

## **Enrollment of Top Wisconsin High School Graduates at UW-Madison: 2011-2015**

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Interest in ensuring that top high school graduates in Wisconsin enroll at UW-Madison prompted this analysis of the statewide population of high school graduates and their application, admission, and enrollment patterns at the state flagship institution.

We use the statewide ACT composite score distribution for high school graduates as the starting point. Although high ACT scores alone are not sufficient evidence of academic preparation for UW-Madison and not all Wisconsin high school graduates take the ACT test, it is the most comprehensive and quantitative measure of academic preparation available on a statewide basis.

Because submission of an ACT or SAT score is required for admission to all UW institutions and almost all applicants to UW-Madison from Wisconsin have an ACT score<sup>1</sup>, the population of Wisconsin high school graduates who took the ACT defines the population of prospective new freshman.

This analysis is concerned with the enrollment of the top Wisconsin students. For the purposes of this analysis, we operationalize “top Wisconsin students” to be Wisconsin high school graduates with ACT composite scores of 30 or higher (out of a possible 36). This group represents the top 8% of Wisconsin high school graduates based on their ACT scores for the last five years (2011-2015). Their test scores are more than one standard deviation above the statewide average.

### **Summary of Findings:**

1. Wisconsin high school graduates with ACT scores of 30 or higher represent the top 8% of the Wisconsin high school graduates. There are around 3,700 of these graduates annually.
2. Almost two thirds (62%) of these high ACT-scoring graduates already apply to UW-Madison. However, 38% of the high ACT-scoring Wisconsin high school graduates, around 1,400 graduates per year, do not apply to UW-Madison. Enrolling a higher number of high ACT-scoring Wisconsin high school graduates will necessitate successful recruiting of these students who are not currently applying as well as tools to compete with the incentives that are attracting them to other institutions at the time they are making college decisions.
3. High ACT-scoring applicants who apply to UW-Madison are almost all admitted (91%). Admitting more of these students is not a strategy that will increase their enrollments at UW-Madison.
4. High ACT-scoring admits from Wisconsin high schools are less likely to enroll at UW-Madison (57%) than other admits (67%) from Wisconsin high schools. These applicants are recruited nationally and typically have multiple enrollment options to consider.
5. High ACT-scoring admits from different parts of Wisconsin have different yield rates to UW-Madison. In particular a large number of high ACT-scoring admits come from the Waukesha, Milwaukee, Racine, and Kenosha areas in southeastern Wisconsin. Admits from this area have lower-than-average yield rates. The largest gains in enrollments of high ACT-scoring admits could be made by improving the yield of students from these areas.

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<sup>1</sup> University of Wisconsin System Freshman Admission Policy (Regent Policy Document 7-3) requires applicants to submit an ACT or SAT test score in order to be considered for admission (Part I.C). The same policy (Part II.B) prohibits these scores from being the sole criteria on which an admission decision is made.

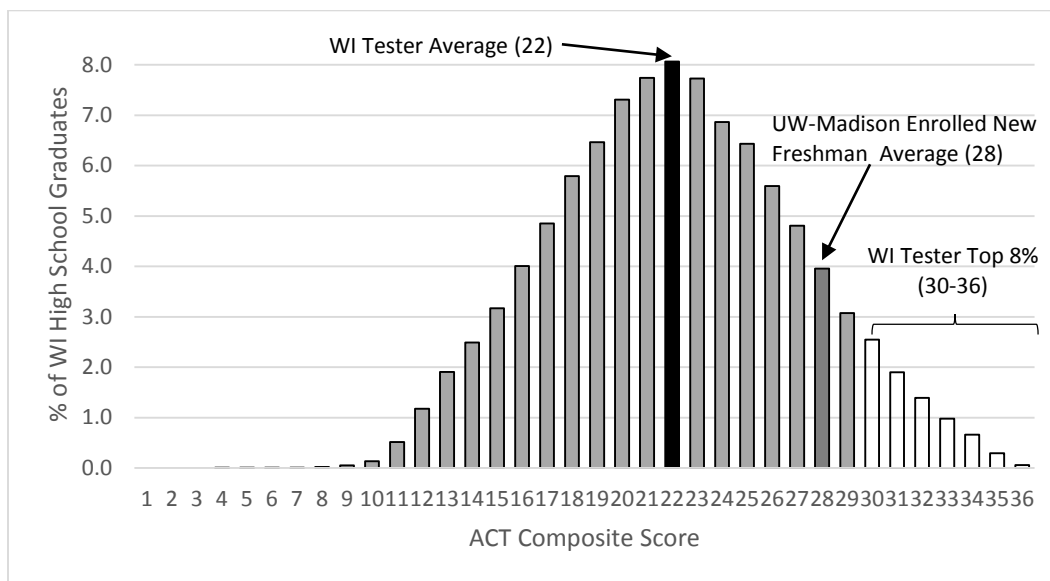
6. Many of the high ACT-scoring Wisconsin high school graduates who do not enroll at UW-Madison enroll at private institutions with higher published tuition and fee rates. Recruiting more of these students to apply to UW-Madison or successfully getting more of them to enroll once admitted will require competing with the incentives making these other institutions more attractive.
7. The high ACT-scoring admits who enroll at UW-Madison and those who do not have similar distributions of intended majors. Nineteen percent intend to study Engineering, the largest major area of interest to high ACT-scoring admits.

**Wisconsin High School Graduates and the ACT Test**

Each year almost 47,000 Wisconsin high school graduates take the ACT<sup>2</sup>. The average ACT composite score of Wisconsin test takers is 22 (out of a possible 36). The average ACT composite score of new freshmen enrolled at UW-Madison is 28, more than one standard deviation above the statewide mean composite score (Figure 1).

Annually, there are 3,700 Wisconsin high school graduates with ACT composite scores of 30 and higher compared to more than 43,000 Wisconsin high school graduates with scores of 29 and below. These top students are recruited by colleges and universities nationally and typically have multiple enrollment options to consider.

**Figure 1: % Distribution of ACT Scores of Wisconsin High School Graduates: 2011-2015 Average**



<sup>2</sup> ACT State Profile (<https://www.act.org/newsroom/data/2014/pdf/profile/Wisconsin.pdf>)

## **Application, Admission, and Yield Rates of Wisconsin High School Graduates**

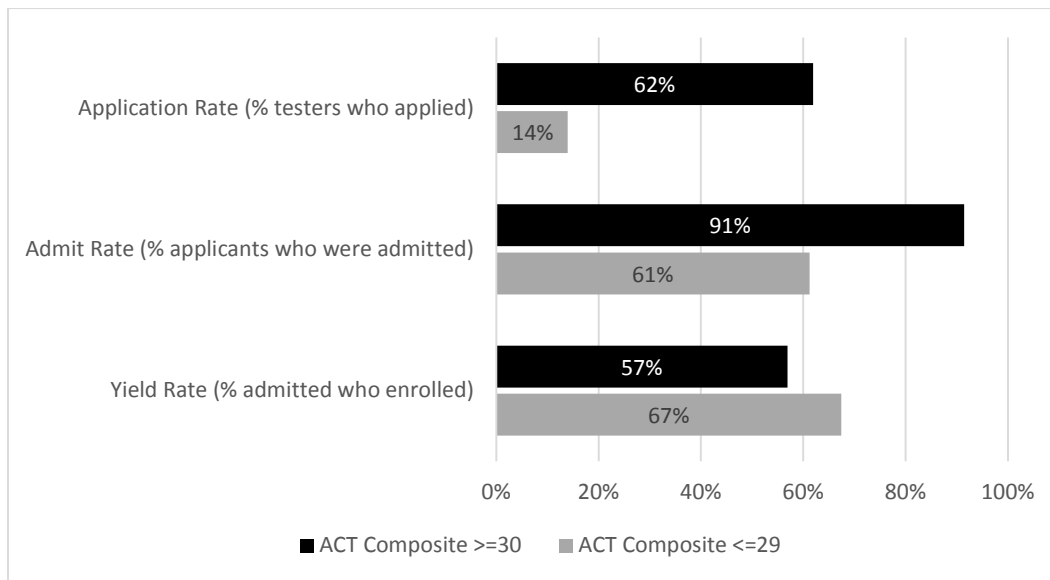
High ACT-scoring Wisconsin high school graduates are much more likely to apply to UW-Madison than graduates with lower ACT scores (Figure 2). On average, 62% of Wisconsin high school graduates with ACT scores of 30 or higher apply to UW-Madison compared to 14% of graduates with lower scores.

Although high ACT-scoring Wisconsin high school graduates are much more likely than other graduates to apply to UW-Madison, 38% of these graduates (approximately 1400 graduates per year) do not apply to UW-Madison. Increasing the number of high ACT-scoring Wisconsin high school graduates at UW-Madison will have to include strategies to entice these currently non-applying Wisconsin high school graduates to consider UW-Madison.

High ACT-scoring applicants from Wisconsin are more likely to be admitted compared to other applicants from Wisconsin. Ninety-one percent (91%) of high ACT-scoring applicants from Wisconsin are admitted compared to 61% of lower ACT-scoring applicants from Wisconsin<sup>3</sup>.

Once admitted, high ACT-scoring admits from Wisconsin are less likely than other admits from Wisconsin to enroll at UW-Madison. Slightly more than half (57%) of high ACT-scoring admits from Wisconsin enroll at UW-Madison compared to more than two thirds of other admits from Wisconsin (67%).

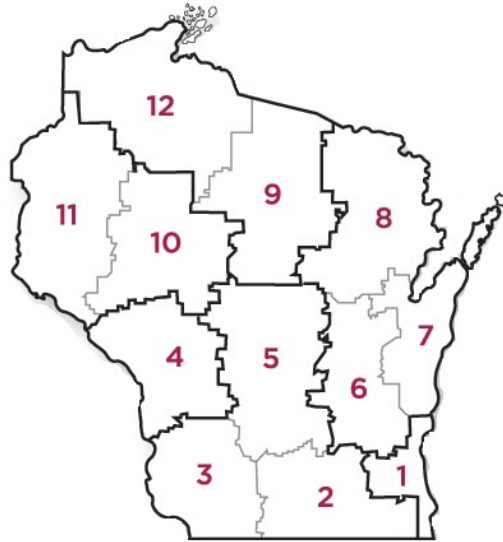
**Figure 2: Comparison of Application, Admission, and Yield Rates of Wisconsin High School Graduates**



<sup>3</sup> Applicants who are not admitted may have been explicitly denied admission based on their academic record or may not have been able to be evaluated for admission due to missing materials or an otherwise incomplete application.

We examined the distribution of applicants and enrolled new freshmen from Wisconsin high schools by grouping high schools into their Cooperative Educational Service Areas (CESA). These are broad geographical groupings used by the Wisconsin Department of Public Instruction for providing services to school districts (Figure 3).

**Figure 3: Wisconsin Cooperative Educational Service Areas for Wisconsin School Districts**



Overall, 26% of UW-Madison applicants have ACT scores of 30 and above. The percentages of applicants by CESA with ACT scores of 30 and above ranges from 28% in CESA 1 (Milwaukee, Waukesha, Racine, Kenosha) to 14% in CESA 8 in far northeast Wisconsin (Figure 4). The overall average is being driven by the two largest sources of applicants to UW-Madison (and also the largest source of Wisconsin high school graduates). Increasing the number of applicants with high ACT scores will require increasing the number from the Milwaukee and Madison areas, areas that already have relatively high percentages of applicants with high ACT scores.

Improving the yield of admits with high ACT scores is another way to increase their numbers at UW-Madison. Overall, 57% of Wisconsin admits with high ACT scores ( $\geq 30$ ) enroll at UW-Madison. Yield rates for high ACT scorers range from a low of 51% for admits from CESA 4 high schools (La Crosse area) to a high of 70% from CESA 5 high schools (Stevens Point area). Although the yield rate for CESA 1 high school graduates is only 1.5 percentage points lower than the state average, the fact that it is the largest source of applicants means that the largest gains can be made by improvements in the yield of graduates from the Milwaukee and Waukesha areas.

**Figure 4: Applicants and Yield Rates by High School CESA: 2011-2015**

CESA	Cities/Areas in CESA	Applicants from Wisconsin High Schools (Annual Average)		
		Number of Applicants	% applicants with ACT Scores $\geq 30$	Yield rate of admits with ACT Scores $\geq 30$
1	Milwaukee Area, Kenosha, Racine, Waukesha	3242	28.1	55.6
2	Madison Area, Whitewater, Janesville, Beloit, Lake Geneva	2053	26.9	57.5
3	Platteville, Mineral Point, Lancaster	135	19.8	66.2
4	La Crosse, Tomah, Black River Falls	253	20.6	50.8
5	Baraboo, Columbus, Stevens Point, Wisconsin Rapids	386	22.4	69.5
6	Beaver Dam, Appleton, Oshkosh, West Bend	905	27.0	58.2
7	Green Bay, Door County, Sheboygan	735	24.1	59.4
8	Marinette, Menomonie, Florence, Crandon	106	14.3	52.8
9	Wausau, Rhinelander, Minoqua	256	22.4	61.0
10	Eau Claire, Chippewa Falls, Abbotsford	243	25.8	51.2
11	River Falls, Saint Croix Falls, Rice Lake	240	25.8	52.9
12	Superior, Ashland, Bayfield, Park Falls	72	16.9	48.3
Total		8627	26.2	57.1

**Where UW-Madison Admits from Wisconsin High Schools Enroll**

The National Students Clearinghouse (NSC) is a powerful tool for tracking student enrollment nationally. Using the NSC’s Student Tracker tool allows us to determine where admitted applicants enrolled, as long as they enrolled at an institution that participates in the National Student Clearinghouse. Searching for admits who did not enroll at UW-Madison yields enrollment records for 93% of these admits<sup>4</sup>.

For high ACT-scoring admits from Wisconsin, 57% enrolled at UW-Madison followed by the University of Minnesota-Twin Cities (6% of admits). These high ACT-scoring admits enrolled at 160 other institutions, none accounting for more than 2% of admits.

<sup>4</sup> Enrollment records will not be located for students who enrolled at an institution that does not participate in the National Student Clearinghouse, at an institution outside of the United States, or if they have a hold on their records preventing the release of their information. Students who are not enrolled anywhere will not have enrollment records either. However, given that we are searching for records of students who were admitted to UW-Madison there are indications that these students were intending to attend college.

For lower ACT-scoring admits, almost 70% enrolled at UW-Madison. The rest enrolled at 247 different institutions. As with the higher ACT-scoring admits, the next most common institution was the University of Minnesota-Twin Cities which enrolled 4% of UW-Madison admits with lower ACT scores. Compared to high-ACT scoring admits, other UW institutions are much more likely to be where lower ACT-scoring admits from Wisconsin enroll.

Seven of the top 15 enrolling institutions for high ACT-scoring admits from Wisconsin high schools are in Wisconsin compared to 14 of the 15 top enrolling institutions for lower ACT-scoring admits from Wisconsin high schools. This is an indication that the top ACT-scoring admits have multiple enrollment options, are mobile and willing to leave their home state, and are either able to pay the higher tuition rates at many of these other institutions (or have tuition reciprocity) or are receiving grants and scholarships at these institutions.

**Figure 5: Top 15 Enrolling Institutions of UW-Madison Admits from Wisconsin High Schools**

<b>UW-Madison Admits with ACT Scores <math>\geq</math> 30</b>		<b>UW-Madison Admits with ACT Scores <math>\leq</math> 29</b>	
<b>Enrolling Institution</b>	<b>% of Admits</b>	<b>Enrolling Institution</b>	<b>% of Admits</b>
<b>UW-Madison</b>	<b>57.0%</b>	<b>UW-Madison</b>	<b>69.8%</b>
University of Minnesota-Twin Cities	6.4%	University of Minnesota-Twin Cities	3.8%
Marquette University	2.3%	UW-La Crosse	3.0%
UW-La Crosse	1.5%	Marquette University	2.3%
Northwestern University	1.5%	UW-Milwaukee	1.2%
Washington University	0.9%	UW-Eau Claire	1.1%
Milwaukee School of Engineering	0.8%	UW-Whitewater	0.7%
Vanderbilt University	0.8%	UW-Platteville	0.7%
Macalester College	0.7%	UW-Oshkosh	0.6%
UW-Milwaukee	0.7%	Carroll University	0.6%
St. Norbert College	0.7%	Milwaukee School of Engineering	0.5%
Saint Louis University	0.7%	St. Norbert College	0.5%
Ohio State University	0.6%	UW-Stevens Point	0.5%
Boston College	0.6%	Edgewood College	0.4%
UW-Eau Claire	0.5%	Madison College	0.3%

### **Intended Majors of Admits from Wisconsin High Schools**

We examined the intended majors of UW-Madison admits from Wisconsin who enrolled at UW-Madison and those who did not by broad area<sup>5</sup>. This comparison does not offer much insight into the reasons why some admits enrolled and other did not (See Appendix 1 for details).

The biggest difference in distributions of intended majors for admits who enrolled and those who did not is the percentage of admits who did not indicate any intended major at the time of application. Around 33% of admits who enrolled at UW-Madison indicated they were undecided about their majors compared to 28% of admits who did not enroll at UW-Madison. These differences were consistent for both high ACT-scoring admits and those with lower scores. The almost one third of UW-Madison applicants who do not indicate any intended major at the time of application makes any analysis of intended majors difficult.

After “undecided”, the next largest percentage of admits indicated intended majors in Engineering. Nineteen percent (19%) of admits intended Engineering majors compared to 12% of lower ACT-scoring admits. The fact that a relatively high percentage of high ACT-scoring admits from Wisconsin who did not enroll at UW-Madison indicated intentions to study Engineering suggests that increasing enrollments of these students at UW-Madison will increase enrollments in the College of Engineering.

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<sup>5</sup> For the purposes of standardization in federal reporting and peer comparisons, each major is assigned a Classification of Instruction (CIP) code using a taxonomy established and maintained by the U.S. Department of Education. The first two (of six) digits of the CIP code are known as the CIP Area and reflect broad groupings of similar majors.

**Appendix 1: Distribution of Intended Major of UW-Madison Admits from Wisconsin, 2011-2015  
By CIP Code Area**

CIP Area	CIP Area Description	Admits Not Enrolling		Admits who Enrolled	
		ACT <= 29	ACT >= 30	ACT <= 29	ACT >= 30
01	Agriculture	2.0%	0.7%	2.2%	0.9%
03	Natural Resources/Conservation	0.5%	0.6%	0.6%	0.3%
04	Architecture	0.1%	0.1%	0.1%	0.0%
05	Area Studies	0.1%	0.0%	0.1%	0.1%
09	Communication/Journalism	1.9%	1.6%	1.5%	1.1%
11	Computer/Information Sciences	0.8%	2.0%	1.0%	2.6%
13	Education	1.9%	0.4%	1.2%	0.3%
14	Engineering	10.8%	18.9%	11.9%	18.7%
16	Foreign Languages/Literature	0.8%	1.1%	0.7%	0.6%
19	Family/Consumer Sciences	0.2%	0.2%	0.3%	0.0%
22	Legal Studies	0.6%	0.5%	0.8%	0.4%
23	English Language/Literature	0.6%	1.2%	0.7%	0.7%
26	Biological Sciences	13.9%	15.8%	13.6%	14.2%
27	Mathematics/Statistics	0.7%	1.8%	0.7%	1.5%
30	Interdisciplinary Studies	1.3%	1.6%	1.0%	1.0%
31	Parks/Recreation/Fitness	3.3%	1.1%	2.5%	0.7%
38	Philosophy/Religious Studies	0.1%	0.1%	0.1%	0.1%
40	Physical Sciences	1.9%	4.7%	2.4%	3.4%
42	Psychology	3.2%	1.7%	3.1%	2.3%
44	Public Admin./Social Services	0.4%	0.1%	0.3%	0.1%
45	Social Sciences	2.3%	3.3%	1.9%	2.2%
50	Visual/Performing Arts	2.6%	2.0%	1.2%	0.8%
51	Health Professions	8.2%	2.5%	6.2%	3.0%
52	Business	12.9%	9.7%	13.4%	11.4%
54	History	0.7%	0.4%	0.4%	0.5%
---	Undecided/No Intended Major	28.5%	27.9%	32.0%	33.2%
<b>Total Admits (2011-2015)</b>		<b>5973</b>	<b>4444</b>	<b>12461</b>	<b>5913</b>

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