

Report on Remedial Education in the UW System: Demographics, Remedial Completion, Retention, and Graduation September 2009

Introduction

This report provides information on new freshmen, beginning in the fall of an academic year, who were identified as needing Math and/or English remediation in the UW System. A section is also included on UW institutional efforts to reduce remediation and promote the success of students who need remediation. The report contains six main sections and two appendices:

- Section I: Trends in Math and English Remediation
- Section II: Math and English Remedial Requirement by Selected Characteristics of New Freshmen
- Section III: Math and English Remediation Completion in the First Year
- Section IV: Retention Rate by Math and English Remediation
- Section V: Six Year Graduation Rate 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 and English Remediation Required and Completed by UW Institution, Fall 2005-Fall 2007

Report Highlights

- ◆ The percentage of new freshmen requiring Math remediation has risen from 17.0 percent to 21.3 percent over the most recent three-year time period spanning fall 2005 to fall 2007. The percentage of new freshmen requiring English remediation decreased slightly from 7.8 percent in fall 2005, to 6.7 percent in fall 2007.
- ◆ Compared to Math remediation, students are more likely to complete English remediation in their first year.
- ◆ 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 a student's chances of obtaining a bachelor's degree within six years.
- ◆ UW institutions are involved in a variety of efforts with the goal of reducing the need for Math and English remediation. One set of efforts involves UW faculty working with high school to align mathematics curricula. UW institutions are also modifying courses using new technologies and techniques to ensure that students who need remediation succeed in their coursework. Additional support is provided to students including workshops/labs with peer and/or faculty assistance and other supplemental learning services.

Section I: Trends in Math and English Remediation

Charts 1 and 2 provide data on the percent of new freshmen needing Math and English remediation from fall 1990 to fall 2007. Over the period since the last report from fall 2005 to fall 2007, the percentage of new freshmen who were required to take Math remediation increased from 17.0 percent to 21.3 percent. During the same period of time, the percentage of new freshmen needing English remediation declined from 7.8 percent to 6.7 percent. Overall, Math remediation was required more than English remediation. Appendix B contains UW institutional-level data, showing the number and percent of new freshmen requiring Math and English remediation for the fall 2005 through fall 2007.

The percentage of new freshmen needing Math remediation in fall 2007 (21.3%) is higher than the 20.6 percent of new freshmen needing Math remediation in fall 1990, when the Board of Regents last modified the remedial education policy. Over the past 18 years, the percentage of students requiring Math remediation was the lowest in fall 2000 (10.2%) and has been rising since then. The percentage of new freshmen needing English remediation in fall 2007 (6.7%) is lower than the 10.1 percent needing English remediation in fall 1990.

Chart 3 provides data on the percent of new freshmen needing both Math and English remediation from fall 1990 to fall 2007. In fall 2007, 4.5 percent of new freshmen required both Math and English remediation. Over the past 18 years, the percentage of new freshmen needing both Math and English remediation was the highest in fall 1990 (5.3%) and was the lowest in fall 1999 (3.1%).

Chart 1
New Freshmen Needing Math Remediation

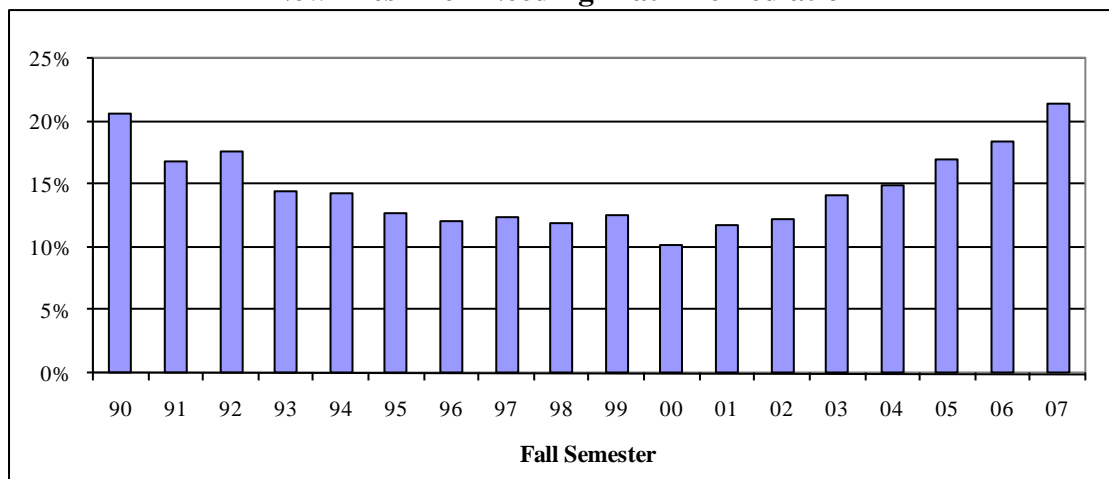


Chart 2
New Freshmen Needing English Remediation

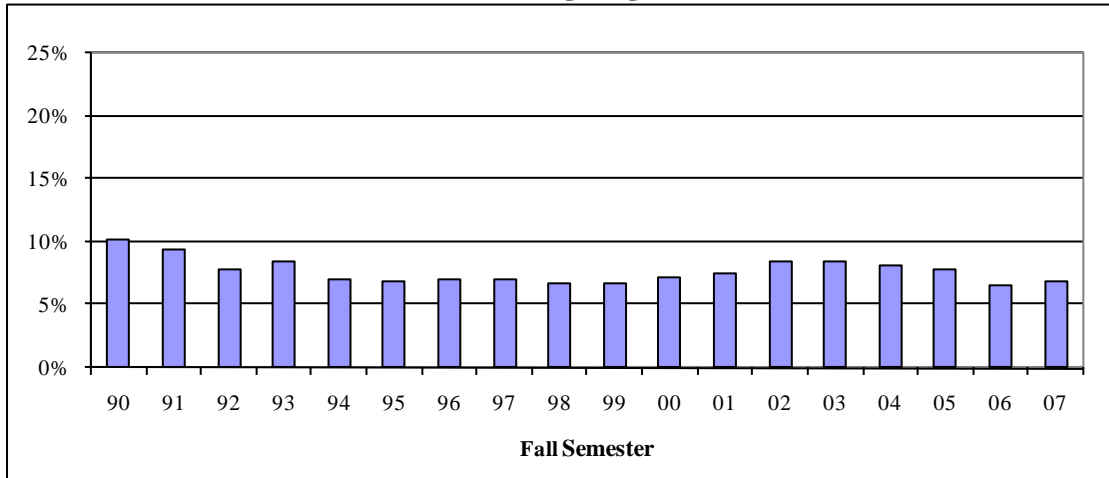
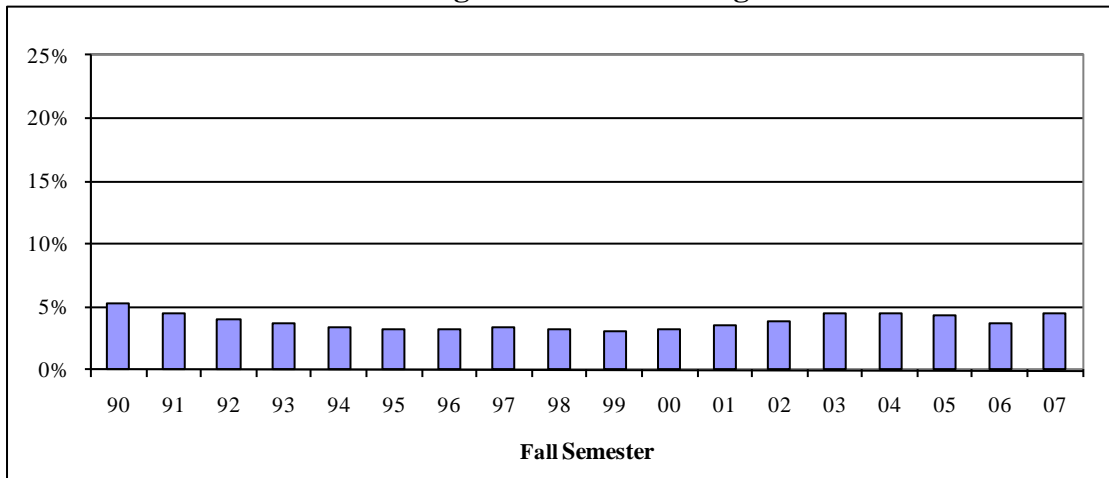


Chart 3
New Freshmen Needing Both Math and English Remediation



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

Tables 1 and 2 show the numbers and percentages of all new freshmen who needed remediation in relation to demographic and academic variables. Table 1 provides the data regarding students who needed Math remediation and Table 2 provides the data regarding students who needed English remediation. Both tables cover a three-year span from fall 2005 through fall 2007.

In all three years, a higher percentage of females were required to take Math remediation (males 19.1% and females 23.2%, in 2007). Conversely, a slightly higher percentage of males needed English remediation (males 7.3% and females 6.3%, in 2007). The percentage for both males and females needing Math remediation increased (males from 14.6% to 19.1% and females from 18.9% to 23.2%). However, for both males and females, the percentages needing English remediation declined slightly from fall 2005 to fall 2007 (males from 8.1% to 7.3% and females from 7.6% to 6.3%).

The need for remediation is closely related to performance on the ACT examination and to high school class rank: the higher the student's ACT score and class rank, the less likely the need for remediation. In fall 2007, 66.7 percent of students achieving an ACT Math score of 18 or below needed Math remediation. Similarly, 30.2 percent of students achieving an ACT English score of 18 or below needed English remediation. For students who ranked in the lowest quartile of their high school class, 55.4 percent required Math remediation and 17.1 percent required English remediation, contrasting sharply with the highest quartile in which 7.6 percent required Math remediation and 2.2 percent required English remediation. However, in fall 2007, only 4.8 percent of UW new freshmen were in the lowest quartile, while 44.5 percent were in the highest quartile. Grouping the new freshmen into bottom and top half of high school rank, 44.4 percent of the students from the bottom half of their high school class required Math remediation and 15.2 percent needed English remediation. This compares to 15.4 percent of students in the top half who required Math remediation and 4.7 percent who needed English remediation. (Note that the percentages provided in this paragraph are based on the proportion of students for whom high school rank and/or ACT score were available.)

Students of color entering the UW System as new freshmen required more Math remediation (35.1% in fall 2007) and English remediation (20.4% in fall 2007) than White/International students. Among students of color, African Americans were most likely to require Math remediation (55.4% in fall 2007) and English remediation (31.4 % in fall 2007).

New freshmen age 20 and over were more likely to require Math remediation than students age 19 and below in all three years. In fall 2007, 43.7 percent of students age 20 and over needed Math remediation while 20.2 percent of students age 19 and below needed Math remediation. New freshmen age 20 and over comprised 4.8 percent of the new freshmen class in fall 2007. Students age 20 to 24 were more likely to require English remediation than students in other age groups in fall 2005, 2006, and 2007.

New freshmen who received a Pell Grant have a higher rate requiring Math and English remediation than non-Pell recipients. In fall 2007, of new freshmen who received a Pell Grant, 32.7 percent needed Math remediation and 13.3 percent needed English remediation. This compares to 18.6 percent of non-Pell recipients who needed Math remediation and 5.2 percent of non-Pell recipients who needed English remediation.

Table 1
New Freshmen Needing Math Remediation
as a Percent of All New Freshmen
by Student Characteristic

Category	Characteristic	Fall 2005			Fall 2006			Fall 2007		
		All New Fresh	Need Remed	%	All New Fresh	Need Remed	%	All New Fresh	Need Remed	%
Gender	Male	13,410	1,956	14.6%	13,615	2,219	16.3%	14,331	2,743	19.1%
	Female	16,225	3,074	18.9%	15,727	3,158	20.1%	16,321	3,782	23.2%
ACT Math Score*	18 or Lower	5,409	3,100	57.3%	5,646	3,386	60.0%	5,517	3,679	66.7%
	19	1,564	402	25.7%	1,618	497	30.7%	1,769	666	37.6%
	20-21	3,541	561	15.8%	3,656	602	16.5%	3,487	803	23.0%
	22-26	10,339	482	4.7%	10,361	460	4.4%	10,770	767	7.1%
	27-36	6,356	20	0.3%	5,859	17	0.3%	6,618	23	0.3%
H.S. Rank*	Bottom Quartile	1,057	471	44.6%	985	511	51.9%	1,205	668	55.4%
	3rd Quartile	4,286	1,406	32.8%	4,191	1,531	36.5%	4,358	1,804	41.4%
	2nd Quartile	8,264	1,709	20.7%	8,157	1,860	22.8%	8,294	2,149	25.9%
	Top Quartile	11,426	704	6.2%	10,943	683	6.2%	11,125	844	7.6%
Race/ Ethnicity	African American	865	461	53.3%	903	484	53.6%	1,005	557	55.4%
	American Indian	233	61	26.2%	207	57	27.5%	256	69	27.0%
	Southeast Asian	522	132	25.3%	520	120	23.1%	566	150	26.5%
	Other Asian	592	75	12.7%	639	88	13.8%	605	102	16.9%
	Hispanic/Latino	688	193	28.1%	712	216	30.3%	839	271	32.3%
	<i>Students of Color Subtotal</i>	2,900	922	31.8%	2,981	965	32.4%	3,271	1,149	35.1%
	White/International	26,735	4,108	15.4%	26,361	4,412	16.7%	27,381	5,376	19.6%
Age	19 and Under	28,316	4,514	15.9%	28,002	4,878	17.4%	29,195	5,889	20.2%
	20 to 24	881	323	36.7%	886	337	38.0%	914	407	44.5%
	25 to 34	282	126	44.7%	302	117	38.7%	373	174	46.6%
	35 and Over	156	67	42.9%	152	45	29.6%	170	55	32.4%
Pell Grant	Recipient	4,960	1,361	27.4%	5,113	1,512	29.6%	5,857	1,917	32.7%
	Not a Recipient	24,675	3,669	14.9%	24,229	3,865	16.0%	24,795	4,608	18.6%
Total	All Char.	29,635	5,030	17.0%	29,342	5,377	18.3%	30,652	6,525	21.3%

* Subtotals do not necessarily sum to 100% due to missing data.

Table 1 (Math)

- ◆ The percentage of new freshmen requiring Math remediation increased from fall 2005 to fall 2007.
- ◆ Women were more likely to require Math remediation than men.
- ◆ The data show a relationship between performance on ACT and need for Math remediation.
- ◆ There is also a relationship between high school class rank and need for Math remediation.
- ◆ Among students of color, African Americans are most likely to require Math remediation.
- ◆ Older students are more likely to require Math remediation.
- ◆ Pell Grant recipients are more likely to require Math remediation than non-Pell recipients.

Table 2
New Freshmen Needing English Remediation
as a Percent of All New Freshmen
by Student Characteristic

Category	Characteristic	Fall 2005			Fall 2006			Fall 2007		
		All New Fresh	Need Remed	%	All New Fresh	Need Remed	%	All New Fresh	Need Remed	%
Gender	Male	13,410	1,082	8.1%	13,615	917	6.7%	14,331	1,040	7.3%
	Female	16,225	1,234	7.6%	15,727	974	6.2%	16,321	1,022	6.3%
ACT English Score*	18 or Lower	5,850	1,760	30.1%	5,959	1,587	26.6%	5,631	1,699	30.2%
	19	1,742	133	7.6%	1,746	74	4.2%	1,837	108	5.9%
	20-21	4,454	185	4.2%	4,739	100	2.1%	4,831	84	1.7%
	22-26	9,263	64	0.7%	9,078	23	0.3%	9,953	31	0.3%
	27-36	5,900	5	0.1%	5,618	5	0.1%	5,909	1	0.0%
H.S. Rank*	Bottom Quartile	1,057	200	18.9%	985	157	15.9%	1,205	206	17.1%
	3rd Quartile	4,286	698	16.3%	4,191	561	13.4%	4,358	640	14.7%
	2nd Quartile	8,264	782	9.5%	8,157	661	8.1%	8,294	680	8.2%
	Top Quartile	11,426	347	3.0%	10,943	248	2.3%	11,125	242	2.2%
Race/ Ethnicity	African American	865	308	35.6%	903	313	34.7%	1,005	316	31.4%
	American Indian	233	22	9.4%	207	13	6.3%	256	22	8.6%
	Southeast Asian	522	175	33.5%	520	116	22.3%	566	137	24.2%
	Other Asian	592	80	13.5%	639	58	9.1%	605	68	11.2%
	Hispanic/Latino	688	122	17.7%	712	89	12.5%	839	124	14.8%
	<i>Students of Color Subtotal</i>	2,900	707	24.4%	2,981	589	19.8%	3,271	667	20.4%
	White/International	26,735	1,609	6.0%	26,361	1,302	4.9%	27,381	1,395	5.1%
Age	19 and Under	28,316	2,186	7.7%	28,002	1,779	6.4%	29,195	1,940	6.6%
	20 to 24	881	92	10.4%	886	94	10.6%	914	92	10.1%
	25 to 34	282	27	9.6%	302	15	5.0%	373	20	5.4%
	35 and Over	156	11	7.1%	152	3	2.0%	170	10	5.9%
Pell Grant	Recipient	4,960	772	15.6%	5,113	654	12.8%	5,857	778	13.3%
	Not a Recipient	24,675	1,544	6.3%	24,229	1,237	5.1%	24,795	1,284	5.2%
Total	All Char.	29,635	2,316	7.8%	29,342	1,891	6.4%	30,652	2,062	6.7%

* Subtotals do not necessarily sum to 100% due to missing data.

Table 2 (English)

- ◆ The percentage of new freshmen requiring English remediation decreased from fall 2005 to fall 2007.
- ◆ Men were slightly more likely to require English remediation than women.
- ◆ The data show a relationship between performance on ACT and need for English remediation.
- ◆ There is also a relationship between high school class rank and need for English remediation.
- ◆ Among students of color, African Americans are most likely to require English remediation.
- ◆ Students age 20 to 24 are most likely to require English remediation.
- ◆ Pell Grant recipients are more likely to require English remediation than non-Pell recipients.

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

Charts 4 and 5 provide trend data for the percent of new freshmen who completed remediation in the first year from fall 1990 to fall 2007. Over the period since the last report, from fall 2005 to fall 2007, the percentage of new freshmen who completed Math remediation in the first year remained steady between 57 percent and 60 percent (59.2% in fall 2007). During the same period of time, the percentage of new freshmen who completed English remediation in the first year increased from 73.6 percent to 75.4 percent. Appendix B contains UW institutional-level data, showing the number and percent of new freshmen who completed remediation in the first year from fall 2005 to fall 2007.

For new freshmen who entered the UW System in fall 2007 and required remediation, the first year Math remediation completion rate was the highest since 1994 and the first year English remediation completion rate was the highest since 2000. Compared to Math remediation, students are more likely to complete English remediation in their first year.

Chart 4
Math Remediation Completed in the First Year

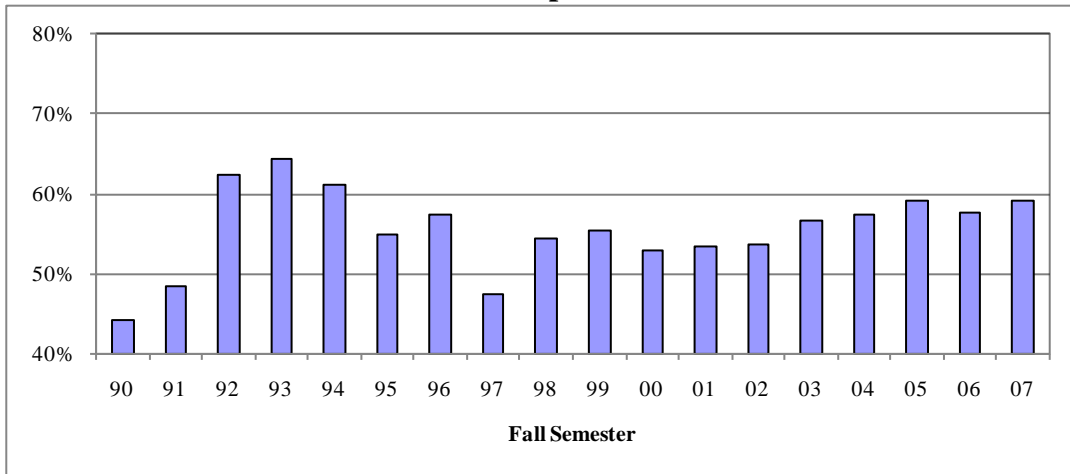
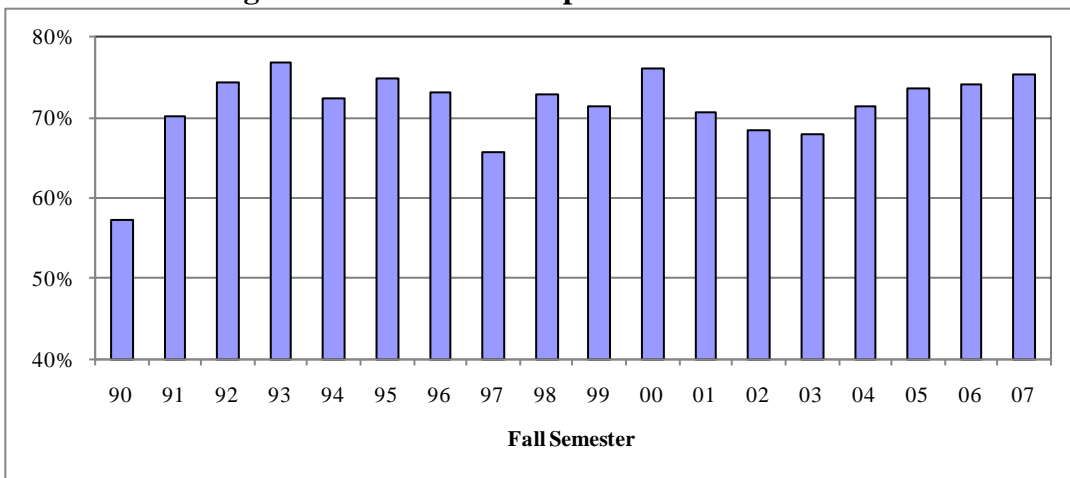


Chart 5
English Remediation Completed in the First Year



Tables 3 and 4 provide the numbers and percentages of new freshmen needing and completing remediation in the first year by selected student characteristics. Table 3 shows the data regarding students who completed Math remediation in the first year and Table 4 provides the data regarding students who completed English remediation in the first year. Both tables cover a three-year span from fall 2005 through fall 2007.

In general, for new freshmen needing remediation, students of color were less likely to complete Math and English remediation during their first year than White/International students. Of the new freshmen entering in fall 2007, 47.7 percent of students of color who needed Math remediation completed the remedial requirement in the first year, comparing with 61.7 percent of white/International students. African Americans and American Indians have lower rates of Math remediation completion in the first year than other students of color. Among all students, Southeast Asians have the highest rate of English remediation completion in the first year (81.8% in fall 2007).

Pell Grant recipients identify new freshmen from lower income families. In all three years, students who received a Pell Grant were less likely to complete Math and English remediation in the first year than non-Pell Grant recipients. Of the new freshmen entering in fall 2007 and needing Math remediation, 54.7 percent of Pell Grant recipients completed the requirement in the first year while 61.1 percent of non-Pell recipients completed the requirement in the first year.

Table 3
Students Completing Math Remediation in the First Year
as a Percent of All New Freshmen Needing Math Remediation
by Student Characteristic

Category	Characteristic	Fall 2005			Fall 2006			Fall 2007		
		Need Remed	Compl in the First Year	%	Need Remed	Compl in the First Year	%	Need Remed	Compl in the First Year	%
Race/ Ethnicity	African American	461	184	39.9%	484	169	34.9%	557	228	40.9%
	American Indian	61	28	45.9%	57	27	47.4%	69	28	40.6%
	Southeast Asian	132	92	69.7%	120	74	61.7%	150	91	60.7%
	Other Asian	75	46	61.3%	88	52	59.1%	102	63	61.8%
	Hispanic/Latino	193	115	59.6%	216	121	56.0%	271	138	50.9%
	<i>Students of Color Subtotal</i>	922	465	50.4%	965	443	45.9%	1,149	548	47.7%
	White/International	4,108	2,505	61.0%	4,412	2,660	60.3%	5,376	3,317	61.7%
Pell Grant	Recipient	1,361	724	53.2%	1,512	796	52.6%	1,917	1,048	54.7%
	Not a Recipient	3,669	2,246	61.2%	3,865	2,307	59.7%	4,608	2,817	61.1%
Total	All Char.	5,030	2,970	59.0%	5,377	3,103	57.7%	6,525	3,865	59.2%

Table 4
Students Completing English Remediation in the First Year
as a Percent of All New Freshmen Needing English Remediation
by Student Characteristic

Category	Characteristic	Fall 2005			Fall 2006			Fall 2007		
		Need Remed	Compl in the First Year	%	Need Remed	Compl in the First Year	%	Need Remed	Compl in the First Year	%
Race/ Ethnicity	African American	308	205	66.6%	313	204	65.2%	316	226	71.5%
	American Indian	22	15	68.2%	13	4	30.8%	22	17	77.3%
	Southeast Asian	175	135	77.1%	116	98	84.5%	137	112	81.8%
	Other Asian	80	54	67.5%	58	42	72.4%	68	52	76.5%
	Hispanic/Latino	122	81	66.4%	89	59	66.3%	124	83	66.9%
	<i>Students of Color Subtotal</i>	707	490	69.3%	589	407	69.1%	667	490	73.5%
	White/International	1,609	1,214	75.5%	1,302	996	76.5%	1,395	1,064	76.3%
Pell Grant	Recipient	772	547	70.9%	654	479	73.2%	778	585	75.2%
	Not a Recipient	1,544	1,157	74.9%	1,237	924	74.7%	1,284	969	75.5%
Total	All Char.	2,316	1,704	73.6%	1,891	1,403	74.2%	2,062	1,554	75.4%

Section IV: Retention Rates by Math and English Remediation

Figures 1 and 2 exhibit second year retention rates of fall 2006 new freshmen. Comparisons are presented regarding the retention rates of students who needed 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 need remediation. However, for those who needed and completed remediation during their first year, second year retention rates were comparable to the rates for the students who did not need remediation. About 77 percent of students who needed and completed Math remediation were retained to the following year, while only 43.4 percent of those who needed, but did not complete the requirement were retained. Similarly, almost 71 percent of students who needed and completed English remediation were retained to the following year, compared with only 31.6 percent of students who needed but did not complete remediation.

Students who needed remediation were also less likely to be retained to the third year than students who did not need remediation. Among students who required remediation, those who completed the requirement in the first year had a much higher third year retention rate than students who did not complete the requirement. Of the new freshmen who needed and completed Math remediation in the first year, 56.8 percent were retained to the third year, while only 29.4 percent of those who needed, but did not complete Math requirement, were retained to the third year. Similarly, the third year retention rate was 52.4 percent for students who needed and completed English remediation during their first year, compared with 23.4 percent for those who did not complete English requirement during their first year.

These findings 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 18.3 percent of new freshmen in fall 2006.
- ◆ Of the new freshmen who did not require Math remediation, 78.2 percent were retained to the second year and 66.9 percent were retained to the third year.
- ◆ Of those who needed and completed Math remediation during their first year, 77.0 percent were retained to the second year, compared with 43.4 percent for those who did not complete the requirement during their first year.
- ◆ Of those who needed and completed Math remediation during their first year, 56.8 percent were retained to the third year, compared with 29.4 percent for those who did not complete the requirement during their first year.

Figure 2 (English)

- ◆ English remediation was required by 6.4 percent of new freshmen in fall 2006.
- ◆ Of the new freshmen who did not require English remediation, 76.4 percent were retained to the second year and 64.2 percent were retained to the third year.
- ◆ Of those who needed and completed English remediation during their first year, 71.0 percent were retained to the second year, compared with 31.6 percent for those who did not complete the requirement during their first year.
- ◆ Of those who needed and completed English remediation during their first year, 52.4 percent were retained to the third year, compared with 23.4 percent for those who did not complete the requirement during their first year.

Figure 1

**Second Year Retention Rate at Institution Where Started
for New Freshmen Entering Fall 2006
by Completion of Math Remedial Requirement**

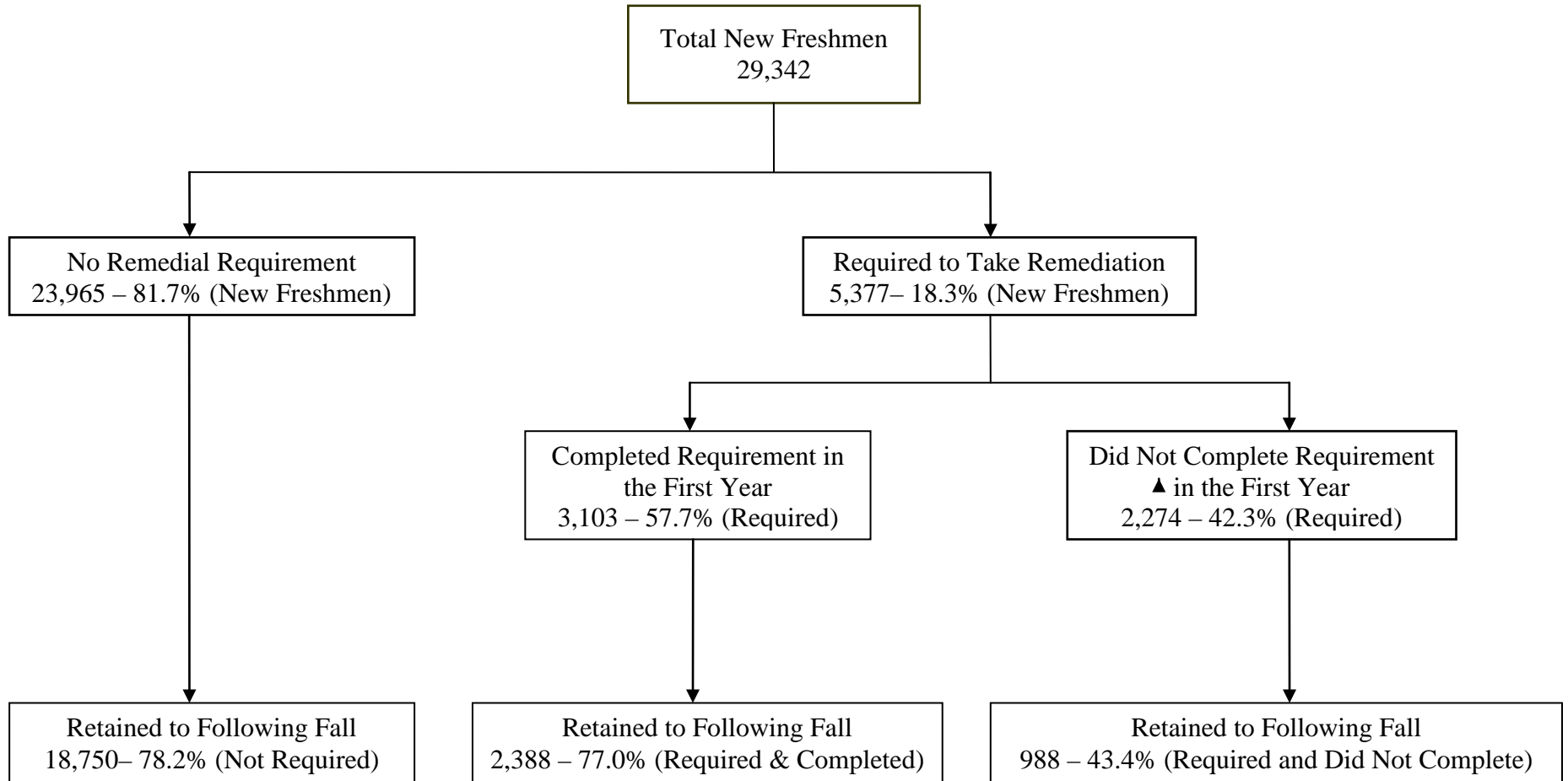
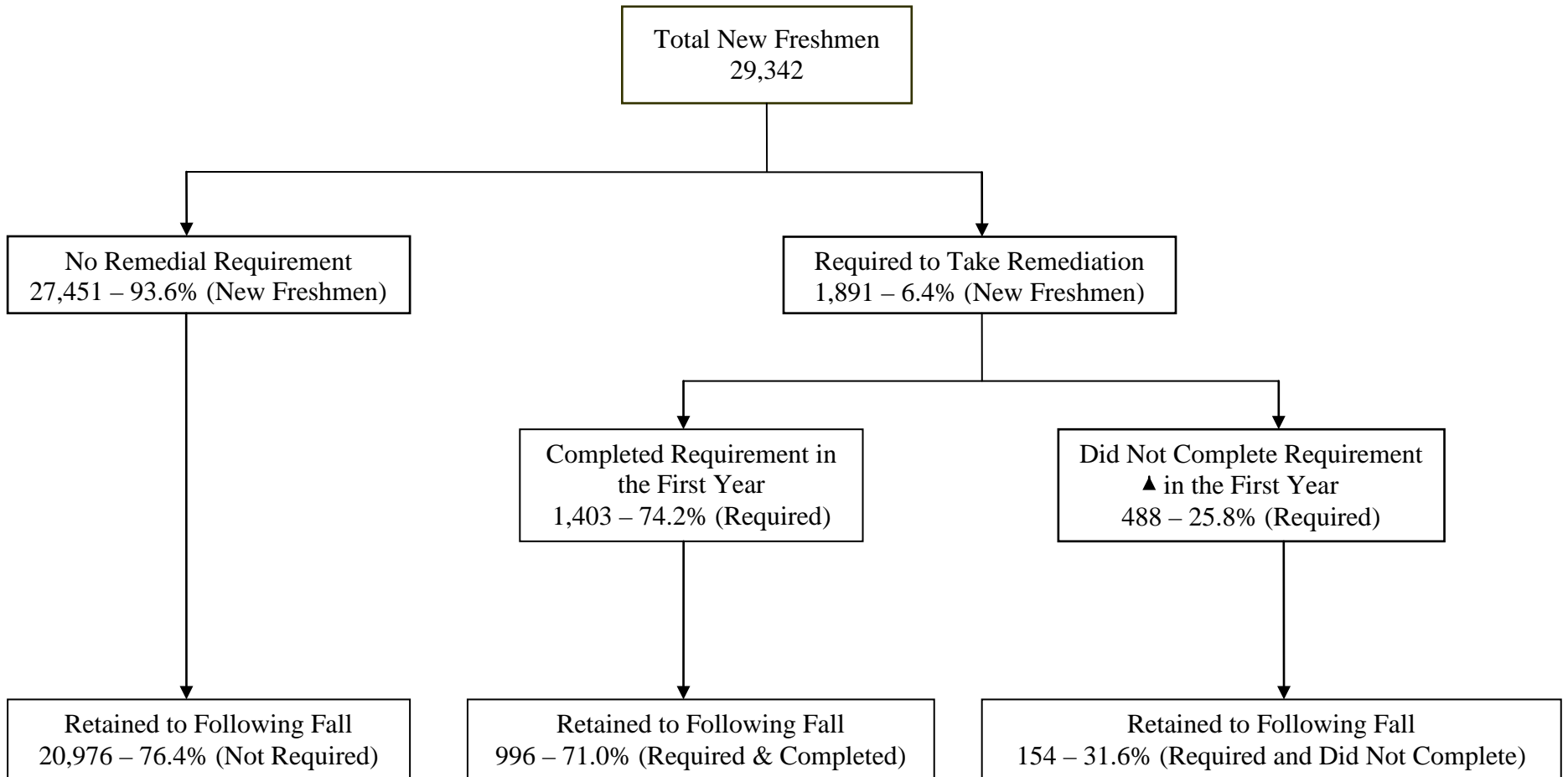


Figure 2

**Second Year Retention Rate at Institution Where Started
for New Freshmen Entering Fall 2006
by Completion of English Remedial Requirement**



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 2002. 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 needed 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 identified as needing remediation are lower than those of new freshmen who do not require remediation, a significant percentage of students requiring remediation successfully complete their undergraduate education. Since all students identified as needing 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)

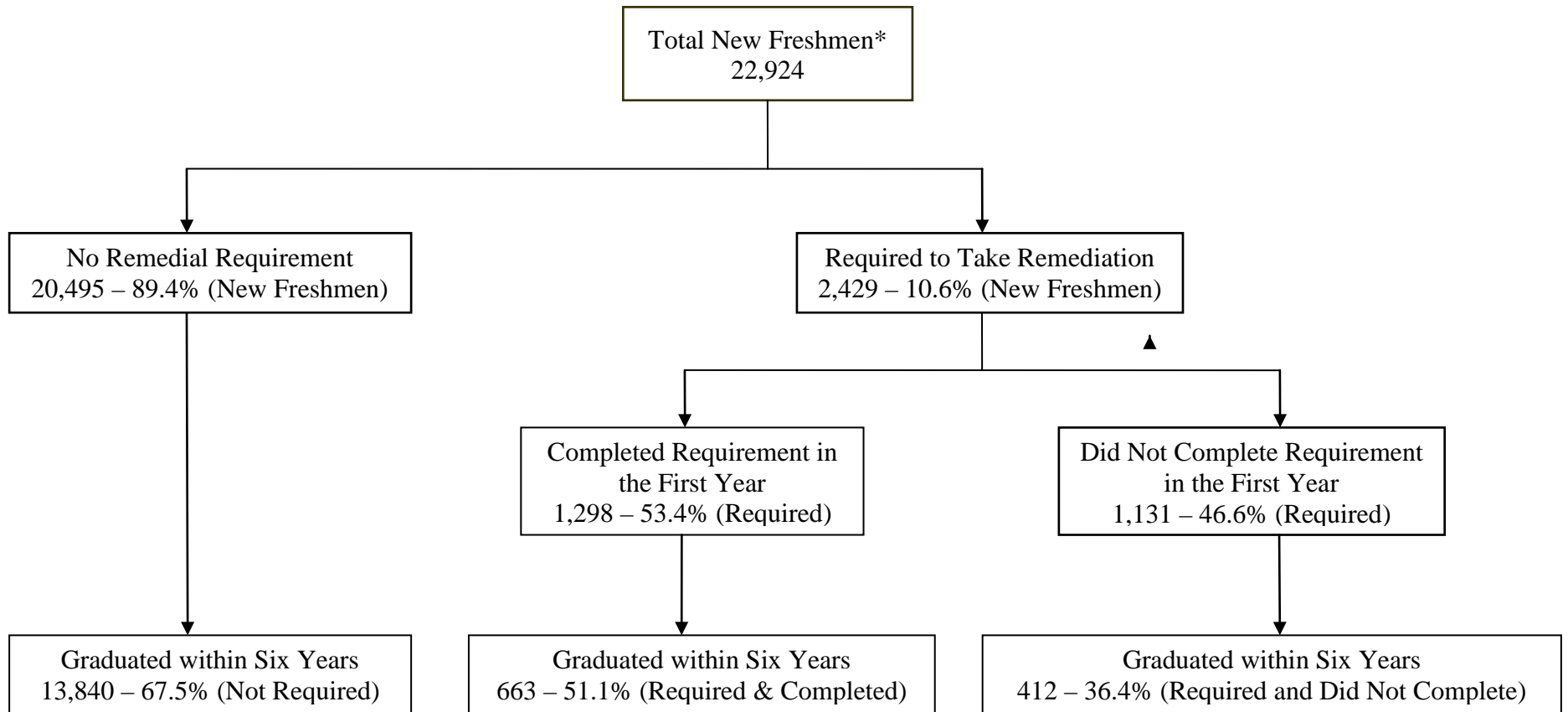
- ◆ Math remediation was required by 10.6 percent of new freshmen entering full-time in fall 2002.
- ◆ Of students who did not require Math remediation, 67.5 percent graduated in six years.
- ◆ Of those who needed Math remediation, 53.4 percent completed the requirement during their first year.
- ◆ Of those who needed and completed Math remediation during their first year, 51.1 percent graduated in six years, compared with 36.4 percent for those who did not complete the requirement during their first year.

Figure 4 (English)

- ◆ English remediation was required by 8.0 percent of new freshmen entering full-time in fall 2002.
- ◆ Of students who did not require English remediation, 67.2 percent graduated in six years.
- ◆ Of those who needed English remediation, 68.1 percent completed the requirement during their first year.
- ◆ Of those who needed and completed English remediation during their first year, 44.1 percent graduated in six years, compared with 31.5 percent for those who did not complete the requirement during their first year.

Figure 3

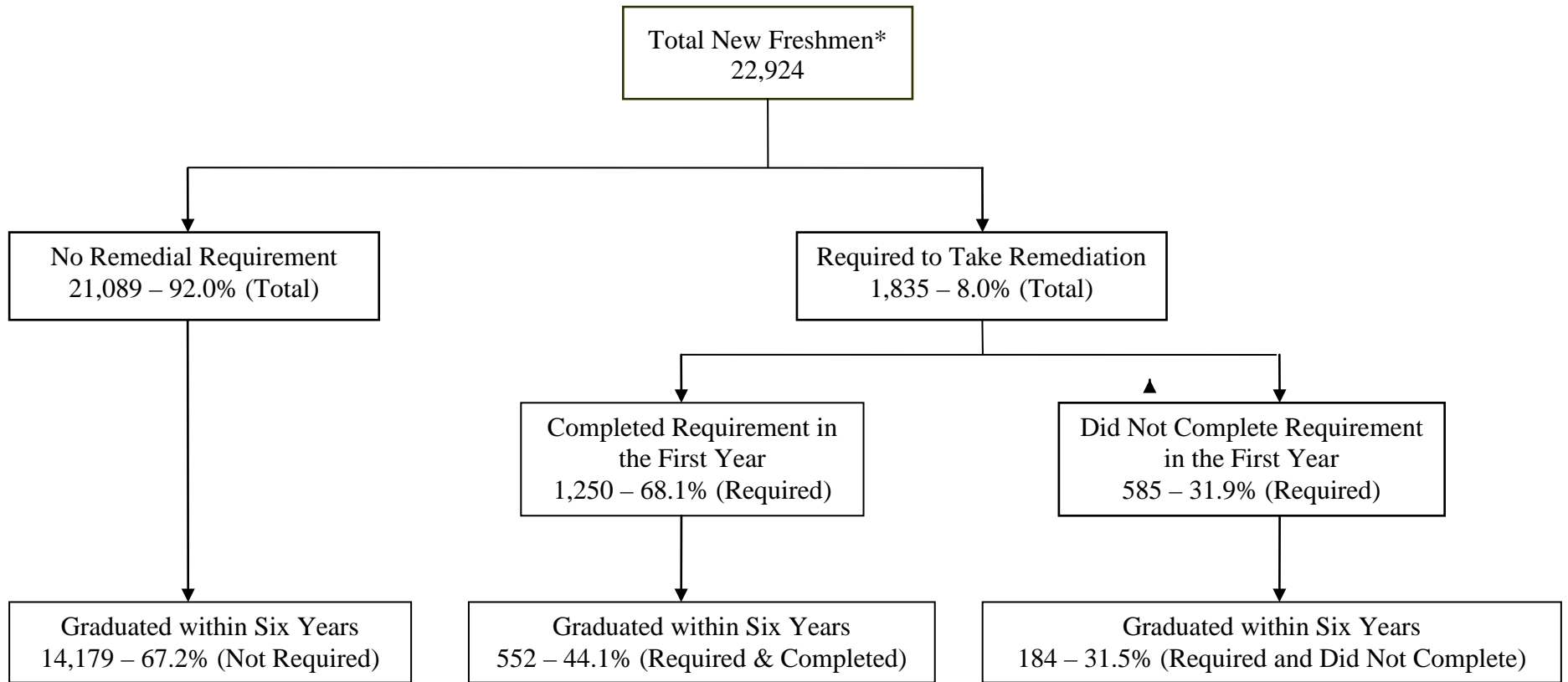
**Six Year Graduation Rate at Any UW Institution
for Full-Time New Freshmen Entering Fall 2002
by Completion of Math Remedial Requirement**



* UW Colleges were excluded.

Figure 4

**Six Year Graduation Rate at Any UW Institution
for Full-Time New Freshmen Entering Fall 2002
by Completion of English Remedial Requirement**



* UW Colleges were excluded.

Section VI: Efforts to Reduce Remediation and Promote Student Success

UW institutions are using a variety of tactics 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:

- ◆ Collaboration with high schools to align the mathematics curricula.

UW-Stout received a UW System Growth Agenda Grant to collaborate with instructors at Menomonie High School in an effort to better align curricula at the high school and college level. The goal of this partnership, which will begin in August 2009 and run through the 2009-10 academic year, is to better prepare high school students for success in college mathematics courses.

At UW-La Crosse, the *MathCAST: Collaboration and Alignment to Advance Student Learning in Mathematics project* was recently funded through a UW System Growth Agenda Grant. In order to advance system-wide initiatives, the *MathCAST* project brings together a regional partnership to ensure the preparation and retention of students in rigorous college mathematics courses through 9-14 curriculum alignment, the development of technology-enhanced content modules, and the implementation of a college readiness program that will serve as a vehicle for improving the mathematics achievement of *all* students, especially those from underserved populations.

- ◆ Intervention programs with pre-college populations.

Remediation prevention services provide intervention programs for infants to high school students designed to eradicate difficulties early enough to foster effective pre-collegiate preparation. The UW-Eau Claire Human Development Center, an interdisciplinary clinical program, offers low-cost assessment, intervention, and school consultation services for children and young adults. The Center helps clients with difficulties that include underachievement, developmental disabilities, learning disabilities, and poor reading skills, all of which have the potential to lead to the need for remedial education at the college level.

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

- ◆ Use of new delivery models for remedial courses.

In spring 2009, UW-Green Bay piloted a new delivery model for remedial mathematics. Instead of the standard 14 week, 3 hour/week, every-other-day class meeting schedule, the course was delivered in an intensive 7 week module in which the students met 5 days a week for either 55 or 80 minutes a day. The course utilized a pedagogical approach whereby content was delivered and practiced daily in the classroom setting. The textbook had a sophisticated online homework and learning support component, and an undergraduate teaching assistant was available to assist students in the classroom and outside the class, either in one-on-one or small group tutorial sessions. The pilot was very successful - 87% of the participants in the pilot section passed the course. Student satisfaction was also very

high. Based on the successful pilot, the program will expand in fall 2009 to include all sections of remedial mathematics.

At UW-Milwaukee, students who are required to take remedial mathematics courses may choose to take the traditional semester-long 090 and 095 classes or instead elect courses that are mastery-based, self-paced, and technology supported combinations of 090/095 and 095/105. Students who choose these options advance quickly – often through three class-levels of mathematics in one semester, and do so with grades of A and B.

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

UW-Parkside piloted two sections of Structured Learning Assistance (SLA) in ACSK 015: Elementary Algebra. These sections include an extra hour of workshop led by either mathematics professionals or senior mathematics students. The workshop leader attends all sessions of the class and leads a weekly workshop where students are able to review concepts, ask questions about the homework, and participate in quiz and test reviews.

UW-Platteville's Peer Assisted Learning Program (PAL) is based on the Supplemental Instruction Program used on many campuses. Students who have successfully completed a course participate in the course with the enrolled students, and offer alternative learning sessions outside the classroom. These sessions are in addition to the support offered by the instructors during office hours. The "PALs" offer tutoring, reviews for exams, and laboratory assistance at times when teaching staff are not available. It is not unusual for students to meet with the PALs during late afternoons, evenings, or on weekends.

UW-Whitewater plans to require additional interventions with students who need remedial coursework. Students will be required to enroll in a specific New Student Seminar section for their first semester and have a Career Inventory Program Assessment. These students will be assigned to an Academic Advisor in the Advising Center. They will not only be required to have their mandatory two meetings with their advisor but will be required to have an 8 week grade review. These students will have their grades checked in weeks 6-7 and grades will be reviewed in week eight with their advisor. This same procedure will be repeated in the second semester of attendance

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

UW-La Crosse's Academic Success Institute (ASI) provides a transitional bridge for students between high school and college. Students in the program are 1) a first generation college student (neither parent earned a bachelor's degree); 2) a member of a historically underserved group (multicultural student); or 3) have an economic disadvantage. Most of the students in ASI are required to successfully complete the summer program before entering as first year students at UWL in the fall semester. ASI students are enrolled in a remedial English course and take a Math workshop in the summer. The summer program extends into the freshman year with additional support for the students as they progress in their coursework.

- ◆ Development of a common set of learning outcomes and professional development for faculty teaching the courses.

UW Colleges English faculty have adopted a uniform set of composition learning outcomes for all composition courses including English 098. These learning outcomes are shared with all instructors and with all students. A workshop is planned for August to discuss implementation. The workshop is open to all English faculty and instructional academic staff members. The English faculty also hosted a Reaching At-Risk Students Workshop with over 100 UW System participants and have developed a web-based resource for instructors.

Each year, a UW Colleges-wide workshop is held, bringing developmental mathematics instructors, including faculty from the mathematics department, together to share and discuss pedagogical practices designed to increase student learning and motivation, use of technology in the classroom, and developing critical thinking and problem solving skills.

Appendix A

University of Wisconsin System Regent Policy Documents

(Source: <http://www.uwsa.edu/bor/policies/rpd/rpd4-8.htm>)

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 freshman 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

New Freshmen Needing and Completing Math Remediation in the First Year, by UW Institution Fall 2005 through Fall 2007

Institution	Fall 2005				Fall 2006				Fall 2007			
	# 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	63	1.0%	38	60.3%	40	0.7%	15	37.5%	42	0.7%	26	61.9%
UW-Milwaukee	1,251	28.8%	785	62.7%	1,290	31.5%	824	63.9%	1,771	38.5%	1,117	63.1%
UW-Eau Claire	197	9.5%	170	86.3%	181	8.9%	160	88.4%	111	5.5%	93	83.8%
UW-Green Bay	149	16.1%	102	68.5%	174	16.9%	134	77.0%	197	19.6%	148	75.1%
UW-La Crosse	63	3.6%	45	71.4%	70	4.0%	57	81.4%	81	4.6%	61	75.3%
UW-Oshkosh	163	10.0%	118	72.4%	169	9.6%	114	67.5%	627	35.6%	377	60.1%
UW-Parkside	458	52.2%	176	38.4%	517	57.0%	186	36.0%	531	55.8%	268	50.5%
UW-Platteville	575	46.1%	323	56.2%	619	43.0%	320	51.7%	595	38.5%	322	54.1%
UW-River Falls	125	10.3%	51	40.8%	147	11.3%	63	42.9%	141	11.0%	83	58.9%
UW-Stevens Point	141	9.2%	108	76.6%	166	10.1%	136	81.9%	152	9.4%	116	76.3%
UW-Stout	92	5.4%	64	69.6%	84	5.5%	56	66.7%	99	6.6%	79	79.8%
UW-Superior	140	40.5%	77	55.0%	114	36.5%	66	57.9%	124	35.4%	93	75.0%
UW-Whitewater	343	20.0%	296	86.3%	342	18.9%	281	82.2%	428	20.7%	347	81.1%
UW Colleges	1,270	30.8%	617	48.6%	1,464	35.6%	691	47.2%	1,626	38.8%	735	45.2%
TOTAL	5,030	17.0%	2,970	59.0%	5,377	18.3%	3,103	57.7%	6,525	21.3%	3,865	59.2%

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

**New Freshmen Needing and Completing English Remediation
in the First Year, by UW Institution
Fall 2005 through Fall 2007**

Institution	Fall 2005				Fall 2006				Fall 2007			
	# 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	0	0.0%	0	N/A	0	0.0%	0	N/A	0	0.0%	0	N/A
UW-Milwaukee	791	18.2%	621	78.5%	602	14.7%	491	81.6%	713	15.5%	585	82.0%
UW-Eau Claire	13	0.6%	12	92.3%	14	0.7%	13	92.9%	15	0.7%	12	80.0%
UW-Green Bay	61	6.6%	57	93.4%	87	8.5%	79	90.8%	83	8.3%	78	94.0%
UW-La Crosse	34	1.9%	19	55.9%	15	0.9%	6	40.0%	26	1.5%	4	15.4%
UW-Oshkosh	42	2.6%	23	54.8%	25	1.4%	15	60.0%	35	2.0%	23	65.7%
UW-Parkside	348	39.6%	248	71.3%	389	42.9%	282	72.5%	378	39.7%	260	68.8%
UW-Platteville	59	4.7%	41	69.5%	59	4.1%	37	62.7%	80	5.2%	56	70.0%
UW-River Falls	29	2.4%	24	82.8%	19	1.5%	13	68.4%	98	7.6%	84	85.7%
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	326	19.1%	254	77.9%	193	12.7%	154	79.8%	124	8.3%	96	77.4%
UW-Superior	79	22.8%	48	60.8%	54	17.3%	40	74.1%	68	19.4%	54	79.4%
UW-Whitewater	139	8.1%	132	95.0%	133	7.4%	133	100.0%	145	7.0%	143	98.6%
UW Colleges	395	9.6%	225	57.0%	301	7.3%	140	46.5%	297	7.1%	159	53.5%
TOTAL	2,316	7.8%	1,704	73.6%	1,891	6.4%	1,403	74.2%	2,062	6.7%	1,554	75.4%

NA = "Not Applicable" or "Not Available"

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.