

# UW-MADISON'S IN-STATE FRESHMAN RECRUITING PIPELINE

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## KEY FACTS ABOUT UW-MADISON'S RECRUITING PIPELINE

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1. Since 1999, the *number* of Wisconsin high school graduates increased by 8% and is projected to peak with the graduating class of 2008.
2. Approximately 1 in every 5 (21%) Wisconsin high school graduates is academically well-prepared for UW-Madison. This *proportion* has not changed since 1999.
3. Compared to non-minorities, a lower *proportion* of minority high school graduates are academically well-prepared for UW-Madison.
4. Despite static proportions of academic preparation, the increased number of Wisconsin's high school graduates resulted in an increased *number* of well-prepared graduates.
5. At the same time as the *number* of well-prepared high school graduates increased, UW-Madison experienced an increase in the *proportion* of well-prepared high school graduates who apply for admission (application rate) and in the *proportion* of admitted students who enroll (yield rate). These three factors combined to make admission to UW-Madison more competitive.
6. Application rates for well-prepared minority Wisconsin high school graduates currently exceed the application rates for well-prepared non-minority Wisconsin high school graduates.
7. Admission rates for well-prepared minority Wisconsin high school graduates currently exceed the admission rates for well-prepared non-minority Wisconsin high school graduates.
8. The *number* of minority Wisconsin high school graduates who are well-prepared for UW-Madison remains very small – approximately 600 per year compared to almost 14,000 White graduates.
9. Projections ten years into the future show that the *number* of high school graduates overall will decrease and that the graduating class in Wisconsin will be more ethnically diverse. The *number* of well-prepared Hispanic/Latino(a) graduates will grow but all other race/ethnic groups will experience decreases or steady numbers over the next ten years.

## IMPLICATIONS FOR DIVERSITY PLANNING

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As we plan for diversity initiatives, we should recognize the following:

1. Realistic plans must be based on the number and proportion of minorities who are well-prepared for UW-Madison rather than on the overall number of minorities in the graduating class.
2. Recent increases in the number of well-prepared minority high school graduates are due to increases in the overall number of minority high school graduates and NOT due to increases in the proportion of minority high school graduates who are academically well-prepared for UW-Madison.
3. Assuming current and persistent patterns of academic preparation in high school continue over the next ten years, the number of academically well-prepared minority high school graduates will increase, due entirely to increasing numbers of Hispanic/Latino(a) high school graduates.
4. Compared to current numbers, there will be fewer well-prepared African American and Asian graduates and steady numbers of American Indian graduates. It will be difficult to enroll more freshmen from these race/ethnic groups from the pool of Wisconsin high school graduates.
5. Well-prepared Wisconsin minority high school graduates already apply to UW-Madison and enroll at higher-than-average rates. We should not count on increasing this proportion further, particularly without competitive financial aid packages<sup>1</sup>.
6. We can meet some of our enrollment goals by supplementing our in-state pool of minority high school graduates with students from other states. Successful recruiting of non-residents requires financial aid (particularly scholarships and grants) that competes with offers from other institutions.
7. In the coming years, enrolling more minority students will rely more than ever on successful recruiting strategies and on providing timely incentives for choosing UW-Madison over other college options. We should ensure that our policies, practices and programs are coordinated, send common messages to prospective students, and are appropriately timed to maximize our competitive advantage.

## INTRODUCTION

The pool of recent Wisconsin high school graduates is the source of almost 60% of new UW-Madison freshmen annually<sup>2</sup>. Consequently, understanding the size and composition of the pool of high school graduates that are well-prepared for UW-Madison is the foundation of realistic and achievable goals for enrollment management and diversity.

This analysis updates a 2004 study of UW-Madison's recruitment pipeline<sup>3</sup>. We focus both on the number and proportion of Wisconsin high school graduates who are in the top quartile of their high school classes and have ACT scores above the Wisconsin state average of 22<sup>4</sup>. Because of the importance of diversity at UW-Madison and because our current diversity plan, Plan 2008, is in its final year, we focus on minority<sup>5</sup> high school graduates and compare benchmarks at each point in the recruiting pipeline for two analytic periods – 1999 and 2000 at the start of Plan 2008 and 2006-2007 at the end<sup>6</sup>.

Using the pipeline analogy is a common strategy for describing the pool of high school graduates and the sequencing of processes needed to enroll in college. Like an oil pipeline, the enrollment analogy reflects the steady supply stream (high school graduates) and an intended destination (UW-Madison). The segments in the enrollment pipeline consist of:

- Graduating from high school.
- Taking a college entrance exam (ACT or SAT).
- Being well-prepared for UW-Madison (top quartile in rank with ACT scores over 22).
- Applying to UW-Madison.
- Being admitted to UW-Madison.
- Enrolling at UW-Madison.

Like many pipelines, the enrollment pipeline has "leaks". These are points where high school graduates do not progress to the next segment in the pipeline. Understanding which points in the pipeline are leaky is the first step in setting goals for improvements. Table 1 shows the steps that high school graduates need to take in order to enroll at UW-Madison. The steps are illustrated as a current proportion of each 100 Wisconsin high school graduates. For each 100 Wisconsin high school graduates, five enroll at UW-Madison for the following fall term. For each 100 minority high school graduates, three enroll at UW-Madison the following fall.

**Table 1**  
**UW-Madison's Current Enrollment Pipeline**

<b>For Every 100 Wisconsin High School Graduates...</b>		
	All	Minority
Graduate from High School	100	100
Take the ACT or SAT	65	46
Be Well-prepared for UW-Madison	21	6
Apply to UW-Madison	9	5
Be Admitted to UW-Madison	7	4
Enroll at UW-Madison	5	3

\*for this analysis, well-prepared means that a high school graduate is in the top 25% of his/her high school class and scored above the WI state average of 22 on the ACT (or has an equivalent SAT score).

## I. WISCONSIN HIGH SCHOOL GRADUATES AND PREPARATION FOR COLLEGE

### A. Wisconsin High School Graduates (Table 2)

In order to evaluate the degree to which UW-Madison is serving the State of Wisconsin by providing access to high school graduates, it is important to understand the size and composition of Wisconsin's annual high school graduating class.

Wisconsin's annual high school graduating class consists of:

- around 69,000 total high school graduates, from both public and private high schools.
- around 10,500 minorities (15% of the total).
- around 4,500 African Americans (the largest minority group).
- around 800 American Indians (the smallest minority group).

### B. Academic Preparation for College (Table 2)

The proportion of graduates who take the ACT is an important indication of the number considering postsecondary education. Not all who take a college entrance exam will go on to college but few can enroll in a bachelors degree program without it.

Among Wisconsin high school graduates:

- about 65% take the ACT test each year.
- minorities take the ACT at lower rates than non-minorities.
- around 40% of African American, Hispanic/Latino(a), and American Indian graduates take the ACT compared to 68% of non-minorities.

**Table 2**  
**WI High School Graduates and ACT Testers**  
**2006-2007 Average**

	<b>Average Number of Graduates</b>	<b>Percentage Taking the ACT</b>
Total	69,146	65%
African American	4,552	43%
Hispanic/Latino(a)	2,774	40%
American Indian	833	38%
Asian American	2,355	62%
White/Other	58,632	68%

**Table 3**  
**Level of Preparation for UW-Madison**  
**2006-2007 Average**

	<b>Percentage of High School Graduates...</b>		
	<b>In Top 50%</b>	<b>and ACT Over 22</b>	<b>and in Top 25%</b>
Total	54%	28%	21%
African American	29%	3%	2%
Hispanic/Latino(a)	28%	10%	7%
American Indian	26%	9%	6%
Asian American	47%	17%	12%
White/Other	58%	32%	24%

**C. Academic Preparation for UW-Madison (Tables 3 and 4)**

Taking the ACT is a necessary, but not sufficient, condition for admission to UW-Madison. According to governance policy, admitted freshman applicants should be in the top half of their graduating classes. All but 3% of UW-Madison applicants exceed this minimum threshold, making admission to UW-Madison increasingly competitive.

The minimum threshold for admission -- being in the top 50% and taking the ACT or SAT -- is met by:

- 58% of non-minority graduates.
- fewer than 30% of American Indian, African American, and Hispanic/Latino(a) graduates.

The more realistic and stringent admission threshold -- scoring above average on the ACT and being in the top quartile of the graduating class -- is met by:

- 24% of non-minority graduates.
- 2% of African American graduates.

Although, the overall Wisconsin high school graduating class is 15% minority, only 4% of those well-prepared for UW-Madison are from minority groups.

Despite several pre-college interventions particularly for minorities, the proportion of Wisconsin high school graduates who are academically well-prepared for UW-Madison has remained around 21%.

**Table 4**  
**WI High School Graduates who are Well-Prepared for UW-Madison**

	<b>Percentage of High School Graduates Well-prepared for UW-Madison</b>	
	<b>1999-00</b>	<b>2006-07</b>
Total	22%	21%
African American	3%	2%
Hispanic/Latino(a)	7%	7%
American Indian	9%	6%
Asian American	17%	12%
White/Other	24%	24%

## II. ACADEMICALLY WELL-PREPARED WISCONSIN HIGH SCHOOL GRADUATES

The remainder of this analysis focuses on the pipeline of Wisconsin high school graduates who are well-prepared for UW-Madison – those in the top quartile of their high school classes with above average ACT scores (the right column of Tables 3 and 4).

### A. Well-prepared Wisconsin High School Graduates (Table 5)

The high school graduates who are well-prepared for college-level work at UW-Madison shape the annual pool of recruited students. The number of Wisconsin high school graduates in this pool has increased by about 300 since 1999.

This increase in the number of well-prepared high school graduates is due to increases in the overall number of Wisconsin high school graduates. Table 4 showed that the increase is NOT due to increases in the proportion of graduates who are academically well-prepared for UW-Madison.

All race/ethnic groups, except for American Indians, experienced an increase in the number of well-prepared high school graduates. On a percentage basis, the number of well-prepared Hispanic/Latino(a) high school graduates grew the most -- by 62%.

Still, the number of minority high school graduates in Wisconsin who are well-prepared for academic work at UW-Madison is very small -- around 600 graduates per year. These well-prepared graduates are heavily recruited by many universities and generally have multiple options for postsecondary education.

**Table 5**  
**Annual Number of Well-Prepared Wisconsin High School Graduates**

	Average		
	99-00	06-07	Change
Total	14,217	14,532	+315
African American	93	100	+7
Hispanic/Latino(a)	117	190	+73
American Indian	54	51	-3
Asian American	276	290	+14
White/Other	13,677	13,901	+224

### B. UW-Madison's Service Rate for Well-Prepared Wisconsin High School Graduates (Table 6)

The overall service rate is the proportion of high school graduates from the previous academic year who enroll the following fall. It is one of many measures of UW-Madison's service to the state of Wisconsin. The service rate calculation is a summary of the segments of the pipeline that are in between high school graduation and enrollment. Table 1 showed that UW-Madison's overall service rate is 5%.

$$\text{Service Rate} = \frac{\text{WI Resident Fall Term New Freshmen}}{\text{WI High School Graduates (prior academic year)}}$$

In this section, we explore UW-Madison's service rate for **well-prepared** Wisconsin high school graduates. This rate is defined as:

$$\text{Well-prepared Service Rate} = \frac{\text{Well-prepared WI Resident Fall Term New Freshmen}}{\text{Well-Prepared WI High School Graduates (prior academic year)}}$$

Compared to the overall service rate of 5%, UW-Madison is serving 22% of **well-prepared** Wisconsin high school graduates. This service rate has been consistent since at least 1999. More than one in five well-prepared Wisconsin high school graduates enrolls at UW-Madison after high school graduation.

At the start of Plan 2008, the service rate for well-prepared minority high school graduates was already higher than the service rate for well-prepared non-minority high school graduates. Since 1999, service rates for well-prepared minority graduates have increased even more – from a 6 percentage point increase for Hispanic/Latino(a) graduates to a 22 percentage point increase for African Americans.

Changes in the service rate can be caused by changes at many segments of the pipeline and the service rate alone does not point to a cause for observed changes. For example, a change in the service rate might be due to changes in the academic preparation of graduates, changes to the size and composition of the high school graduating class, changes in the rates of application and enrollment or a combination of multiple factors.

The next sections explore these factors in more detail so that we can understand the segments of the pipeline that contributed to the increase in service rates.

**Table 6**  
**Annual Service Rates**  
**For Well-Prepared Wisconsin High School Graduates**

	Average		
	99-00	06-07	Change
Total	22%	22%	0
African American	28%	50%	+22
Hispanic/Latino(a)	31%	37%	+6
American Indian	24%	40%	+16
Asian American	38%	49%	+11
White/Other	22%	21%	-1

**C. Application Rates to UW-Madison for Well-Prepared Wisconsin High School Graduates (Table 7)**

The proportion of well-prepared high school graduates applying to UW-Madison is one of several indicators of successful recruiting and the start of the process to shape the new freshman class.

Although UW-Madison's enrollment goal for resident new freshmen is relatively static, around 4,300 per year, the proportion of well-prepared Wisconsin high school graduates applying to UW-Madison (application rate) has increased from 38% in 1999 to 43% in 2007.

<b>Well-prepared</b>	=	<b>Well-Prepared WI Resident Freshman Applicants</b>
<b>Application Rate</b>		<b>Well-prepared WI High School Graduates (prior academic year)</b>

At the start of Plan 2008, well-prepared minority high school graduates were already applying to UW-Madison at higher rates than well-prepared non-minority graduates. Since 1999, the rate at which well-prepared minority high school graduates apply to UW-Madison has increased precipitously. Compared to a 5 percentage point increase in overall application rates, application rate increases for well-prepared minority high school graduates ranged from 13 percentage points for well-prepared Hispanic/Latino(a) high school graduates to 30 percentage points for well-prepared African American high school graduates.

The increase in service rates for well-prepared minority high school graduates is, as least in part, related to this increase in the proportion applying to UW-Madison. The overall increase in application rates along with increases in the size of the graduating class has greatly increased competition for freshman admission to UW-Madison.

**Table 7**  
**Average Application Rates to UW-Madison**  
**For Well-Prepared Wisconsin High School Graduates**

	Average		
	99-00	06-07	Change
Total	38%	43%	+5
African American	53%	83%	+30
Hispanic/Latino(a)	51%	64%	+13
American Indian	37%	64%	+24
Asian American	66%	87%	+21
White/Other	37%	42%	+5

**D. Admission Rates to UW-Madison for Well-Prepared Wisconsin High School Graduates (Tables 8 and 9)**

The proportion of applicants who are admitted (admission rate) is a function of 1) the likelihood that an admitted applicant will enroll (yield rate) and 2) the number of freshmen an institution is able to accommodate. Between 1999 and 2007, the number of applicants to UW-Madison increased whereas the number of freshman we can accommodate did not. For this reason, admission to UW-Madison became more competitive and the admission rate decreased. In 1999, 94% of well-prepared Wisconsin applicants were admitted. By 2007, the admission rate had decreased to 79% due to the increasing number of applicants.

Compared to the overall decrease in admission rates of 16 percentage points, admission rates for well-prepared minority high school graduates decreased less. Decreases for well-prepared minority high school graduates range from 4 percentage points for African Americans to 13 percentage points for American Indians (compared to a decrease of 16 percentage points for Whites).

**Table 8**  
**Average Admission Rates to UW-Madison**  
**For Well-Prepared Wisconsin High School Graduates**

	Average		
	99-00	06-07	Change
Total	94%	79%	-15
African American	96%	92%	-4
Hispanic/Latino(a)	100%	93%	-7
American Indian	100%	87%	-13
Asian American	92%	87%	-5
White/Other	94%	78%	-16

The decrease in admission rates between 1999 and 2007 is due to two different factors. In the case of non-minorities, the decrease in admission rates is because fewer applicants were admitted. For all minority groups, the decrease in admission rates is because the percentage increase in admits was lower than the percentage increase in applicants. The number of well-prepared minority high school graduates who were admitted increased between 1999 and 2007.

**Table 9**  
**Average Admission Rates to UW-Madison**  
**For Well-Prepared Wisconsin High School Graduates**

	Percent Change 1999-2007	
	Applicants	Admits
Total	+9%	-12%
African American	+54%	+20%
Hispanic/Latino(a)	+51%	+28%
American Indian	+45%	+26%
Asian American	+42%	+18%
White/Other	+5%	-16%

The increase in service rates for well-prepared minority high school graduates can be partially explained by increases to the number of applicants who are admitted.

**E. Yield Rates to UW-Madison for Well-Prepared Wisconsin High School Graduates (Table 10)**

Most college applicants apply to more than one institution and well-prepared high school graduates often have a choice of institutions to attend. The proportion of admits who enroll at UW-Madison (yield rate) shows how often an admitted applicant chooses UW-Madison over other college options. Since 1999, the overall yield rate for well-prepared admits increased by two percentage points, from 61% to 63%.

<b>Well-prepared Yield Rate</b>	=	<b>Well-Prepared WI Resident Enrolled New Freshmen</b>
		<b>Well-Prepared WI Resident Freshman Admits</b>

At the start of Plan 2008 most well-prepared minority admits, with the exception of African Americans, had yield rates equaling or exceeding those of well-prepared non-minority admits. Since 1999, yield rates for all groups have increased and the yield rates for all minority groups, including African Americans, now exceed the yield rates for non-minorities. The increase in service rates for well-prepared minority high school graduates is also explained by increases in the proportion of admits who enroll at UW-Madison.

**Table 10**  
**Average Yield Rates to UW-Madison**  
**For Well-Prepared Wisconsin High School Graduates**

	Average		
	99-00	06-07	Change
Total	61%	63%	+2
African American	55%	65%	+10
Hispanic/Latino(a)	62%	64%	+2
American Indian	64%	73%	+9
Asian American	63%	65%	+2
White/Other	62%	63%	+1

In summary, increases in service rates for well-prepared minority high school graduates since 1999 are a consequence of multiple factors including increases in:

- the number of high school graduates.
- the proportion applying to UW-Madison.
- the number admitted.
- the likelihood of enrolling once admitted.

### III. FUTURE TRENDS: IMPLICATIONS FOR ENROLLMENT MANAGEMENT AND DIVERSITY

In March 2008, the Applied Population Laboratory, part of UW-Extension, released projections of high school graduates in Wisconsin<sup>7</sup>. These projections show that the overall size of Wisconsin's graduating class will decrease by 8% from 2007 to 2017. Projections show that the racial composition of Wisconsin's graduating class will change substantially.

Changes to the overall size of the graduating class and its racial composition impact diversity planning. Plan 2008, our current plan, was conceived at a time of growth in the high school class. As a result, Plan 2008's goal of continual increases in the number of new minority students was technically possible.

We are entering a period where the assumptions on which Plan 2008 was based have changed. As the final year of Plan 2008 closes and future diversity goals are being conceived, we should carefully consider that:

- the overall size of the high school class will decrease.
- there will be decreases in the number of minority high school graduates from two of the four minority groups and steady numbers in a third group.
- the proportion of minority high school graduates who are academically well-prepared for UW-Madison has not changed since 1999 (see Table 4).

The following tables and charts show the projections of high school graduates to 2017 and the effect of these projections on the pool of well-prepared high school graduates<sup>8</sup>.

#### A. Projections of All High School Graduates (Table 11)

Over the next ten years, Wisconsin's high school graduating class is expected to change due to:

- a decrease in the number of African Americans from the current level of 4,500 per year to around 4,200.
- a slight decrease in the number of Asian Americans from around 2,400 to 2,300.
- a decrease in the number of White graduates to 87% of the current level – from around 59,000 to around 52,200.
- a relatively steady number of American Indians around 850 per year.
- dramatic and steady growth in the number of Hispanic/Latino(a)s each year from around 2,800 per year to more than 5,800.

Because the Wisconsin Department of Public Instruction does not differentiate Southeast Asians from other Asians, we cannot project how much of the change in Asian graduates will be in the Asians targeted by Plan 2008 (see Note 5 for more information).

**Table 11  
Projections of WI High School Graduates  
Shown as a Percentage of 2007 Level**

	African American	Hispanic/Latino(a)	American Indian	Asian American	White/Other
2007	4,491	2,782	827	2,379	58,839
2008	118	116	108	111	96
2009	102	113	106	107	94
2010	101	121	106	99	91
2011	102	134	104	102	89
2012	100	139	100	99	88
2013	94	154	91	98	87
2014	93	164	94	98	87
2015	92	176	91	94	88
2016	93	191	97	92	88
2017	93	209	103	95	89

#### B. Projections of High School Graduates who are Well-Prepared for UW-Madison (Table 12)

The number of Wisconsin high school graduates who will be well-prepared for UW-Madison can be estimated by multiplying the projected number of high school graduates by the current proportion of graduates who are well-prepared for UW-Madison.

Projection of Well-prepared High School Graduates	=	High School Graduates	×	Current proportion of graduates who are well-prepared for UW-Madison
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Table 4 showed that the proportion of Wisconsin high school graduates who are academically well-prepared for UW-Madison has not changed since 1999. Given the lack of change in preparation over the past ten years, it is reasonable to use current levels of preparation to project into the future.

Based on this projection methodology, over the next ten years, the number of well-prepared Wisconsin high school graduates will:

- decrease by 8% overall, from around 14,500 to 13,300.
- decrease by 16% for African Americans, from 100 to 84.
- more than double for Hispanic/Latino(a)s. However, even after doubling, the number of well-prepared Hispanic/Latino(a) high school graduates will only be around 400 per year.
- remain similar to current levels for American Indians and Asians.

Driven entirely by growth in Hispanic/Latino(a) graduates, the number of well-prepared Wisconsin minority high school graduates is projected to grow from 630 in 2007 to more than 800 in 2017.

**Table 12**  
**Projections of WI High School Graduates who are Well-prepared for UW-Madison**

	African American	Hispanic/Latino(a)	American Indian	Asian American	White/Other
2007	100	190	51	290	13,901
2008	106	226	54	318	13,859
2009	92	220	53	307	13,642
2010	91	237	53	284	13,286
2011	92	261	52	292	12,970
2012	90	271	50	284	12,575
2013	85	300	46	281	12,547
2014	84	319	47	281	12,374
2015	83	344	46	270	12,402
2016	84	373	48	264	12,451
2017	84	407	51	273	12,517

There are several implications for diversity planning that emerge from these projections. First, we should not expect to increase the number of Wisconsin minority freshmen at UW-Madison in each racial group. Overall, the number of well-prepared minority high school graduates will increase but the increase will be solely in the group of Hispanic/Latino(a) graduates.

Second, we should not count on increasing the number of Wisconsin minority freshmen by getting more to apply or more admitted applicants to enroll. Wisconsin minority

graduates already apply, are admitted, and enroll at above-average rates. Although we do not know how much further these rates can be increased, it would be unwise to plan for increases. Furthermore, any future increases in application and/or yield rates for minority high school graduates will first offset the decline in well-prepared graduates rather than increase the number of enrolled freshmen. It will take a substantial increase in the application or yield rate to offset the expected decrease in high school graduates in the non-Hispanic groups.

Third, the degree to which the projected increase in Hispanic/Latino(a) graduates translates to new UW-Madison freshmen depends on the degree to which these graduates have the necessary documentation to be considered Wisconsin residents for tuition purposes. If these students (despite the fact that they graduated from high school in Wisconsin) do not meet the statutory requirements to qualify for resident tuition (a problem disproportionately affecting Hispanics in the United States<sup>9</sup>), their chances of enrolling decrease.

These projections are predicated on the assumption that the proportion of Wisconsin high school graduates who are academically well-prepared for UW-Madison will not change much in the next ten years. Given that the “well-prepared” proportion has not changed over the past ten years, we find no basis for expecting a change in the near future either. Of course, should these longstanding preparation patterns change (in either direction), these predictions will be less accurate.

Finally, increases to the diversity of the freshman class could be realized by enrolling more minority graduates from other states. However, well-prepared minority students from other states will have an in-state option available to them likely with lower tuition than our non-resident tuition rate (as well as possible offers from other institutions). Attracting these students to UW-Madison requires non-resident fee remissions and financial aid -- specifically scholarships and grants that do not have to be repaid -- that are offered early enough in the college selection process to influence decisions.

## SOURCES AND NOTES

**High School Graduates.** The number of Wisconsin public high school graduates, by race/ethnicity, comes from the Wisconsin Department of Public Instruction's Wisconsin Information Network for Successful Schools (WINSS, [www.dpi.state.wi.us/sig/index.html](http://www.dpi.state.wi.us/sig/index.html)). The number of Wisconsin private high school graduates, not available by race/ethnicity, is from DPI's PI-1207 Private School Report.

This analysis is complicated by the fact that the race/ethnicity of private high school graduates, approximately 5,000 per year, is not reported to DPI. Because we are interested in the total pool of graduates who are well-prepared for UW-Madison (not just those from public high schools) by race/ethnicity and because later segments of the pipeline (such as ACT testing and applicants to UW-Madison) do not distinguish between public and private high school graduates, we have estimated the race/ethnicity of private high schools in following manner: the number of private high school graduates has been added to the number of public high school graduates, by race/ethnicity, based on the proportion of public school graduates of that race/ethnicity. For example, if 7% of public high school graduates are African American, we are estimating that 7% of private high school graduates will also be African American. Therefore, the number of African Americans in this analysis would be the total number of African American graduates from public high schools PLUS 7% of the private high school graduates. In our previous analysis of this topic (see note 1) we did not estimate the race/ethnicity of private high school graduates in this manner.

**ACT Test Information.** Information about ACT testing comes from ACT Inc. High school rank quartile is self-reported and reflects rank at the time of ACT testing. For graduates who took the ACT multiple times, the highest rank quartile and the highest ACT composite score are used in this analysis, even if they did not occur on the same testing administration.

**UW-Madison Applicants, Admits and Enrolled New Freshmen.** Information about applicants and enrolled new freshmen is from UW-Madison's student records, specifically the STDNT\_UGRD\_APPLICANT and FROZEN\_ENROLLMENT\_DEMO tables in the InfoAccess data warehouse.

**High School Rank Percentile.** Our definition of well-prepared requires knowing high school rank at each segment in the pipeline. In our previous analysis of this topic, students without high school rank were assumed to be in the bottom half of the class and were therefore not

part of the analysis. We still believe this was a reasonable assumption at the time because the few students not reporting rank had low ACT scores and we had few WI resident applicants without high school rank.

Over the past decade, the number of high schools in Wisconsin that do not rank their students has increased substantially. Thirteen percent (13%) of ACT testers and 30% of UW-Madison applicants do not have high school rank. Furthermore, the proportions vary quite a bit by race – 32% of African American applicants are without a rank compared to 15% of White applicants. In addition, the likelihood that a student without rank has a low ACT score has decreased since 1999 and the likelihood varies by race. For example, 84% of White applicants without rank now have ACT scores over 22 compared to 28% of African American applicants. Because the assumptions that led us to ignore the small number of students without rank in our previous analysis are no longer valid, we have estimated a high school rank, based on the high school rank of those with rank and ACT score, for the group of students without rank. For example, 71% of American Indians with high school rank and with ACT scores over 22 are in the top quartile of their classes. We then estimate that 71% of the American Indians without high school rank will be in the top quartile.

<sup>1</sup> See [www.apa.wisc.edu/admissions/Fall\\_2005\\_NonEnrolling\\_Admits.pdf](http://www.apa.wisc.edu/admissions/Fall_2005_NonEnrolling_Admits.pdf). This analysis of UW-Madison admits who did not enroll shows that minorities ARE enrolled in college, just not necessarily at UW-Madison. They are mainly at institutions close to their homes or at institutions with higher tuition than UW-Madison suggesting that financial aid was a factor in their enrollment decisions.

<sup>2</sup> Other sources of new freshmen include students enrolling under the MN reciprocity agreement, students from other states and countries, and students from Wisconsin who are not recent high school graduates.

<sup>3</sup> See [www.apa.wisc.edu/admissions\\_frosh.html](http://www.apa.wisc.edu/admissions_frosh.html)

<sup>4</sup> **Defining well-prepared.** There is no single definitive definition of what it means to be well-prepared for UW-Madison. The “average” freshman at UW-Madison is in the top 10% of his/her high school class and has an ACT score of 28. The holistic admissions process does not have a predetermined lower threshold for scores. Governance policy does state that freshmen should be in the top half of their high school class in rank percentile. Most people agree that UW-Madison attracts “above average” students. Therefore, our decision is to use the statewide average ACT score of 22 as the threshold for “well-prepared”. In examining the pipeline of well-prepared students, we are limited in some areas by the

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data that is available. At the time of ACT testing, students are asked for their high school rank in quartiles so our options are either to set the well-prepared rank threshold at either the 50% or 75% level. Because our own research shows that a student's GPA (used to determine rank) is the single most predictive variable in success at UW-Madison (GPA and retention) and because almost all enrolled students are in the top quartile, we decided to use the 75% benchmark. This is still a generous definition of well-prepared as most freshmen at UW-Madison rank higher in their graduating classes and have higher ACT scores.

<sup>5</sup> **Minorities and Targeted Minorities.** Plan 2008 targets specific racial groups that have historically been underrepresented and disadvantaged in the higher education pipeline. These groups are African Americans, Hispanic/Latino(a)s, American Indians, and **Southeast Asians**. Southeast Asians are the group of Asians, and their descendents, who came to the United States after the end of the Vietnam War from Laos, Cambodia, Vietnam, and Thailand. This group is defined in WI Statute and targeted for financial aid and other services. These four groups are commonly referred to as "targeted minorities". In this analysis we use the term "minority". The distinction between targeted minorities and all minorities is the inclusion of all Asians, not just the group from Southeast Asia. Neither the WI Department of Public Instruction (DPI) nor ACT separates the Southeast Asians from the overall Asian group. Therefore, an analysis of the pipeline of targeted minorities is not currently possible.

<sup>6</sup> **Groupings of Graduating Classes.** For this analysis, two graduating classes have been grouped together. This grouping minimizes the influence of normal year-to-year fluctuations in the number of and racial composition of high school graduates. The groupings include 1999 and 2000 together and 2006 and 2007 together. The earlier years represent the first years of Plan 2008. The later years represent the end of the Plan 2008 and are the most recent years available for both DPI and ACT.

<sup>7</sup> See [www.uwsa.edu/opar/reports/projections/](http://www.uwsa.edu/opar/reports/projections/) These projections are similar to the Western Interstate Commission for Higher Education's (WICHE) projections that we used for the previous analysis of this topic (see [www.wiche.edu](http://www.wiche.edu)). The advantage of using the Applied Population Laboratory's (APL) projections is that they use more recent data, resulting in what we believe is a more accurate projection. The APL projections also include breakouts by Wisconsin region whereas the WICHE projections are only at the state level. Although these regional projections are not used in this analysis, they may be of interest to others analyzing enrollment

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pipelines at a regional level. APL's projections use the same methodology as WICHE's projections and the only difference between them is the updated data.

<sup>8</sup> **Projections of Well-prepared Graduates.** These projections apply the proportion of graduates who are well-prepared for UW-Madison (Table 3) to APL's projections of high school graduates. The race/ethnicity of private high school graduates is estimated based on the methodology described in the "High School Graduate" note.

<sup>9</sup> For a recent and comprehensive analysis of this topic, see [www.aft.org/pubs-reports/american\\_academic/issues/january07/Frum.pdf](http://www.aft.org/pubs-reports/american_academic/issues/january07/Frum.pdf)