

**Montana University System**  
**PROGRAM REVIEW**

Institution: Montana State University - Bozeman

Program Years: 2012-2013

**List of the programs reviewed:**

Agricultural Education

- BS Agricultural Education
- MS Agricultural Education

**Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:**

The BS and MS in Agricultural Education will be continued with the expectation that program faculty will work with administration and external constituencies to create sustainable programs for the future. A second review in 2018-19 will be used to monitor progress towards goals.

**Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.**

**Enrollments**

**Agricultural Education Fall Major Enrollments, 2002-2011**

Major	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
BS Agricultural Education	55	57	61	45	52	51	61	57	58	61
MS Agricultural Education	8	7	9	3	3	3	4	5	6	8
BS Agricultural Operations Technology*	19	22	25	37	29	15	7	3	2	0

\* The BS Ag Operations Technology degree has been discontinued

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

**Degrees Awarded**

**Agricultural Education Degrees Awarded Annually by Major and Concentration**

Major	AY05	AY06	AY07	AY08	AY09	AY10	AY11	AY12
BS Agricultural Education	13	10	13	5	14	14	9	6
MS Agricultural Education	4	4	1	1	2	1	2	0
BS Agricultural Operations Technology*	6	7	7	8	4	1	1	0

\* The BS Ag Operations Technology degree has been discontinued

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

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#### Analysis

Neither the BS nor MS in Agricultural Education meet desired thresholds for degree productivity. The five-year averages are 9.6 degrees/year for the BS, and 1.2 degrees/year for the MS. The BS value is being pulled down by an atypically low value in AY12, so the number of degrees awarded for the BS in Agricultural Education is likely to return to an average of at least 10/year in the future, a minimally acceptable value. However enrollments in both the undergraduate and graduate programs are recognized to be less than desired.

The Agricultural Education programs are administratively directed by the Dean of Agriculture, as a division rather than a department. The Dean has requested two external reviews as a way to help chart a path forward for these programs. The first external review was held in December 2012, the second is scheduled for 2018-19. Additionally, monthly updates are required and a new leadership model, with a department head to be named soon, is being developed.

The BS and MS programs in Agricultural Education are not sustainable in their current configuration, but we all believe that these programs are highly important to the State and should be revived. The 2012 evaluators identified several areas requiring change, including communications, curriculum content (both undergraduate and graduate), and advising. To begin addressing these issues, the University administration provided support for the faculty to work over Summer 2013, and funding to renovate their facilities.

Progress towards creating sustainable Agricultural Education programs for the future will be addressed during the 2018-19 review.

The 2012 evaluators concluded their report with a statement that summarizes our hopes and expectations for these programs:

The Agricultural Education program in the College of Agriculture at Montana State University has a long and distinguished history. As Montana's only land-grant university, it is the mission of MSU to serve the agriculture community of the state. Subsequently, it is the mission of the Division of Agricultural Education to prepare quality agriculture teachers for secondary agricultural education programs in high schools. The Division's undergraduate and graduate programs also prepare future leaders for extension education, 4-H youth development, and a host of agricultural industries in Montana and across the country.

As with any academic program in any land-grant university, the Division of Agricultural Education is in a constant state of change. Students, faculty, staff, budgets are all variables that are influx from year-to-year. However, one constant across this evaluation was the clearly evident desire among students, faculty, alumni, stakeholders, and college administration is that the Agricultural Education program at MSU be maintained, and improved.

In order to see growth and progress, it will take a joint effort of faculty, college and

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### PROGRAM REVIEW

university administrators, alumni, Advisory Committee members, and others to come together and agree upon the future direction of the Division. If the unit is given improved physical facilities, financial resources, and a set time-line to make changes, it is the belief of this External Program Review Committee that the agricultural education program will once again return to a position of strength and be a key partner in the future of the agricultural industry in the great state of Montana.

**Montana University System**  
**PROGRAM REVIEW**

Institution: Montana State University - Bozeman

Program Years: 2012-2013

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**List of the programs reviewed:**

Animal and Range Science

- B.S. Natural Resources and Rangeland Ecology (formerly Range Science)
  - B.S. Animal Science
  - Animal Science Minor
  - Genetics Minor
  - Natural Resources and Rangeland Ecology Minor
  - MS Animal and Range Science
  - PhD Animal and Range Science
- 

**Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:**

Programs to be continued:

- B.S. Natural Resources and Rangeland Ecology (formerly Range Science)
- B.S. Animal Science
- Animal Science Minor
- Natural Resources and Rangeland Ecology Minor
- MS Animal and Range Science

Program currently being monitored for potential elimination:

- Genetics Minor

Program being rebuilt by faculty initiatives, to be monitored for required program growth:

- PhD Animal and Range Science
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**Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.**

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### Enrollment

**Animal and Range Science Fall Major Enrollments, 2002-2011**

Degree	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
BS Animal Science	129	151	154	172	170	155	153	169	193	212
BS Nat. Resources and Rangeland Ecology	34	38	34	35	42	53	57	69	85	86
MS Animal and Range Sciences	17	20	19	18	20	13	17	16	17	18
PhD Animal and Range Sciences	1	3	3	3	2	6	5	2	1	

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

**Animal and Range Science Fall Minor Enrollments, 2002-2011**

Minor	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Animal Science	5	5	5	1	1	3	3	2	4	6
Genetics (dept not specified)										2
Nat. Resources and Rangeland Ecology (formerly Range Science)	1	1	2	1	2	2	2	1	1	5

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

### Degrees Awarded

**Animal and Range Science Degrees Awarded Annually by Major and Concentration**

Degree	AY05	AY06	AY07	AY08	AY09	AY10	AY11	AY12
BS Animal Science	28	33	30	34	35	26	32	41
BS Natural Resources and Rangeland Ecology	10	9	6	10	8	12	17	13
MS Animal and Range Science	6	8	9	5	8	5	7	10
PhD Animal and Range Science	0	0	1	0	1	2	1	0

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

**Animal and Range Science Degrees Awarded Annually by Minor**

Minor	AY05	AY06	AY07	AY08	AY09	AY10	AY11	AY12
Animal Science	3	1	2	2	2	0	5	5
Genetics (dept not specified)	0	0	0	0	1	1	1	1
Nat. Resources and Rangeland Ecology	0	0	0	0	0	1	1	2

No data reported on Range Science minors awarded

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

### Analysis

The enrollments and degree productivity in the BS and MS programs are substantial and sustainable. The Animal Science minor is frequently used. The former Range Sciences minor was not being used by students in significant numbers and has been eliminated. The new Natural Resources and Rangeland Ecology minor appears to be gaining traction with students. We hope to see the number of students pursuing this minor increase in the future.

The fact that number of minors awarded is about the same as the number of students enrolled indicates that students are not indicating that they are pursuing the minor until they file for graduation. This is an artifact of the graduation certification process, and does not indicate a problem with the number of students pursuing the minors.

The Genetics minor is an interdisciplinary minor that was placed “on notice” for elimination if the number of students pursuing the minor did not increase. The 2010 program review stated an expectation for program continuation that (1) five students needed to be enrolled in the minor within a year, and (2) two students needed graduate with the genetics minor in the next two years. The faculty have responded and encouraged students to consider and enroll in the minor.

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Genetics Minor Fall Enrollments 2011-2013			
Degree	2011	2012	2013
Genetics Minor	2	5	16

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

Genetics Minor Degrees Awarded				
Degree	AY09	AY10	AY11	AY12
Genetics Minor	1	1	1	1

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

The requirements to maintain the Genetics minor have been met, and the significant increase in students enrolling in the minor indicates that the minor is not only sustainable, but the number of minors awarded will be increasing in the future.

Of greatest concern is the small number of students enrolled in the Animal and Range Sciences PhD program, and the very low rate of PhD awards in this program.<sup>1</sup> The most recent five-year average is less than one PhD awarded per year. This program is at a transition point; it needs to be reactivated or eliminated. The department faculty is taking proactive steps to build the PhD numbers, and the program may become more visible as the new Veterinary Medicine program grows. The department requested and was awarded a new GTA line from the Graduate School. This new line is one of 18 funded centrally with the specific purpose of increasing PhD production at MSU. Increasing PhD productivity is central to accomplishing the MSU Strategic Plan, and the institution will work with the Animal and Range Sciences faculty to build the PhD program. We will continue to monitor PhD productivity in this program to ensure that the steps currently being taken by the faculty to rebuild the program are effective.

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<sup>1</sup> The department reports that there are currently four PhD candidates in the Animal and Range Sciences program. Unfortunately it is not uncommon to see differences in departmentally reported values and data in the campus database. Students entering the program as MS students may be perceived by the department to be pursuing a doctoral degree, but may not have submitted the paperwork to officially switch from an MS to a PhD program.

**Montana University System**  
**PROGRAM REVIEW**

Institution: Montana State University - Bozeman

Program Years: 2012-2013

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**List of the programs reviewed:**

Business

- BS Business
  - Master of Professional Accountancy
  - Minors
    - Accounting
    - Business Administration
    - Entrepreneurship and Small Bus
    - International Business
    - Management of Information Technology
- 

**Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:**

The BS in Business and the Master of Professional Accountancy programs will be continued. The minors in Accounting, Business Administration, Entrepreneurship and Small Business Management, and International Business will be continued.

The minor in Management of Information Technology will be placed in moratorium status while the faculty reviews the program to determine whether or not the minor should be modified or discontinued.

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**Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.**

**Enrollments**

In the summary values reported here include pre-business majors and combine all four options (accounting, finance, marketing, and management). All four options are well-subscribed and sustainable.

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### College of Business Fall Major Enrollments, 2002-2011

First Major

Degree	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
BS Business	1101	1034	1062	1155	1128	1151	1139	1120	1052	1096
Master of Professional Accountancy	34	31	43	42	33	48	50	48	48	41

Second Major

Degree	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
BS Business	4	5	6	7	7	12	12	9	23	28

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

### College of Business Fall Minor Enrollments, 2002-2011

Minor	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Accounting	2	1	1	1		1	1	1		5
Business Administration	26	43	24	26	25	23	23	21	9	26
Entrepreneurship and Small Bus	10	6	14	34	23	46	32	45	16	48
International Business	3	6	4	7	8	15	12	12	1	3
Management of Information Tech.	3	2	4	2	4	2	3	4	2	7

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

## Degrees Awarded

### College of Business Degrees Awarded Annually by Major and Concentration

Degrees Awarded by First Major

Degree	AY05	AY06	AY07	AY08	AY09	AY10	AY11	AY12
BS Business	228	219	206	236	213	246	184	201
Master Prof. Accountancy	34	41	29	36	43	43	41	33

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

### College of Business Degrees Awarded Annually by Minor

Minor	AY05	AY06	AY07	AY08	AY09	AY10	AY11	AY12
Accounting	1	1	1	1	2	1	1	4
Business Administration	26	32	25	35	39	40	36	35
Entrepreneurship and Small Bus	28	43	38	45	48	63	43	47
International Business	10	12	13	17	28	21	12	12
Management of Information Technology	3	1	6	4	3	7	4	7

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

## Analysis

The BS Business and Master of Professional Accountancy programs are well-subscribed and sustainable. The Business College was reviewed by evaluators from AACSB (The Association to Advance Collegiate Schools of Business). The College was accredited for another five years, and received the following commendations:

1. The Professional Advantage Program is a unique program designed to improve the professionalism of undergraduate business students. It includes a one credit Career Perspectives course, the Professional Coaching Clinic, the Bracken Business Communication Clinic, and resources for finding internships and employment through the Bracken Business Center for Excellence in

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Undergraduate Education.

2. The PRIDE Code of Excellence (Performance, Respect, Integrity, Diligence, and Engagement) addresses the college's commitment to professionalism for its students. It is reinforced in orientation sessions, faculty in the classroom, course syllabi, recognition awards, and disciplinary proceedings.
3. The PEAS rubrics are effective tools for assessment that have substantial support from faculty. In addition, their development has stimulated much discussion about assessment among faculty.
4. Students especially appreciate the accessibility and student focus of their faculty, the emphasis of the college on professionalism, the support for finding internships and employment, and real world focus of the curriculum.
5. The Bracken Center for Excellence in Undergraduate Education does an excellent job of collaborating and coordinating with the university level Career Internship and Student Employment Services center.
6. Bracken Business Communication Clinic is a valuable resource for students for everyday communication skills.

Three of the minors are well-subscribed and sustainable: Business Administration, Entrepreneurship and Small Business Management, and International Business. The Accounting minor is not being attempted by very many students, but the courses required for the Accounting minor are required by students in the major. There is nothing to be gained by eliminating this minor.

The Management of Information Technology minor is not taken by enough students to be sustainable, and does require unique courses to be provided for students in this minor. The Business faculty has requested that this minor be placed in moratorium status while the program is reviewed to determine whether or not the minor should be modified or discontinued. The Level I request to place the minor in moratorium is being reviewed on campus and it is anticipated that the request will come before the Regents in the Spring.

**Montana University System**  
**PROGRAM REVIEW**

Institution: Montana State University - Bozeman

Program Years: 2012-2013

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**List of the programs reviewed:**

Psychology

- BS Psychology
- Psychology Minor
- MS Psychology

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**Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:**

All three programs will be continued.

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**Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.**

The MS Psychology shifted from an emphasis on applied psychology to psychological science in 2008. The data for both programs are combined in the following summary tables as MS Psychology.

**Enrollments**

**Psychology Fall Major Enrollments, 2002-2011**

First Major

Degree	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
BS Psychology	242	239	216	205	222	203	216	238	273	316
MS Psychology	12	11	13	10	11	11	10	9	10	12

Second Major

Degree	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
BS Psychology	9	6	7	9	4	7	11	8	13	9

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

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### Psychology Fall Minor Enrollments, 2002-2011

Minor	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Psychology	20	13	6	7	4	8	5	7	8	15

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

### Degrees Awarded

#### Psychology Department Degrees Awarded Annually by Major and Concentration

Degree	AY05	AY06	AY07	AY08	AY09	AY10	AY11	AY12
BS Psychology	62	51	41	45	40	57	61	47
MS Psychology	9	5	6	3	4	4	4	5

#### Psychology Department Degrees Awarded Annually by Minor

Minor	AY05	AY06	AY07	AY08	AY09	AY10	AY11	AY12
Psychology	2	2	2	6	7	8	6	4

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

### Analysis

The BS Psychology program and the Psychology minor (non-teaching) are popular with students and sustainable. Following the earlier departure of four faculty members, and the hire of replacements, in 2008 the MS Psychology faculty shifted the focus of the degree from applied psychology to psychological sciences to establish a more unique niche program that fits the faculty skills. The transition resulted in a temporary drop in degrees awarded, but the number has recovered to a sustainable level.

An external review team is scheduled to evaluate the Psychology Department programs on October 31, 2013. The evaluators are asked to assess the department faculty's response to the significant increase in student credit hours being taught by the department (29% increase since 2009), which has generated additional fiscal resources for the department (extra section funds). Additionally, the department faculty has expressed an interest in establishing a PhD program in Psychology with a focus on psychological sciences. Resource requirements for such a program will be a significant part of the review team's evaluation.

### Update

We will update this report after the review team's site visit.

**Montana University System**  
**PROGRAM REVIEW**

Institution: Montana State University - Bozeman

Program Years: 2012-2013

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**List of the programs reviewed:**

Sociology and Anthropology

- BS Anthropology
  - BS Sociology
  - Anthropology Minor
  - Sociology Minor
- 

**Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:**

All four programs will be continued.

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**Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.**

**Enrollments**

**Sociology and Anthropology Fall Major Enrollments, 2002-2011**

Major	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Anthropology	32	43	42	45	40	42	45	55	70	66
Sociology	201	229	230	202	185	153	123	103	109	141

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

**Sociology and Anthropology Fall Minor Enrollments, 2002-2011**

Minor	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Anthropology					1	2			3	1
Sociology	1	4	2	4	3	2	5	9	6	12

**Montana University System**  
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**Degrees Awarded**

**Sociology and Anthropology Degrees Awarded Annually by Major**

Degrees Awarded by First Major

Major	AY05	AY06	AY07	AY08	AY09	AY10	AY11	AY12
Anthropology	2	5	11	7	6	5	12	7
Sociology	63	36	53	44	43	37	17	30

Degrees Awarded by Second Major

Major	AY05	AY06	AY07	AY08	AY09	AY10	AY11	AY12
Anthropology	0	0	0	0	1	1	0	0
Sociology	2	0	0	0	0	0	2	0

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

**Sociology and Anthropology Degrees Awarded Annually by Minor**

Minor	AY05	AY06	AY07	AY08	AY09	AY10	AY11	AY12
Anthropology	0	2	0	1	0	0	2	3
Sociology	3	3	3	1	6	11	5	8

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

**Analysis**

A review of the Sociology and Anthropology Department programs was conducted in September 2013 using an external review team. The review team was specifically asked to assess the potential for a graduate program in this department.

The review team praised the faculty commitment to instruction, and the opportunities provided to students to participate in research and scholarly activities. Concerns were expressed that the number of faculty is lower today than in the past, while student interest in these programs is growing in recent years (currently 185 majors in Sociology), particularly with the addition of the criminology option in 2010. Courses taught alternate years restrict student flexibility in scheduling, but the faculty strives to accommodate student needs. The current faculty members are stretched now. While the faculty has the expertise to offer a graduate program, probably in a niche area, the number of faculty will need to be increased to support a graduate program while sustaining the current undergraduate program. No decision has been made on a graduate program in this department, but the review team's input is valued.

The enrollment numbers and degrees awarded in Sociology, including the Sociology minor, are sufficient to sustain the program. The number of degrees awarded in Anthropology is smaller than we would like, but the enrollment has increased by 40% in the past few years. Because of this we expect to see the number of degrees awarded increase in future years.

The number of students choosing to take the Anthropology minor is small. However, the courses taken by the students in the minor are required for students in the major as well. There is no efficiency gained by eliminating the Anthropology minor.

**Montana University System**  
**PROGRAM REVIEW**

Institution: Montana State University - Bozeman

Program Years: 2012-2013

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**List of the programs reviewed:**

Psychology

- BS Psychology
- Psychology Minor
- MS Psychology

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**Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:**

All three programs will be continued.

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**Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.**

The MS Psychology shifted from an emphasis on applied psychology to psychological science in 2008. The data for both programs are combined in the following summary tables as MS Psychology.

**Enrollments**

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First Major

Degree	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
BS Psychology	242	239	216	205	222	203	216	238	273	316
MS Psychology	12	11	13	10	11	11	10	9	10	12

Second Major

Degree	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
BS Psychology	9	6	7	9	4	7	11	8	13	9

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

**Montana University System**  
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**Psychology Fall Minor Enrollments, 2002-2011**

Minor	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Psychology	20	13	6	7	4	8	5	7	8	15

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

**Degrees Awarded**

**Psychology Department Degrees Awarded Annually by Major and Concentration**

Degree	AY05	AY06	AY07	AY08	AY09	AY10	AY11	AY12
BS Psychology	62	51	41	45	40	57	61	47
MS Psychology	9	5	6	3	4	4	4	5

**Psychology Department Degrees Awarded Annually by Minor**

Minor	AY05	AY06	AY07	AY08	AY09	AY10	AY11	AY12
Psychology	2	2	2	6	7	8	6	4

Source: Office of Planning and Analysis, OCHE Student Data Warehouse

**Analysis**

The BS Psychology program and the Psychology minor (non-teaching) are popular with students and sustainable. Following the earlier departure of four faculty members, and the hire of replacements, in 2008 the MS Psychology faculty shifted the focus of the degree from applied psychology to psychological sciences to establish a more unique niche program that fits the faculty skills. The transition resulted in a temporary drop in degrees awarded, but the number has recovered to a sustainable level.

An external review team is scheduled to evaluate the Psychology Department programs on October 31, 2013. The evaluators are asked to assess the department faculty's response to the significant increase in student credit hours being taught by the department (29% increase since 2009), which has generated additional fiscal resources for the department (extra section funds). Additionally, the department faculty has expressed an interest in establishing a PhD program in Psychology with a focus on psychological sciences. Resource requirements for such a program will be a significant part of the review team's evaluation.

**Update**

An external review of the MSU Psychology programs was conducted on 10/31 and 11/1/2013. The reviewers emphasized the following points:

- The undergraduate curriculum is exceptionally strong and could serve as a model for psychology programs across the nation.
- The requirement that each student complete either a research project or have practical experience adds value to the undergraduate degree.
- The focus on psychological sciences differentiates the program from other institutions in the State, and has generated significant student interest.
- The faculty, though small in number, are highly productive researchers.