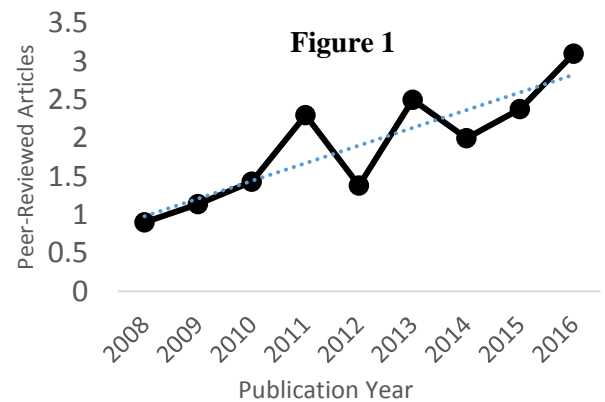


Summary of Psychology Department Research: January 1, 2014 – December 31, 2016

HIGHLIGHTS

Faculty Awards. During the reporting period, our faculty received many research-based awards. Rebecca Brooker received the “Rising Star” award from the Association for Psychological Science. This award “recognizes outstanding psychological scientists in the earliest stages of their research career post-PhD whose innovative work has already advanced the field and signals great potential for their continued contributions.” Michelle Meade received a Fulbright Fellowship to support her work with colleagues in Australia on collaborative memory. Jessi Smith was elected fellow of both the Association for Psychological Science and American Psychological Association, and Matthew Vess was elected Fellow for the Society for Experimental Social Psychology.

Publications. The Psychology faculty published 19, 21, and 31 peer-reviewed articles over 2014, 2015, and 2016, respectively. Given fluctuations in faculty numbers, that corresponds to 2.1, 2.3, and 3.1 peer-reviewed article publications per faculty across the three years. Our publication rate has been steadily increasing and has actually tripled since 2008 (see Figure 1). More importantly, these publications are in top journals both within Psychology (e.g., Journal of Experimental Psychology, Psychological Bulletin, Child Development), but also in prestigious cross-disciplinary journals (e.g., Science, PNAS). In fact, our faculty are highly cited, with average google scholar citation counts (when available) of 2,656 for full professors, 794 for associate professors and 422 for assistant professors. Many of these publications resulted from the federally funded research projects detailed below. Finally, people are noticing the outstanding work of MSU Psychology researchers, with our research covered by such popular media outlets as Huffington Post, Science News, Chronical of Higher Education, Inside Higher Ed, etc... In addition to journal articles, Psychology faculty published an edited handbook and four book chapters during this 3-year term, with two other books currently in press.



Grant Highlights. There were 19 separate grants held by Psychology faculty as PI or Co-PI that were active during the period between 2014 and 2016. These 19 grants totaled **\$7,381,418** and included a \$3.5 million ADVANCE grant (Jessi Smith PI), a \$500K grant from the Templeton Foundation (Matthew Vess PI), and a \$500K NIH early career award (Rebecca Brooker). [Importantly, Academic Analytics grossly neglects psychology grant funding, showing only 1 grant during this period for approximately \$200K. **MSU must avoid using this dangerously inept index of grant activity**]. Our 19 grants focused on divergent areas of research including transforming MSU to increase feeling of relatedness, autonomy, and support for female faculty, understanding virtue and its development in the context of heritability, examining risk for psychopathology in infants, and the relation between maternal mental health, child temperament,

and biological markers of anxiety risk. In addition to these projects, there are many projects formed in collaboration with tribal communities examining such factors as substance abuse and resilience, sexual health, internalizing problems, biosocial pathways to promote resilience and health, and Native American experiences in STEM fields. This Community-Based Participatory Research involves collaborative efforts between the Psychology department and tribal members from the Blackfeet, Rocky Boy, Fort Belnap, and Fort Peck reservations in Montana.

GRADUATE STUDENTS

Included in this report are three cohorts of students from our master's program (2012-2014; 2013-2015; 2014-2016; 2015-2017) that overlapped at least partly with the 3-year reporting window and the initial year of students in our new Ph.D. program (admitted fall 2016). This includes 23 total students: 8 admitted in 2013, 5 admitted in 2014, 6 admitted in 2015, and 4 students admitted in 2016. Graduate students were heavily involved in research during this period. Specifically, there were 32 total national and regional conference presentations by graduate students and 18 of those featured a graduate student presenter. In addition, there were 16 peer-reviewed journal publications that included graduate students and 9 of those featured a graduate student as 1st author. In addition, two of our new first-year Ph.D. students received meritorious awards from the graduate school.

MAJOR ACCOMPLISHMENTS FOR 2014-2016

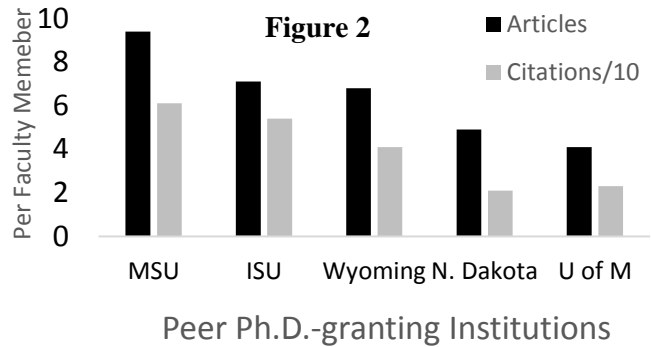
We are very proud of our strong improvements in securing funding and quantity of publications. As mentioned above, our publications have tripled since 2008, and our grant funding has increased at least 5-fold in both the number of grants and total dollars. This is in spite of ever-increasing grant competition and decreasing federal support. Many of the projects described above are at their beginning stages. Nonetheless, there are already some exciting discoveries including...

- Social support modulates neural reactivity to negative emotional information in pregnant mothers.
- MSU's 25% sexual assault rate is much higher among those assaulted in childhood or adolescence, suggesting targeted interventions.
- Emphasizing communal utility value increases students' motivation for biomedical science
- Those low in working memory capacity are less convincing liars, especially under cognitive load.
- People who frequently mind wander also report not knowing who they truly are.
- Both young and older adults discount older adult suggestions when recalling an event, yet readily incorporate young adult false suggestions into their own memory.
- Racism, discrimination, and historical trauma are important barriers to addiction recovery among American Indian community members.
- Stressing societal benefits enhances minority students' motivation for science careers.
- Neural activity predicts preschool anxiety risk, but this association depends on children's SES.
- Pupil diameter changes reflect focused attention vs. mind wandering during task preparation.
- High racial discrimination toward MSU students of color is positively associated with anxiety, depression, and substance use problems.
- Women self-described as assertive and competitive in STEM contexts feel less authentic.
- Interventions based on self-determination needs increase hiring female tenure track candidates.

These discoveries have importance implications for both basic science and applications to improve health, technology, and well-being.

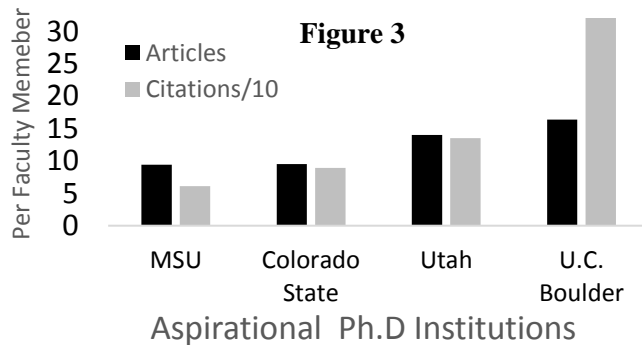
PRODUCTIVITY COMPARISONS WITH PEER INSTITUTIONS

I used Academic Analytics to examine our productivity relative to institutions typically viewed as peers. This includes our closest regional Ph.D. programs in Psychology. Unlike grant funding, journal article and citation calculations align closely with reality. The data in Figure 2 represents Academic Analytics output, which presents the years 2012-2015 for articles and 2011-2015 for citations. As is apparent in Figure 2, we outperformed our four peers in both articles per faculty and citations (divided by 10) per faculty. As mentioned above, it was



impossible to compare on grant activity, because academic analytics grossly fails to capture this.

Next, in Figure 3 we compared our productivity to the top 3 Ph.D. Psychology programs in the Rocky Mountains. In this case, our productivity is closest to Colorado State. We are slightly below Utah and U.C. Boulder in articles published per faculty member, but more strongly below in citations/10 per faculty.



This is likely due to our faculty being relatively young (1/2 our faculty are assistant professors). We anticipate assistant professor citations to increase with growing reputations and increasing publications from which to cite.

GOALS FOR 2017-2018

Replacing two outstanding researchers such as Rebecca Brooker and Matthew Vess will be a huge challenge for the upcoming year. Thus, our main goal is to hire two high-quality assistant professors hopefully to match their excellent productivity. That will be a major challenge, given the upcoming CLS budget deficit. Our second goal is to continue to strengthen and develop graduate research productivity for our new Ph.D. program in Psychological Science. The expectation for Ph.D. students to present and publish high quality research is greater than for master's students. To accomplish this, we will need MSU's support in (1) increasing GTA stipends to competitive rates (minimum \$15K) to attract quality students and (2) funding student travel to present research at national conferences. These are our two most pressing goals. Once we can replace our assistant professors, we can continue our rise out of our current Ph.D. peer-group and into our aspirational Ph.D. peer-group.