

ACADEMIC ENHANCEMENT EXPERIENCES FOR NEW FRESHMEN AT UW-MADISON

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INTRODUCTION

This analysis examines participation rates for new freshmen in activities that are related to UW-Madison's stated goals for new students¹. It also measures participation in activities that contribute to defining *The Wisconsin Experience*² as measured in Academic Planning and Analysis' annual report about the "enhancement activities" of graduating seniors³.

In spring 2007 the Office of New Student Programs' (ONSP) advisory board identified activities that operationalize some of the goals for new students (termed "ONSP-specified" here). This analysis for the fall 2006 first-year class will give ONSP and its advisory board a baseline against which to measure future participation rates as existing activities expand and new ones are developed.

For the past four years, Academic Planning and Analysis (APA) has measured participation rates for graduating seniors in certain activities. Many of these activities are included under the emerging *Wisconsin Experience* umbrella. Not all of these experiences are relevant to new freshmen but measuring the level of participation in the activities that are relevant will give us an idea of *when* students are participating in these experiences during their undergraduate years. For this report, the "Overall" group of activities includes the ONSP-specified activities AND the other activities measures in the APA report but not identified by the ONSP advisory board.

KEY FINDINGS

1. Nineteen percent (19%) of new freshmen participated in one of the ONSP-specified academic enhancement experiences in fall 2006. An additional 52% of new freshmen had one of the other academic enhancement experiences.
2. Opportunities to participate in the ONSP-specified experiences are correlated with each other. New freshmen who participate in at least one experience are likely to have two or three of these experiences.
3. The most common ONSP-specified experience is participation in a first-year interest group (FIG). Nine percent of new freshmen in 2006 participated in this activity. The most common "other" activity is taking a course for honors. Sixty-two percent (62%) of new freshmen took a course for honors credit at some point during their first year.
4. Participation rates are uneven among several student demographic groups. Female new freshmen are more likely than male new freshmen to participate in these types of activities. Wisconsin resident new freshmen are more likely to participate in ONSP-specified activities than freshmen from outside Wisconsin. Targeted minority new freshmen have higher participation rates in ONSP-specified activities than non-targeted new freshmen. And there is evidence that the most academically prepared new freshmen, as measured by high school GPA and ACT score, are disproportionately likely to participate in these experiences.

¹ See www.newstudent.wisc.edu/firstyear/onsp_1stYrGoals.pdf

² Aaron Brower, Vice Provost for Teaching and Learning and Lori Berquam, Dean of Students.

³ See the Academic Planning and Analysis website's (www.apa.wisc.edu) "Degrees and Outcomes" section.

DEFINING THE “ENHANCEMENT” EXPERIENCES

The ONSP advisory board identified academic activities and experiences that meet the campus goals for new freshmen. The specific activities identified include:

- Participation in a course or course section connected to a residential learning community
- Participation in the College of Agricultural and Life Sciences’ “freshman seminar”
- Participation in the “first year experience” course
- Participation in the Undergraduate Research Scholars or Research Fellows program
- Participation in a First-Year Interest Group (FIG)

The tables in this report refer to this group of experiences as “ONSP-Specified” activities because they are the activities of special interest to ONSP and its advisory board.

The report detailing experiences for graduating seniors includes some experiences that are not intended for new freshmen and are therefore NOT measured for this report. These experiences include:

- Studying abroad
- Writing a thesis
- Participation in an internship for academic credit.

Other experiences included in the report for graduating seniors and available to first-year students but not included in the “ONSP-Specified” list include:

- Living in a residential learning community (as opposed to the narrower definition of enrollment in a learning community course)
- Taking a service-learning course
- Working closely with a faculty member in a seminar, honors or independent study course

The “Overall” grouping in this report refers to all the ONSP-specified activities AND the ones in the bulleted list above.

OVERALL PARTICIPATION RATES

In fall 2006, 5,643 new freshmen enrolled at UW-Madison. Overall, 71% of new freshmen had one of the academic enhancement experiences measured for this report during their first year (fall and spring semesters). Nineteen percent (19%) had one of the ONSP-specified experiences and 52% had an additional academic enhancement experience.

Overall, the most common number of experiences these freshmen had was one (31%). More than 40% of freshmen had two or more of these experiences. For the ONSP-specified experiences, the most common number of experiences is two, suggesting that opportunities for participation in these experiences are correlated with each other.

Table 1
Participation Rates in Academic Enhancement Experiences

	ONSP-Specified Activities		Overall Academic Enhancement Activities	
	Number	Percent	Number	Percent
Zero	4,595	81	1,643	29
Total One or More	1,048	19	4,000	71
One	391	7	1,728	31
Two	592	11	1,115	20
Three or more	65	1	1,157	21
Total Freshmen	5,643	100	5,643	100

The most recent Academic Enhancement Report (fall 2006 about the graduating class of 2005-06) shows that 84% of graduating seniors had at least one academic enhancement experience. The fact that 71% of new freshmen had one of these experiences during their first year shows that engagement-type opportunities ARE available to freshmen as well as upper class students. The first year is critical to creating opportunities for and encouraging participation in these activities that we view as valuable.

ACTIVITY-SPECIFIC PARTICIPATION RATES

Table 2 shows participation rates for each academic enhancement activity. Among the ONSP-specified experiences, participation in a first-year interest group (FIG) was the most common experience. Approximately one in every 11 new freshmen participated in a FIG in fall 2006. Taking an honors course was by far the most common of all experiences. More than 60% of all new freshmen took at least one course for honors during their first year.

Table 2
Participation Rates in Academic Enhancement Experiences by Type of Experience

Coordinator	Activity	ONSP-Specified	Participants	% of All New Freshmen
University Housing	Bradley Learning Community Course	✓	175	3
	Bradley Residential Learning Community		229	4
	Chadbourne Residential College Course	✓	46	<1
	Chadbourne Residential College		455	8
	WISE (Women in Science & Engineer.) Course	✓	25	<1
	WISE Residential Learning Community		52	1
	Multicultural Learning Community Course	✓	34	<1
	Multicultural Residential Learning Community		37	<1
	International Learning Community Course	✓	62	1
International Residential Learning Community		59	1	
ONSP	First-Year Experience Course (CP 115)	✓	87	2
Letters & Science	First-Year Interest Groups (FIGS)	✓	496	9
	Undergraduate Research Scholars Program	✓	68	1
CALS	CALS Freshman Seminar	✓	132	2
Other Departments	Independent Study Course		354	6
	Service Learning Course		19	<1
	Other Seminar Course		398	7
	Honors Course		3,488	62

DEMOGRAPHIC-SPECIFIC PARTICIPATION RATES

Certain types of new freshmen are more likely to participate in academic enhancement experiences than others. Table 3 below shows participation rates for several student demographic groups: gender, residency, race/ethnicity, high school GPA quartile and ACT quartile. Up arrows show participation rates that are significantly higher than the comparison group, down arrows show participation rates that are significantly lower than the comparison group and = signs shows areas where participation rates are not statistically different.

New freshman women are more likely than men to participate in both ONSP-specified and other academic enhancement activities. Wisconsin resident new freshmen are more likely to participate in ONSP-specified activities than other new freshmen and non-resident freshmen are less likely to participate. This may be because many of the ONSP-specified activities are closely tied to University Housing and Wisconsin resident students have priority in Housing assignments. Appendices 1 and 2 have details on participation rates by gender and residency.

Targeted minority new freshmen as a group are more likely to participate in ONSP-specified activities than non-targeted new freshmen. However, American Indian new freshmen have significantly lower participation rates than other targeted minorities and non-targeted students (see Appendix 3).

One measure of academic preparation for new freshmen is high school GPA (in quartiles, for this report). This is the student's recalculated and rescaled GPA computed by Undergraduate Admissions. Previous research conducted by APA shows that high school GPA is the variable with the highest predictive value in terms of first-semester and first-year GPA as well as retention to the second year⁴. New freshmen participating in ONSP-specified activities are disproportionately likely to be from the top high school GPA quartile. There are no differences by GPA quartile for the overall group of academic enhancement activities. Previous research conducted by APA shows that the most academically prepared new freshmen are disproportionately likely to live in University Housing and even more likely to live in a residential learning community⁵. The fact that top quartile new freshmen are disproportionately represented in University Housing and that most of the ONSP-specified activities have a strong Housing connection is likely connected to these participation rate differences. See Appendix 4 for details.

Another familiar measure of high school preparation is ACT scores (also in quartiles for this report). New freshmen from the lowest ACT quartile are disproportionately likely to participate in ONSP-specified activities and students from the top ACT quartile are disproportionately likely to participate in the overall group of activities. The fact that targeted minority freshmen participate at high rates in the ONSP-specified activities and that they are overrepresented in the lowest ACT quartile may explain the higher participation rates of new freshmen in this ACT quartile. High participation rates in the overall group of academic enhancement activities may be because new freshmen taking honors courses account for the largest group of participants. See Appendix 5 for details.

Table 3
Summary of Participation Rate Differences by Demographic Category

		ONSP-Specified Activities	Overall Academic Enhancement Activities
Gender	Women	↑	↑
	Men	↓	↓
Tuition Residency	Wisconsin Residents	↑	=
	MN Reciprocity	=	=
	Non-Residents	↓	=
Race/Ethnicity	Targeted Minorities	↑	=
	Non-Targeted	↓	=
High School GPA Quartile	Top HS GPA Quartile	↑	=
	Second HS GPA Quartile	↓	=
	Third HS GPA Quartile	=	=
	Bottom HS GPA Quartile	=	=
ACT Quartile	Top ACT Quartile	=	↑
	Second ACT Quartile	=	=
	Third ACT Quartile	=	↓
	Bottom ACT Quartile	↑	↓

Notes: All arrows indicate chi-square tests that are significant at the < .05 level. The "up" arrow indicates freshmen more likely participate in the academic enhancement activity, and the "down" arrow indicates freshmen less likely to participate. Appendices 1-4 provide more detail.

⁴ See <http://apa.wisc.edu/admissions/AnalysisofSchoolCharacteristics.pdf> for one example.

⁵ See http://apa.wisc.edu/Fall_2005_Freshman_Outcomes.pdf

CONCLUSIONS AND RECOMMENDATIONS

This analysis shows that around one in every five new freshmen is engaged in at least one of the academic experiences desired for ALL freshmen by the end of their first year (one of the ONSP-specified experiences). By a broader measure, almost 3 in 4 freshmen are having some type of academic enhancement experience during their first year, mainly by taking a course for honors. If the desired participation rate of freshmen in ONSP-specified activities is 100%, then clearly there is work to do in expanding the capacity, and possibly number, of these activities.

Current opportunities for new freshmen to participate in these activities are closely tied to University Housing's space capacity issues. Ongoing efforts to expand the number of Housing spaces to meet demand, if successful, should alleviate some of the gap in participation rates between resident and non-resident new freshmen. Furthermore, until Housing capacity expands to meet demand, it will be difficult to reduce or eliminate participation rates gaps between the most and least academically prepared students.

The participation rate gap for male new freshmen is also concerning, particularly because only one of the activities (WISE) is specifically for female students. Gaining a better understanding of why male new freshmen are less interested in participating in these activities and/or what types of enhancement activities would appeal more to them is an important first step in reducing the gap in participation rates. Examining the strategies that have led to high participation rates for targeted minority new freshmen may yield valuable information that could be applied to men.

High participation rates by targeted minority freshmen show success on many fronts to develop opportunities that appeal to them and to ensure participation. However, the significantly lower participation rates of American Indian new freshmen warrant investigation and possible remediation.

Finally, both the ease of and quality of measurement of participation in these activities could be improved for future iterations of this report. Clearly defining and delineating the experiences that "count" in defining the first-year experience, along with the rationale for those decisions, is a critical step. It is also vital that these experiences be distinguishable on the student record in ways that are transparent to students and faculty/staff.

APPENDICES

**Appendix 1
Participation Rates in Academic Enhancement Experiences by Gender
For New Freshmen in 2006-07**

	ONSP-Specified Activities		Overall Academic Enhancement Activities		Total
	Participants	% of Group	Participants	% of Group	
Male	383	15*	1,821	70*	2,604
Female	665	23*	2,319	76*	3,039

Note: Asterisk indicates statistically significant difference based on a chi-square test at the <0.05 confidence level.

**Appendix 2
Participation Rates in Academic Enhancement Experiences by Tuition Residency
For New Freshmen in 2006-07**

	ONSP-Specified Activities		Overall Academic Enhancement Activities		Total
	Participants	% of Group	Participants	% of Group	
WI Residents	655	19*	2,459	81	3,380
MN Reciprocity	124	20	451	71	636
Non-Residents	269	17*	1,230	76*	1,627

Note: Asterisk indicates statistically significant difference based on a chi-square test at the <0.05 confidence level.

**Appendix 3
Participation Rates in Academic Enhancement Experiences by Race/Ethnicity
For New Freshmen in 2006-07**

	ONSP-Specified Activities		Overall Academic Enhancement Activities		Total
	Participants	% of Group	Participants	% of Group	
Targeted Minorities	171	32*	388	72	541
African American	70	38*	136	74	185
Hispanic/Latino	61	30*	151	74	206
American Indian	5	14*	198	53*	36
Southeast Asian	35	31*	82	72	114
Non-Targeted	877	17*	3,752	74	5,102

Note: Asterisk indicates statistically significant difference based on a chi-square test at the <0.05 confidence level.

Appendix 4
Participation Rates in Academic Enhancement Experiences by High School GPA Quartile
For New Freshmen in 2006-07

	ONSP-Specified Activities		Overall Academic Enhancement Activities		Total
	Participants	% of Group	Participants	% of Group	
Top Quartile (3.94-4.00)	282	21*	969	73	1,327
Second Quartile (3.77-3.93)	228	17*	1,009	75	1,352
Third Quartile (3.51-3.76)	243	18	952	72	1,324
Bottom Quartile (3.5 and under)	253	19	1,003	74	1,358

Notes: 1) Does not include 282 freshmen without a calculated high school GPA. 2) Asterisk indicates statistically significant difference based on a chi-square test at the <0.05 confidence level.

Appendix 5
Participation Rates in Academic Enhancement Experiences by ACT Quartile
For New Freshmen in 2006-07

	ONSP-Specified Activities		Overall Academic Enhancement Activities		Total
	Participants	% of Group	Participants	% of Group	
Top Quartile (30-36)	277	18	1,212	79*	1,532
Second Quartile (28-29)	252	18	1,007	72	1,401
Third Quartile (26-27)	241	17	999	71*	1,407
Bottom Quartile (25 and under)	267	21*	889	70*	1,262

Notes: 1) Does not include 41 freshmen without an ACT or SAT test score. 2) Asterisk indicates statistically significant difference based on a chi-square test at the <0.05 confidence level. 3) SAT scores for freshmen who only took the SAT were converted to ACT scores using a concordance table provided by The College Board.

DEFINITION OF TERMS AND TECHNICAL NOTES

Freshmen with multiple occurrences of the same experience are counted once for the purposes of this report. For example, a freshman who enrolled in two honors courses is counted as having “one experience”. A freshman who enrolled in two honors courses and lived in the Bradley Learning Community is counted as having “two experiences”.

Residential Learning Communities

Freshmen who had a University Housing record indicating they lived in the Bradley Learning Community, Chadbourne Residential College, International Learning Community, Multicultural Learning Community or Women in Science and Engineering (WISE) Learning Community. Source: Division of University Housing records

College of Agricultural and Life Sciences’ (CALS) “Freshman Seminar”

An orientation and skill development course for new students in CALS. InterDis CALS 155 (course ID 494155). Source: InfoAccess Data Warehouse. STDNT_CRSE_ROSTER_MUTITERM data view.

First-Year Experience Course

A freshman-only seminar that explores issues of race and class in the transition from high school to college. Counseling Psychology 115 (course ID 004574) sections taught by ONSP staff members (course administrator ID = 0000541370) sections 17-23 in fall 2006 and sections 16-17 in spring 2007. Source: InfoAccess Data Warehouse. STDNT_CRSE_ROSTER_MUTITERM and STDNT_TIMETABLE_MULTITERM data views.

Courses for Residential Learning Communities

Freshmen who enrolled in particular courses or sections of courses designed for students in particular learning communities. For freshmen in 2006-07 this includes:

1. Bradley Learning Community Roundtables
Integrated Liberal Studies 198 (course ID 010471 with associated group number = 000841)
2. International Learning Community Roundtables
Integrated Liberal Studies 198 (course ID 010471 with associated group number = 001056)
3. Chadbourne Learning Community Sections
Integrated Liberal Studies 199 (course ID 010472 with associated group number = 000849)
4. Women in Science and Engineering (WISE) Learning Community Sections
Biology 150 (course ID 010515 with associated group number = 000846)
5. Multicultural Learning Community Sections
Afro-American Studies 199 (course IE 000213 with associated group number = 001257)

Source: InfoAccess Data Warehouse. STDNT_CRSE_ROSTER_MUTITERM and STDNT_TIMETABLE_MULTITERM data views.

First-Year Interest Groups (FIGS)

Freshmen who had a student group record indicating participation in one of the first-year interest groups. For freshmen in 2006, the student group name was "FIG 2006 students". Source: InfoAccess Data Warehouse. STDNT_GROUP_MUTITERM data view.

Undergraduate Research Scholars

Freshmen who have a student group record indicating participation in the Undergraduate Research Scholars program. Source: InfoAccess Data Warehouse. STDNT_GROUP_MUTITERM data view.

Honors Course

Freshmen who completed a course or course section for honors credit. Source: InfoAccess Data Warehouse. STDNT_CRSE_ROSTER_MUTITERM and STDNT_TIMETABLE_MULTITERM data views.

Independent Study Course

Freshmen who took a course identified by the section type as independent study (except those already identified as learning community courses). These are generally courses that end in "89", "98", and "99". Source: InfoAccess Data Warehouse. STDNT_CRSE_ROSTER_MUTITERM and STDNT_TIMETABLE_MULTITERM data views.

Service Learning Course

Freshmen who took a course (or course section) that was indicated to have some kind of service learning, volunteer, or community service component. This only encompasses courses identified as having a service learning component. There are probably other freshmen who participated in non-course-based opportunities. There is no searchable field in the Timetable for service learning courses. Students are notified of a service learning component in the class footnote section of the Timetable and it is this field that was used to develop the list of service learning courses for this analysis. Source: InfoAccess Data Warehouse. STDNT_CRSE_ROSTER_MUTITERM data view. ISIS CLASS_NOTES table.

Other Seminar Course

Freshmen who took a course identified by the section type as a seminar. Source: InfoAccess Data Warehouse. STDNT_CRSE_ROSTER_MUTITERM and STDNT_TIMETABLE_MULTITERM data views.