prerequisite for other university courses in math and/or chemistry. By putting both these courses in a single semester, students are on track with their non-remedial peers.

UW-Oshkosh requires students who are placed in English 100, a developmental English course, to concurrently complete required additional tutoring sessions in the University Writing Center. These tutoring sessions are scheduled with professional writing coaches in the Writing Center that are scheduled immediately after the face-to-face course in the classroom. Tutoring sessions are integrated with classroom instruction to provide immediate application of course content, and students receive feedback to advance their writing skills.

In 2014, the Math and Computer Science department at UW-Superior established a developmental math committee to study alternative delivery of the developmental math curriculum. Some alternatives are already in their second year of delivery, and the data is analyzed at the end of each semester by the committee. For Math 102, a pilot program was launched to test a flipped classroom model with a responsive computer program. This pilot was coupled with a Scholarship of Teaching and Learning (SOTL) project. As a result, the current Math 102 model combines the responsive computer program with a lecture-based classroom that heavily integrates experiential learning and student involvement in the classroom.

Over the last five years, UW Colleges has been focused on reforming the way developmental mathematics is offered. New delivery models have been developed that enable UW Colleges to provide developmental math students with an opportunity to accelerate through their required developmental course work into credit-bearing course work in one semester. Two accelerated delivery models that have been developed and promoted, the Vertical Accelerated Model and the Emporium Model, use a flipped classroom approach (i.e., an approach whereby students are actively engaged in the classroom doing their math work as opposed to a traditional lecture approach whereby students listen to lectures and do their work outside class) that compresses the time frame that students spend in developmental math course work.

- ◆ Curriculum changes.

UW-Eau Claire developed a new credit-bearing developmental writing course, WRIT 114 Intensive Blugold Seminar in Critical Reading and Writing. The course pairs a rigorous college composition curriculum with a smaller class size (15) and expert instruction and offers additional in- and out-of-class support from tutors in the Center for Writing Excellence and librarians in McIntyre Library. Instructors of WRIT 114 are also offered additional professional development opportunities.

Beginning in fall 2012, remedial math classes at UW-Parkside were formally divided into content modules, and the requirement for successful completion was changed from a minimum grade over the entire course to demonstrated proficiency in each content module. Student support was added in the form of an extra class day each week, and follow-up review sessions and opportunities for retesting of failed content modules.

In 2015, UW-Whitewater implemented its Moving Up Program with support from a UW System Developmental Education grant. The Moving Up Program allows select students placed into developmental courses to enroll in credit-bearing math and English courses with an accompanying one unit developmental workshop. The developmental workshops are taught by the same instructors as the credit-bearing courses, and all aspects of the course are integrated. Departments and participating faculty were provided professional development support to plan and implement these workshop-enhanced sections. Students participating in the program also receive additional support in the form of supplemental instruction, writing mentors, and in-class student aides.

- ◆ Providing additional support for students in remedial math and English courses.

In collaboration with the University Advising Resource Center (UARC), the Office of Admissions, and the Office of the Registrar, entering students at UW-Oshkosh are required to complete any remedial coursework within their first 30 credits. Student enrollments are systematically monitored to ensure that students are taking appropriate coursework based on their placement scores. Students will be required to complete all of the above developmental course(s) prior to reaching 30 earned

credits. Registration holds may be placed on a student's record requiring students to meet with their UARC academic advisor. A drop consent will also be placed on the courses requiring permission to drop. In addition, an Early Alert system provides faculty members an opportunity to monitor student progress in these early courses.

UW-River Falls has developed a pathways program to assist domestic students who, in particular, come from homes where English is not the first or common language spoken. The program is designed to support students' transition to the university and improve reading, comprehension, and writing skills.

The Math Teaching and Learning Center (TLC) program was initiated in 2004 at UW-Stout in response to high failure and withdrawal rates in gateway algebra courses. The Math TLC program provides tutoring from a closely supervised and specially trained staff of student peer tutors. In addition to the dedicated open tutor lab, the Math TLC program provides coordination of content, instruction, course materials, technology, assignments and assessment for the two introductory-level algebra courses Math 010 and 110.

In fall 2010, UW-Whitewater implemented the Pathway to Success Program. Approximately 100 students each fall semester, who enter with an ACT mathematics test sub-score of 18 or less, an English test sub-score of 17 or less, and a high school cumulative grade point average of 2.75 or less, are enrolled in the program. The students are limited to 15 credits per semester. Besides enrollment in remedial Math and/or English, the students are required to be enrolled in DEVLPE050 "Study/Academic Survival Skills" to promote effective learning strategies and study skills. The Pathway coursework incorporates supplemental instruction math study groups, in-class writing tutors, and cyber tutoring. Moreover, Pathway students utilize, on average, 12 hours per week of tutorial support.

Campus Tutorial Services at UW-Whitewater has expanded its support for students in remedial math and English courses. In addition to students utilizing the walk-in Math and Writing Centers, new levels of support were offered, upon request: In-Class Tutors, Supplemental Instruction (including Peer Writing Mentors and Math Major Mentors), and Tutor-Led Study Groups. More than 40 sections of remedial courses receive Supplemental Instruction or in-class tutorial support each year in addition to the typical walk-in tutorial support that is provided. Early analysis of data shows that students who utilized these additional services averaged a quarter to half letter grade higher than their peers who did not.

- ◆ Summer bridge programs to give students a head-start on developing college success skills and completing remedial requirements.

For freshmen entering UW-Eau Claire in fall 2014 who placed into remedial mathematics, the Department of Mathematics piloted a summer bridge program titled "Springboard." When such students came for orientation in June, they were given the opportunity to participate in this program with the anticipation that they would be able to avoid the need to take a remedial mathematics course in the fall. Building on the Summer/Fall 2014 pilot, a new project was funded which involved contacting first-year students who took the placement exam before orientation and who placed into remedial mathematics. The project also involved intentional planning and coordination for seamless enrollment in a subsequent fall course, and it also included robust mentoring and academic support for students in their subsequent fall courses.

UW-La Crosse's FastTrack program is a summer program designed to give incoming first-year students the opportunity to move forward from remedial math placement into a credit-bearing course. Originally funded through a UW System Growth Agenda grant, the FastTrack program utilized the award-winning UW System College Readiness Math MOOC in conjunction with a face-to-face component. Participants move onto campus a week prior to classes of the fall semester. The students participate in math workshops and community building activities. At the end of the week, the students retake the UW System Mathematics Placement Test.

UW-Milwaukee's Student Support Services (SSS) has continued to conduct a summer bridge program for incoming SSS freshmen. This experience continues to serve two general purposes: to increase students' academic preparation for fall semester courses, focusing on Math, Writing, and Reading skill development; and to ease students' psychological transition to UWM by familiarizing them with the campus, its resources, staff, instructor expectations, and facilitating interaction with other incoming freshmen. Several significant changes have been made to improve this program in recent years.

The Titan Advantage Program (TAP) at UW-Oshkosh provides students identified as high-risk with the advantage of becoming oriented to campus life and resources while getting a head start on their academic careers. TAP students not only earn general education credit, but they are also provided with foundations in mathematics, writing, and reading study skills. Enrollment in this summer-before-college program has expanded to 50 students. Initial follow-up studies demonstrate that TAP students continue to be successful as they continue their programs at UW-Oshkosh.

Appendix A

University of Wisconsin System Regent Policy Document

(Source: <https://www.wisconsin.edu/regents/policies/remedial-education-policy/>)

SECTION IV, 4-8 REMEDIAL EDUCATION POLICY

1. New freshman who are admitted to Institutions of the University of Wisconsin System in accord with criteria approved by the Board of Regents and whose scores on English or mathematics placement or proficiency tests indicate a low probability for success in college level courses in either or both of those subjects shall be required to complete successfully the necessary remedial courses prior to completion of 30 credits. Institutions may grant exceptions to individual students; however, they must clearly document the reasons for such exceptions.
2. Remedial courses in English and mathematics shall not generate credit toward a degree from Institutions in the University of Wisconsin System.
3. Remedial courses in English and mathematics offered by Institutions of the University of Wisconsin System may be taught by faculty and staff they employ, through the University of Wisconsin-Extension, or through contractual arrangements with local VTAE Units. An Institution's remedial courses should be available for students on its campus. The faculty of the University of Wisconsin System shall control the content, standards, and methods of instruction in its remedial courses.
4. The appropriate credit load for all students enrolled in remedial courses will be determined by the Institution. The Institution will be expected to advise students carefully about the appropriate number of credits based on students' high school performance and test scores. Beginning in fall of 1990 each Institution will provide an annual report to System Administration on the number of new freshmen identified as needing remediation in English and/or mathematics and the number who successfully completed remedial courses in English and/or mathematics. The president will use this information to compile an annual report for the Board of Regents. *
5. No later than Fall 1991, all remedial courses in the University of Wisconsin System shall be offered on a fee recovery basis.
6. By October 1989, the University of Wisconsin System shall develop a detailed statement of the minimum college-level skills and competencies students are expected to have in mathematics and English upon entrance to the University. This statement shall be widely circulated and periodically updated. It should form the basis for college-preparatory courses in mathematics and English offered by secondary schools and for remedial courses offered by the University.
7. An initial screening for these competencies shall include admitted freshmen's scores on the ACT and any other additional performance criteria that each University of Wisconsin System Institution may choose. Students who score above the University of Wisconsin System established level on the ACT mathematics and English subtests are expected to have a high probability of success in college-level courses and may be exempted from further testing. For students who score below the University of Wisconsin System-established level, each Institution shall determine the specific instruments and performance criteria used for placement in college-level or remedial courses. Information about the University of Wisconsin System-established level on ACT mathematics and English subtests and each Institution's instruments and performance criteria shall be made available to the secondary schools and to potential University of Wisconsin students.
8. The University of Wisconsin System will cooperate with the Department of Public Instruction in developing a plan for assessing English and mathematics skills of high school students throughout the state. Examination results shall be made available to students, their parents, and their schools. Students whose scores suggest they are unlikely to place into college-level English and mathematics courses upon entering college shall be encouraged to take courses in high school that are designed to improve their English and mathematics competencies and lessen the possibility of their placing into remedial courses.
*Reporting period changed to once every three years by Res. 7382, 2/7/97.
History: Res. 5088 adopted 11/11/88; amended by Res. 5957 and 5958, 11/91.

Appendix B

Math Remediation Required and Completed in the First Year by UW Institution Fall 2011 to Fall 2013

Institution	Fall 2011				Fall 2012				Fall 2013			
	# Req Rem	% of Total New Freshmen	# Compl	% Compl of Rem Req	# Req Rem	% of Total New Freshmen	# Compl	% Compl of Rem Req	# Req Rem	% of Total New Freshmen	# Compl	% Compl of Rem Req
UW-Madison	14	0.2%	7	50.0%	12	0.2%	7	58.3%	10	0.2%	0	0.0%
UW-Milwaukee	1,752	46.8%	1,102	62.9%	1,548	44.3%	1,048	67.7%	1,594	48.3%	1,089	68.3%
UW-Eau Claire	211	10.8%	195	92.4%	252	12.2%	234	92.9%	289	14.3%	268	92.7%
UW-Green Bay	119	13.1%	100	84.0%	125	13.6%	106	84.8%	139	17.2%	122	87.8%
UW-La Crosse	53	2.7%	40	75.5%	48	2.5%	36	75.0%	39	1.9%	28	71.8%
UW-Oshkosh	850	45.4%	576	67.8%	836	45.4%	565	67.6%	765	43.8%	559	73.1%
UW-Parkside	402	52.5%	213	53.0%	335	47.1%	198	59.1%	344	45.1%	171	49.7%
UW-Platteville	578	33.6%	362	62.6%	637	36.3%	434	68.1%	634	38.5%	441	69.6%
UW-River Falls	69	5.6%	46	66.7%	53	4.7%	52	98.1%	65	6.1%	52	80.0%
UW-Stevens Point	106	6.6%	88	83.0%	102	6.2%	89	87.3%	151	9.2%	124	82.1%
UW-Stout	62	4.2%	54	87.1%	141	9.4%	52	36.9%	56	3.6%	33	58.9%
UW-Superior	112	31.8%	85	75.9%	156	42.6%	104	66.7%	124	38.2%	81	65.3%
UW-Whitewater	429	21.4%	381	88.8%	493	22.7%	427	86.6%	464	22.0%	415	89.4%
UW Colleges	1,506	34.0%	724	48.1%	1,483	35.0%	729	49.2%	1,408	33.6%	698	49.6%
Total	6,263	21.0%	3,973	63.4%	6,221	20.7%	4,081	65.6%	6,082	20.6%	4,081	67.1%

Note: UW institutions use incoming students' scores on the UW System Math Placement Test, ACT/SAT Math subscores, or a combination of these scores to determine if math remediation is needed. Cutoff scores for math remediation differ across the UW institutions and may change over years.

Appendix C

English Remediation Required and Completed in the First Year by UW Institution Fall 2011 to Fall 2013

Institution	Fall 2011				Fall 2012				Fall 2013			
	# Req Rem	% of Total New Freshmen	# Compl	% Compl of Rem Req	# Req Rem	% of Total New Freshmen	# Compl	% Compl of Rem Req	# Req Rem	% of Total New Freshmen	# Compl	% Compl of Rem Req
UW-Madison	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
UW-Milwaukee	717	19.1%	617	86.1%	852	24.4%	725	85.1%	793	24.0%	678	85.5%
UW-Eau Claire	24	1.2%	21	87.5%	30	1.4%	26	86.7%	N/A	N/A	N/A	N/A
UW-Green Bay	47	5.2%	45	95.7%	56	6.1%	46	82.1%	64	7.9%	49	76.6%
UW-La Crosse	19	1.0%	7	36.8%	31	1.6%	24	77.4%	35	1.7%	25	71.4%
UW-Oshkosh	45	2.4%	29	64.4%	124	6.7%	71	57.3%	73	4.2%	64	87.7%
UW-Parkside	255	33.3%	163	63.9%	207	29.1%	165	79.7%	217	28.5%	166	76.5%
UW-Platteville	119	6.9%	97	81.5%	152	8.7%	132	86.8%	148	9.0%	105	70.9%
UW-River Falls	122	9.9%	98	80.3%	146	13.0%	127	87.0%	126	11.8%	66	52.4%
UW-Stevens Point	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
UW-Stout	132	8.9%	115	87.1%	181	12.1%	149	82.3%	211	13.4%	140	66.4%
UW-Superior	44	12.5%	38	86.4%	102	27.9%	78	76.5%	59	18.2%	42	71.2%
UW-Whitewater	153	7.6%	147	96.1%	178	8.2%	172	96.6%	153	7.3%	148	96.7%
UW Colleges	670	15.1%	351	52.4%	906	21.4%	494	54.5%	846	20.2%	469	55.4%
Total	2,347	7.9%	1,728	73.6%	2,965	9.9%	2,209	74.5%	2,725	9.2%	1,952	71.6%

Note: In the most recent year, UW-Madison, UW-Eau Claire, and UW-Stevens Point do not identify students needing English remediation and do not offer courses that are specifically intended for remedial English.

UW institutions use incoming students' scores on the UW System English Placement Test, ACT/SAT English subscores, or a combination of these scores to determine if English remediation is needed. Cutoff scores for English remediation differ across the UW institutions and may change over years.

Appendix D

New Freshmen Placed into Math Remediation by Student Characteristic Fall 2011 to Fall 2013

Category	Characteristic	Fall 2011			Fall 2012			Fall 2013		
		All New Fresh	Placed into Remed	%	All New Fresh	Placed into Remed	%	All New Fresh	Placed into Remed	%
Gender	Male	14,025	2,560	18.3%	13,991	2,502	17.9%	13,819	2,454	17.8%
	Female	15,863	3,703	23.3%	16,003	3,719	23.2%	15,717	3,628	23.1%
H.S. Rank**	Bottom Quartile	1,044	531	50.9%	910	475	52.2%	909	471	51.8%
	3rd Quartile	3,814	1,561	40.9%	3,713	1,563	42.1%	3,606	1,416	39.3%
	2nd Quartile	7,311	1,883	25.8%	6,778	1,866	27.5%	6,393	1,604	25.1%
	Top Quartile	9,895	835	8.4%	9,490	712	7.5%	8,531	597	7.0%
Race/ Ethnicity	African American	967	599	61.9%	866	516	59.6%	900	487	54.1%
	Hispanic/Latino(a)	1,324	453	34.2%	1,391	464	33.4%	1,483	473	31.9%
	American Indian	111	34	30.6%	107	35	32.7%	104	32	30.8%
	Southeast Asian	695	205	29.5%	667	183	27.4%	664	167	25.2%
	Two or More Races - URM	524	158	30.2%	530	186	35.1%	592	205	34.6%
	<i>URM Subtotal</i>	3,621	1,449	40.0%	3,561	1,384	38.9%	3,743	1,364	36.4%
	Hawaiian/Pacific Is.	22	*	*	30	8	26.7%	32	*	*
	Other Asian	479	61	12.7%	458	60	13.1%	500	74	14.8%
	Two or More Races - Non-URM	218	44	20.2%	230	35	15.2%	233	26	11.2%
	White	24,983	4,634	18.5%	24,789	4,664	18.8%	24,277	4,548	18.7%
	Unknown	48	*	*	30	*	*	33	*	*
	<i>Non-URM Subtotal</i>	25,750	4,748	19.9%	25,537	4,772	19.7%	25,075	4,656	19.1%
International	517	66	12.8%	896	65	7.3%	718	62	8.6%	
Age	19 and Under	28,390	5,596	19.7%	28,556	5,596	19.6%	28,344	5,537	19.5%
	20 to 24	906	386	42.6%	903	373	41.3%	803	346	43.1%
	25 to 34	401	208	51.9%	357	181	50.7%	270	141	52.2%
	35 and Over	191	73	38.2%	178	71	39.9%	119	58	48.7%
Pell Grant	Recipient	8,742	2,688	30.7%	8,597	2,626	30.5%	8,315	2,506	30.1%
	Not a Recipient	21,146	3,575	16.9%	21,397	3,596	16.8%	21,221	3,576	16.9%
Total	All Char.	29,888	6,263	21.0%	29,994	6,221	20.7%	29,536	6,082	20.6%

* To protect student privacy, data are not shown when there are five or fewer students placed into remediation.

** Subtotals do not necessarily sum to total due to missing data.

Note: Two or More Races-URM includes students identifying as two or more races, one of which is an underrepresented minority group. Two or More Races-Non-URM includes students identifying as two or more races, none of which is an underrepresented minority group.

Appendix E

New Freshmen Placed into English Remediation by Student Characteristic Fall 2011 to Fall 2013

Category	Characteristic	Fall 2011			Fall 2012			Fall 2013		
		All New Fresh	Placed into Remed	%	All New Fresh	Placed into Remed	%	All New Fresh	Placed into Remed	%
Gender	Male	14,025	1,235	8.8%	13,991	1,404	10.0%	13,819	1,255	9.1%
	Female	15,863	1,112	7.0%	16,003	1,561	9.8%	15,717	1,470	9.4%
H.S. Rank**	Bottom Quartile	1,044	239	22.9%	910	261	28.7%	909	286	31.5%
	3rd Quartile	3,814	657	17.2%	3,713	855	23.0%	3,606	744	20.6%
	2nd Quartile	7,311	692	9.5%	6,778	878	13.0%	6,393	662	10.4%
	Top Quartile	9,895	275	2.8%	9,490	314	3.3%	8,531	299	3.5%
Race/ Ethnicity	African American	967	340	35.2%	866	319	36.8%	900	327	36.3%
	Hispanic/Latino(a)	1,324	218	16.5%	1,391	276	19.8%	1,483	252	17.0%
	American Indian	111	13	11.7%	107	18	16.8%	104	13	12.5%
	Southeast Asian	695	184	26.5%	667	245	36.7%	664	185	27.9%
	Two or More Races - URM	524	55	10.5%	530	82	15.5%	592	92	15.5%
	<i>URM Subtotal</i>	3,621	810	22.4%	3,561	940	26.4%	3,743	869	23.2%
	Hawaiian/Pacific Is.	22	*	*	30	*	*	32	*	*
	Other Asian	479	55	11.5%	458	50	10.9%	500	51	10.2%
	Two or More Races - Non-URM	218	14	6.4%	230	12	5.2%	233	14	6.0%
	White	24,983	1,420	5.7%	24,789	1,904	7.7%	24,277	1,746	7.2%
	Unknown	48	*	*	30	8	26.7%	33	*	*
	<i>Non-URM Subtotal</i>	25,750	1,498	6.5%	25,537	1,977	6.7%	25,075	1,818	5.9%
International	517	39	7.5%	896	48	5.4%	718	38	5.3%	
Age	19 and Under	28,390	2,133	7.5%	28,556	2,753	9.6%	28,344	2,522	8.9%
	20 to 24	906	142	15.7%	903	148	16.4%	803	149	18.6%
	25 to 34	401	49	12.2%	357	48	13.4%	270	40	14.8%
	35 and Over	191	23	12.0%	178	16	9.0%	119	14	11.8%
Pell Grant	Recipient	8,742	1,168	13.4%	8,597	1,408	16.4%	8,315	1,310	15.8%
	Not a Recipient	21,146	1,179	5.6%	21,397	1,557	7.3%	21,221	1,415	6.7%
Total	All Char.	29,888	2,347	7.9%	29,994	2,965	9.9%	29,536	2,725	9.2%

* To protect student privacy, data are not shown when there are five or fewer students placed into remediation.

** Subtotals do not necessarily sum to total due to missing data.

Note: Two or More Races-URM includes students identifying as two or more races, one of which is an underrepresented minority group. Two or More Races-Non-URM includes students identifying as two or more races, none of which is an underrepresented minority group.

Appendix F

Math Remediation Completed in the First Year by Student Characteristic Fall 2011 to Fall 2013

Category	Characteristic	Fall 2011			Fall 2012			Fall 2013		
		Placed into Remed	Compl in the First Year	%	Placed into Remed	Compl in the First Year	%	Placed into Remed	Compl in the First Year	%
Gender	Male	2,560	1,513	59.1%	2,502	1,555	62.2%	2,454	1,562	63.7%
	Female	3,703	2,460	66.4%	3,719	2,526	67.9%	3,628	2,519	69.4%
H.S. Rank**	Bottom Quartile	531	215	40.5%	475	209	44.0%	471	229	48.6%
	3rd Quartile	1,561	887	56.8%	1,563	969	62.0%	1,416	882	62.3%
	2nd Quartile	1,883	1,377	73.1%	1,866	1,363	73.0%	1,604	1,209	75.4%
	Top Quartile	835	608	72.8%	712	521	73.2%	597	455	76.2%
Race/ Ethnicity	African American	599	273	45.6%	516	259	50.2%	487	257	52.8%
	Hispanic/Latino(a)	453	256	56.5%	464	275	59.3%	473	288	60.9%
	American Indian	34	21	61.8%	35	18	51.4%	32	24	75.0%
	Southeast Asian	205	143	69.8%	183	120	65.6%	167	116	69.5%
	Two or More Races - URM	158	97	61.4%	186	104	55.9%	205	124	60.5%
	<i>URM Subtotal</i>	1,449	790	54.5%	1,384	776	56.1%	1,364	809	59.3%
	Hawaiian/Pacific Is.	*	*	*	8	*	*	*	*	*
	Other Asian	61	35	57.4%	60	44	73.3%	74	47	63.5%
	Two or More Races - Non-URM	44	24	54.5%	35	24	68.6%	26	23	88.5%
	White	4,634	3,085	66.6%	4,664	3,180	68.2%	4,548	3,157	69.4%
	Unknown	*	*	*	*	*	*	*	*	*
	<i>Non-URM Subtotal</i>	4,748	3,148	62.6%	4,772	3,257	67.0%	4,656	3,230	65.2%
International	66	35	53.0%	65	48	73.8%	62	42	67.7%	
Age	19 and Under	5,596	3,655	65.3%	5,596	3,787	67.7%	5,537	3,793	68.5%
	20 to 24	386	183	47.4%	373	188	50.4%	346	196	56.6%
	25 to 34	208	110	52.9%	181	73	40.3%	141	71	50.4%
	35 and Over	73	25	34.2%	71	33	46.5%	58	21	36.2%
Pell Grant	Recipient	2,688	1,610	59.9%	2,626	1,592	60.6%	2,506	1,614	64.4%
	Not a Recipient	3,575	2,363	66.1%	3,596	2,489	69.2%	3,576	2,467	69.0%
Total	All Char.	6,263	3,973	63.4%	6,221	4,081	65.6%	6,082	4,081	67.1%

* To protect student privacy, data are not shown when there are five or fewer students placed into remediation or completing remediation.

** Subtotals do not necessarily sum to total due to missing data.

Note: Two or More Races-URM includes students identifying as two or more races, one of which is an underrepresented minority group. Two or More Races-Non-URM includes students identifying as two or more races, none of which is an underrepresented minority group.

Appendix G

English Remediation Completed in the First Year by Student Characteristic Fall 2011 to Fall 2013

Category	Characteristic	Fall 2011			Fall 2012			Fall 2013		
		Placed into Remed	Compl in the First Year	%	Placed into Remed	Compl in the First Year	%	Placed into Remed	Compl in the First Year	%
Gender	Male	1,235	884	71.6%	1,404	1,008	71.8%	1,255	883	70.4%
	Female	1,112	844	75.9%	1,561	1,201	76.9%	1,470	1,069	72.7%
H.S. Rank*	Bottom Quartile	239	144	60.3%	261	140	53.6%	286	174	60.8%
	3rd Quartile	657	478	72.8%	855	641	75.0%	744	536	72.0%
	2nd Quartile	692	535	77.3%	878	709	80.8%	662	508	76.7%
	Top Quartile	275	227	82.5%	314	255	81.2%	299	222	74.2%
Race/ Ethnicity	African American	340	236	69.4%	319	231	72.4%	327	222	67.9%
	Hispanic/Latino(a)	218	149	68.3%	276	201	72.8%	252	175	69.4%
	American Indian	13	6	46.2%	18	10	55.6%	13	9	69.2%
	Southeast Asian	184	143	77.7%	245	171	69.8%	185	134	72.4%
	Two or More Races - URM	55	46	83.6%	82	59	72.0%	92	66	71.7%
	<i>URM Subtotal</i>	810	580	71.6%	940	672	71.5%	869	606	69.7%
	Hawaiian/Pacific Is.	*	*	*	*	*	*	*	*	*
	Other Asian	55	51	92.7%	50	41	82.0%	51	34	66.7%
	Two or More Races - Non-URM	14	9	64.3%	12	9	75.0%	14	10	71.4%
	White	1,420	1,065	75.0%	1,904	1,451	76.2%	1,746	1,278	73.2%
	Unknown	*	*	*	8	*	*	*	*	*
	<i>Non-URM Subtotal</i>	1,498	1,131	74.7%	1,977	1,506	75.9%	1,818	1,328	73.0%
International	39	17	43.6%	48	31	64.6%	38	18	47.4%	
Age	19 and Under	2,133	1,626	76.2%	2,753	2,106	76.5%	2,522	1,848	73.3%
	20 to 24	142	65	45.8%	148	78	52.7%	149	72	48.3%
	25 to 34	49	26	53.1%	48	19	39.6%	40	28	70.0%
	35 and Over	23	11	47.8%	16	6	37.5%	14	*	*
Pell Grant	Recipient	1,168	847	72.5%	1,408	1,040	73.9%	1,310	925	70.6%
	Not a Recipient	1,179	881	74.7%	1,557	1,169	75.1%	1,415	1,027	72.6%
Total	All Char.	2,347	1,728	73.6%	2,965	2,209	74.5%	2,725	1,952	71.6%

* To protect student privacy, data are not shown when there are five or fewer students placed into remediation or completing remediation.

** Subtotals do not necessarily sum to total due to missing data.

Note: Two or More Races-URM includes students identifying as two or more races, one of which is an underrepresented minority group. Two or More Races-Non-URM includes students identifying as two or more races, none of which is an underrepresented minority group.

Affirmation of Commitment to
Public Television and Determination to
Retain All Spectrum by Foregoing
the Proposed Federal Communications Commission
Incentive Spectrum Auction

BOARD OF REGENTS OF THE UNIVERSITY OF WISCONSIN SYSTEM

Resolution II.10.

WHEREAS, the Board of Regents of the University of Wisconsin System is responsible for managing, operating and maintaining WHA-TV, the public television station that provides educational programming for lifelong learning to 377,000 television households in south central Wisconsin, garnering 162,500 weekly viewers and learners; and

WHEREAS WHA-TV is supported by more than 25,000 contributing members of Friends of Wisconsin Public Television, Inc., across the region; and

WHEREAS the Board of Regents recognizes the historic, essential and expanding role of WHA-TV in fulfilling the Wisconsin Idea by providing programming to support the educational, cultural and civic well-being of south central Wisconsin; and

WHEREAS, having assessed a prospective, but uncertain and limited opportunity to sell, share or move the station to a diminished broadcast frequency through the Federal Communications Commission's (FCC's) proposed Incentive Spectrum Auction;

BE IT THEREFORE RESOLVED that the Board of Regents hereby affirms its ongoing commitment to providing high-quality, locally-relevant educational, civic and cultural programming through WHA-TV and, consequently, determines that it will retain all of its spectrum and its current channel assignment by foregoing participation in the FCC's Incentive Spectrum Auction, if the FCC includes Madison as an auction market.

**FEDERAL COMMUNICATIONS COMMISSION
INCENTIVE SPECTRUM AUCTION**

BACKGROUND

Pursuant to s. 36.25(5)(a), Wis. Stats., the UW System Board of Regents, as licensee, is charged with managing, operating and maintaining broadcasting station WHA-TV. WHA-TV is the public television station in Madison, Wisconsin. Licensed to the Board of Regents by the FCC, WHA-TV has served south central Wisconsin since 1954. WHA-TV is the flagship station for the six-station Wisconsin Public Television network, which is jointly operated by the UW System and the Wisconsin Educational Communications Board (ECB).

WHA-TV serves 377,000 households in 11 counties throughout south central Wisconsin. Through its partnership with the ECB, WHA-TV supports and provides programming to 1.2 million households in Wisconsin. Weekly viewing for WHA-TV exceeds 162,500 people, and with ECB stations the WPT network is viewed by 537,000 people each week.

The Federal Communications Commission (FCC) had indicated that it plans to conduct a television incentive spectrum auction in 2016, to make spectrum available for purchase by wireless carriers. "Spectrum" is the range of electro-magnetic frequencies that carries signals for television, radio, wireless internet and other signals like those used in garage door openers, baby monitors and more.

The spectrum auction process includes two steps, a voluntary auction and a subsequent involuntary repack process:

- (1) Every television station in select markets will have the option to enter the auction to surrender its broadcast spectrum, channel share with another broadcaster, or move from the UHF spectrum to a high (channels 7-13) or low (channels 2-6) VHF spectrum channel.

Licensees also have the option of declining to participate in the auction in any capacity.

The FCC will compensate participating stations based on market size, signal interference with other stations in the market and in relation to the "loss of service" represented in each option available to stations.

- (2) Subsequent to the auction, the FCC will reorganize station frequency allocations into a smaller band of spectrum and notify each remaining station if it must move to a new frequency. The re-alignment of stations' broadcast frequencies is referred to as "the repack." The FCC has set aside some funds to reimburse stations for much of the cost of the involuntary "repack" portion of the auction.

It is not yet known whether Madison will be an auction market making WHA-TV eligible to participate; however, the FCC estimates that WHA-TV might be worth between \$35 and \$40 million in a successful auction bid.

REQUESTED ACTION

Adoption of Resolution II.10, declining to participate in the proposed FCC incentive spectrum auction, should the FCC include Madison as an “auction market.”

DISCUSSION

The FCC is expected to publish a list of station “opening bid” prices in October 2015. All stations will be assigned opening bid prices. Because ultimate sale prices will be determined through a “descending clock” (reverse) auction, opening bid prices will be many multiples of projected actual sales prices. Stations that sell will be those accepting the lowest price(s) in the market. Up to 10% of the country’s more than 2,000 television stations are expected to make successful bids to participate in the auction. Stations outside the FCC’s target auction markets will not have the opportunity to participate. The FCC has not established whether Madison will be a designated auction market.

Stations may choose to not participate. There are several options for participating stations. Stations may submit bids to sell their frequency, share a single frequency with another broadcaster or to move to an undesirable frequency in the VHF band (Channels 2-13) that brings significant impairments and limitations. Compensation to stations will be commensurate with market size and their proposed level of participation.

- (1) **Option One: Accepting a bid for relinquishing the WHA-TV license.** This would mean that the station would be off the air permanently.

Impact: WHA-TV would be disbanded. Madison and surrounding counties would lose public television service, ending more than 60 years of public television access for 377,000 households. ECB would lose its partner and flagship station, diminishing public television across the five regions served by ECB. There would be no cable or satellite delivery of WHA-TV with the cessation of the broadcast signal.

The sale of the frequency to WHA-TV could generate up to \$40 million if no other Madison station proposes a lower “selling bid” and if the FCC needs to acquire a station in the Madison market to achieve its goals. This represents less than four times the annual revenue generated by and for the service through fundraising and other program revenue. WHA-TV would incur legal and capital costs of dismantling the transmission facilities.

In addition, Option One would appear to require a statutory change, since s. 36.25(5), Wis. Stats., indicates that the Board “shall maintain, operate and manage” WHA-TV; selling the spectrum and closing down the station would not comport with the statutory language.

- (2) **Option Two: Enter into a channel sharing agreement with another broadcaster** in the Madison market to share one station's spectrum.

Impact: One or two of the three channels WPT now broadcasts would be lost. Loss of service, viewership and revenue would result, as would disruption of continuity of WPT's statewide broadcast schedules with ECB. This option would require WHA-TV to find a willing partner in the market and to negotiate a perpetual business partnership with a commercial broadcaster with a different mission and business objective.

This option might yield one-half the amount of an outright sale of the station to be negotiated with the new partner station. WHA-TV would incur legal and capital costs to transition to new partnership.

- (3) **Option Three:** In some of the designated auction markets, a station may have the option of electing to be compensated for a **move from the UHF Band to the less desirable VHF Band.**

Impact: There would be a loss of coverage to some portion of the estimated 20% of viewers in the Madison market who currently receive over-the-air broadcast only. The signal would be disrupted by signal interference from a variety of sources. Emerging technologies do not work well, or at all, with VHF signals.

Payment to transition to a "high-VHF" frequency would be 40% of the prospective sale price. WHA-TV would incur legal and capital costs for transitioning to a new channel and would see some decline in annual revenue.

The FCC advises that there are no high-VHF band frequencies available in the Madison market at this time. An independent engineering study commissioned by WHA-TV states that movement to a "low-VHF" frequency is not recommended. The study confirmed that there is very minimal likelihood that a "high-VHF band" frequency would become available through the auction process.

- (4) **Option Four: Decline to participate, retaining current frequency and maintaining current operations.**

The Educational Communications Board of Directors has indicated that participation in the auction is not desirable based on the likely impacts outlined above and that participation would be contrary to its public service and educational mission.

Malcolm Brett of UW-Extension, which operates WHA-TV, has prepared a Frequently Asked Questions document, attached.

It is important to note that submission of a bid of any amount to participate in any aspect of the auction would trigger a "quiet period" on the part of the bidder. During this period, likely November/December 2015 to June 2016, the quiet period would make any public comment about the University's participation in the auction by Regents, leadership or staff a violation of federal law.

RELATED POLICIES AND APPLICABLE LAWS

Section 36.25(5)(a), Wis. Stats.

**Federal Communications Commission (FCC)
Television Spectrum Incentive Auction FAQ's
October 2015**

As authorized by Congress in February 2012, the FCC intends to stage a Television Spectrum Incentive Auction to acquire television broadcast frequencies (spectrum) at certain wavelengths to then be sold to Mobile Broadband providers. Participation in the auction will be voluntary and any station in designated communities will be eligible to participate. The Auction is tentatively scheduled to take place over two months beginning March 29, 2016. Stations wishing to participate in the auction must notify the FCC of their specific proposals by mid-December, 2015. Wireless industry estimates project demand for additional wireless connectivity is such that the FCC may acquire more than 200 television frequencies from broadcasters for re-sale to wireless broadband providers. The FCC anticipates that wireless companies may bid in the billions of dollars for these frequencies.

Is WHA-TV participating in the auction?

Although it is possible that WHA-TV may be invited to participate, this would result in the shuttering of WHA-Television and the loss of public television to south central Wisconsin.

The FCC granted a Non Commercial Educational (NCE) broadcast license to the Board of Regents for WHA-TV to serve the public interest, convenience and necessity. It was the nation's fourth public television station, signing on in 1954. WHA-TV has been recognized as one of public media's innovation leaders since inception. WHA-TV's non-commercial educational service continues to be a growing and essential contributor to the educational, civic and cultural health of south central Wisconsin. Selling the frequency for WHA-TV would end the University's ability to fulfill its public service outreach mission through television's powerful and prominent capacity to reach people through broadcast and the internet.

WHA-TV operates in partnership with the Educational Communications Board's five public television stations. Wisconsin Public Television (WPT) is constructed as an integrated broadcasting network (except for Milwaukee), providing an equivalent level of service statewide. Participation in the auction would undermine WPT's effectiveness, efficiency, reach and sustainability.

Children watch over 300,000 hours of educational programming each month on WHA-TV (and 1.4 million hours across Wisconsin Public Television's 6 stations). Families view approximately 375,000 hours of news and public affairs programming (600,000 hours across the network) and over 200,000 hours of history programming on WHA-TV (448,000 hours across the network).

What TV stations are eligible for the auction?

All television stations in select markets across the country may be eligible. Stations most likely to receive bids in the auction are those that cover large population bases on the East and West coasts and in some of the largest cities in between. The FCC initially identified 30 "target markets." Given the value attributed to populations adjacent to the target markets, and the physics of broadcasting that can create signal interference among television signals, it is possible that additional stations in up to 70+ markets could be invited to participate in the auction.

Most Wisconsin cities do not meet the FCC's primary criteria, but Milwaukee is considered an "adjacent market" (to Chicago), of significance in the FCC's plans.

The FCC has indicated it may seek to acquire one station in the Madison market, but may also exclude Madison from the auction. The Madison market (or the area served by the WHA-TV signal) includes all, or a substantial portion of, Columbia, Dane, Dodge, Green, Iowa, Jefferson, Lafayette, Richland, Rock, Sauk and Walworth Counties and some areas in Adams, Grant, Green Lake, Juneau, Marquette and Waukesha Counties.

What happens if a TV station sells its spectrum?

The station would relinquish its FCC license, go off the air, and cease operations. Selling the spectrum back to the FCC means a station will no longer have a license to broadcast its signal over the air. Because cable and satellite providers carry local stations based on their over-the-air broadcast status, the station could no longer be carried on cable or satellite, and could no longer serve its television audience.

Don't most viewers watch on cable and satellite? Why do we need a broadcast frequency and transmitter?

Approximately 20% of viewers in south central Wisconsin do not subscribe to cable or satellite. They watch television through "over-the-air" broadcast signals. This number is remaining steady and may grow in the coming years. Further, cable and satellite companies would no longer be required to carry channels if they were not also broadcast over the air. Many cable companies acquire the WHA-TV signal for re-transmission through over-the-air broadcasts.

WHA-TV's legal rights to deliver programming to cable and satellite viewers in the region are predicated on the licensing of programs for broadcast. In the absence of those broadcasts WHA-TV would be unable to convey programming for cable and satellite delivery.

What is the prospective selling price for WHA-TV?

Should there be an auction in the Madison market the FCC estimates WHA-TV's prospective selling price at \$35-\$40 million.

Couldn't some of this money be used to address state funding cuts?

The public television license granted to the Regents on behalf of viewers in the Madison area was granted in perpetuity as a community-based asset. While it may have marketable value, the license was acquired to serve families in south central Wisconsin, not as an asset to be monetized.

If WHA-TV were sold, the communities it serves would lose their public television station.

In giving up a successful and valued community asset, the proposed selling price would yield only four times the annual revenue generated for the service.

Aren't there alternatives to selling the frequency?

The FCC will allow stations to retain their licenses and enter into partnership with other stations. In this model, "channel sharing," two stations might agree to share one frequency while selling the other frequency and sharing proceeds. This option would come at the cost of significant service, as WHA-TV would have to reduce the number of channels it is broadcasting over its current frequency.

Beyond the loss of service, in this model technical, financial and programming issues would be difficult to negotiate and maintain over time. This model would require the University to enter into a permanent and binding operating agreement with a commercial broadcaster, operating under different service and business objectives.

Divesting of up to half of WHA-TV's broadcast frequency would limit opportunities for innovation and development of new services as broadcast technology evolves.

The FCC may offer stations in some markets compensation to move to an undesirable frequency in the VHF band (Channels 2-13). The frequencies at the low end of this band (2-6) are unacceptable because of serious signal impairments that would result in significant interference. Channels 7-13, at the high end of the VHF band are less impaired than low-band VHF signals. These "high-VHF frequencies" come with some loss of service to current audiences and would forestall some emerging technology applications.

An independent engineering firm has recommended against transitioning to a "low VHF" frequency and has determined that there are no "high-VHF" signals available for use in the Madison market and none are likely to become available through the incentive auction process.

Will there be additional Spectrum Auctions in the future?

None are envisioned by the FCC at this point in time.

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