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## News from the AALHE

*By Catherine Wehlburg, AALHE President Elect*

### 2015 Conference

The 2015 Annual AALHE conference was held in Lexington, KY, from June 1 to June 3rd. This was a record-breaking year for conference attendance, with more than 300 attending – thank you to all of you who were there! The conference featured several plenary speakers, including:

- Dr. Tim Tracy, Provost, University of Kentucky
- Mr. Raymond Burse, President, Kentucky State University
- Dr. Jillian Kinzie, Associate Director, Center for Postsecondary Research & NSSE Institute
- Dr. Robert Pacheco, Dean of Institutional Effectiveness, MiraCosta College

In addition, we hosted a poster session for the first time. It was well-attended, aided no doubt by having dessert served in the same room. The session provided our members a good opportunity to have focused conversations with colleagues from around the world.

### Upcoming 2016 AALHE Conference

The 2016 AALHE Annual Conference will be held June 6th – 8th at the Pfister Hotel in Milwaukee, WI. You can check the AALHE website for the most up-to-date information on this conference at <http://www.aalhe.org/events/annual-conference/2016-annual-conference/>. The 2016 conference committee is already hard at work planning for another amazing learning and networking experience.

### AALHE Leadership

AALHE is also pleased to congratulate Tara Rose, University of Kentucky, our new AALHE President. Dr. Eric Riedel, Walden University, now assumes the AALHE Past President position. And the AALHE executive committee welcomed Dr. Catherine Wehlburg, Texas Christian University, as the incoming President Elect. In addition, Jonathan Keiser, City Colleges of Chicago now joins the AALHE Board of Directors. Welcome, Jonathan! You can see the information on AALHE's Board of Directors at <http://www.aalhe.org/about-aalhe/board-of-directors/>.

### AALHE Committees

AALHE has slightly modified its committee structure for the upcoming year to better serve our members. You are invited to contact AALHE ([info@aalhe.org](mailto:info@aalhe.org)) if you are interested in serving on one of these committees! Information on their respective functions can be found at <http://www.aalhe.org/about-aalhe/committee-information/>.

## Understanding the Impact of Undergraduate Summer Research



Laura Palucki Blake and Karl A. Haushalter

Harvey Mudd College (HMC) is a small, private liberal arts college enrolling approximately 800 undergraduates. We offer nine engineering, science, and mathematics-based majors, all grounded in a solid core curriculum that includes a significant liberal arts component. HMC prepares our graduates to assume leadership in their chosen field with a clear understanding of the impact of their work on society. Like many other colleges and universities, we believe strongly in undergraduate research as a high impact practice. At HMC we strive to provide the opportunity for our students to participate in hands-on laboratory and field experiences typically reserved for graduate students. Anchored by this research-supportive curriculum, our students pursue research both during the academic year and in the summer through the Harvey

Mudd Summer Research Program, a 10-week, full-time immersive experience working with a faculty member.

At the program level, summer research seeks to provide students with the opportunity to work closely with a faculty mentor on current research, to increase interdisciplinary connections across departments through activities like our weekly seminar series and lab open houses, and to provide students exposure to additional aspects of doing research, including safety and hazardous materials training, research ethics, and information literacy. With respect to student learning, the summer research program seeks to foster the development of hands-on skills within a discipline as well as problem solving, communication and leadership skills. These combine to contribute to growth in students' academic self-confidence.

To establish an understanding of exactly who is participating in research (as well as when and how), we triangulated our 2014 National Survey of Student Engagement (NSSE) results with 10 years of our internal Senior Survey and other institutional data. Our NSSE results (see table below) confirmed what we knew anecdotally--that most of our seniors have worked with a faculty member on a research project during their time at HMC, and most of our first year students intend to do so. Further disaggregation of NSSE data by discipline shows that for seniors, those majoring in Biology, Chemistry, or Physics were the most likely to have participated in research with a faculty member, followed by those majoring in Mathematics and Computer Science, and Engineering.

Knowing that most of our students participate in research with faculty, we used results from our internal Senior Survey to see how many of those research experiences were in the summer research program. In 2014, about half of graduating seniors had at least one HMC summer research experience, and nearly 20% report participating in HMC summer research more than once. We also used the Senior Survey to look at when students participated in summer research. While most students participated in summer research in the summer after their sophomore or junior year, we did see an increase in students indicating they participated in summer research after their first year, rising from 11.3% in 2010 to 25.0% in 2014.

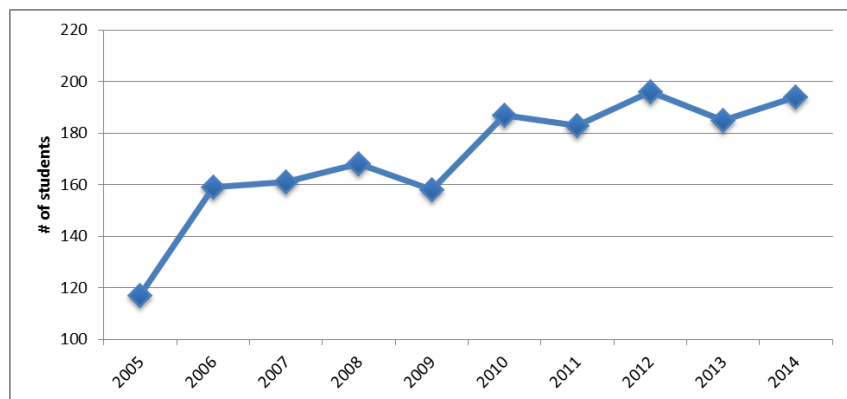
<i>Which of the following have you done (or do you plan to do) before you graduate: Work with a faculty member on a research project.</i>			
	HMC	Carnegie	NSSE Overall
Seniors (done)	73%	45%	24%
First Years (plan to do)	72%	43%	34%
<i>Research Project Participation by Discipline (Seniors)</i>			
Math & Computer Science	78%	54%	25%
Engineering	56%	62%	34%
Physical Sciences	97%	65%	52%

From 2014 NSSE and Institutional Data

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## Understanding the Impact of Undergraduate Summer Research

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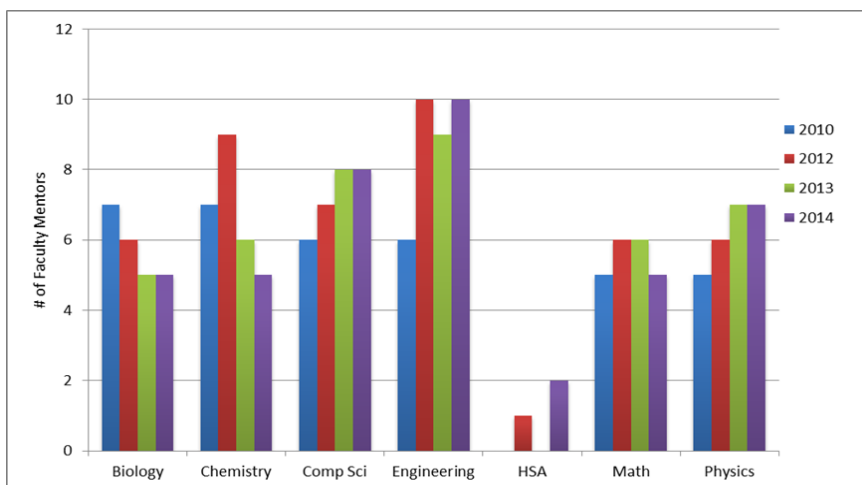
*Summer Research Participants*

Our institutional data was also important in shedding light on participation in summer research in two ways. First, by looking at the number of students participating, we can see participation rates in summer research have climbed steadily in the past decade (see the graph at left). When we look at participation relative to fall enrollment FTE, this finding holds.

We also used our institutional data to look at faculty participation. We were hoping to verify broad participation by

faculty across departments and disciplines, and as can be seen in the graph below, that is the case. We were especially gratified to see the participation in humanities, social sciences and the arts (HSA) research. While students cannot major in those fields at HMC, they are still engaged and participate in research with faculty in those fields, which aligns with our mission and values. These graphs show that we have about 200 students participating in summer research, under the guidance of roughly forty different faculty members.

In addition to understanding who participates in summer research, when, and how, it was also important for us to understand the impact of participation in summer research. We have many external markers of success: in the past decade more than 400 papers have been co-authored by students; we consistently are ranked as a top liberal arts school in NSF Graduate fellowships, and roughly a quarter of our graduates go on to earn PhD's.



*Faculty members by discipline who supervise summer student research.*

External markers of success are deeply gratifying, but we also wanted to better understand how participation in summer research impacts specific student learning outcomes like oral and written communication, critical and analytical problem solving, and academic self-confidence. To do that, we looked at 4 years of Survey of Undergraduate Research Experiences (SURE) Survey results. When comparing our SURE results to the overall SURE means, we identified several areas of concern, and as a result, have taken two new approaches to make better use of SURE results. First, we have worked with SURE to receive a unit record file of our results so that we can disaggregate our data in ways that are meaningful to our campus. We plan to track student learning outcomes by class year, gender, and discipline to see if there are specific practices that can be identified to improve student learning outcomes. Second, to augment our SURE findings, we have created an internal pre-post measure designed specifically for HMC summer research outcomes.

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## Understanding the Impact of Undergraduate Summer Research

*Continued from page 3*

Students will be asked to complete a brief pre/post questionnaire assessing disciplinary knowledge (use of relevant equipment, content knowledge, understand relevant literature, connect classwork with real world phenomena, translate theory into practice); written and oral communication (both formal and informal) scientific and quantitative literacy (knowledge of scientific method and experimental process); and social and emotional growth (independence, self-confidence, empathy, tolerance for ambiguity, leadership, collaboration). It is important to note that this instrument was not designed to replace the SURE instrument, rather to complement it.

Taken together, this information has deepened conversations about the quality and quantity of experiences in summer research program and how closely the experiences of students align with our assumptions about summer research and more importantly, our aspirations for the program. Results were most recently presented to the Board of Trustees in November of 2014 and are used to support and strengthen our strategic planning goals. The capital campaign seeks to expand and stabilize student funding for summer research (as well as experiential learning). Additionally, we are using this data to investigate ways to increase faculty stipend support so more faculty can engage students in summer research and to continue discussions about establishing a research office to support and centralize our operations.

HMC monitors progress on summer research through our Senior Survey, institutional data, the SURE survey, and through our new supplemental instrument. By surveying our students to gain a deeper understanding of their expectations and experiences in summer research, and consistently reviewing and reporting our findings, we continue to foster improvement in the summer research experience for our students.

*Laura Palucki Blake is Director of Institutional Research and Effectiveness at Harvey Mudd College  
Karl A. Haushalter is Associate Dean for Research and Experiential Learning and Associate Professor of Chemistry and Biology at Harvey Mudd College*

## Stay connected with AALHE!

Please make sure to check out AALHE on Twitter (@aalhe, @aalhechat, and @aalheorg) and on Facebook! If you haven't yet joined ASSESS, AALHE's listserv, you are encouraged to subscribe. To subscribe to ASSESS please follow the directions found at <http://www.coe.uky.edu/lists/helists.php>. Also, make sure to bookmark the Assessment Commons page which contains information on assessment-related sites: <http://www.assessmentcommons.org/>.

You can also register for upcoming AALHE Webinars (watch our website for more information) and connect with your assessment colleagues through AALHE Twitter Chats. These are announced through the ASSESS listserv and as emails sent to our members.

You can also find wonderful resources from this year's conference (and last year's as well) through the Conference Proceedings documents. These are posted under the Resource Room tab on the AALHE website at <http://www.aalhe.org/resource-room/>.



*Photo by Addison Zane Mills*



## Co-curricular Programs by Any Other Name Would Smell as Sweet



Jeremy Penn

What's in a name? That which we call a rose  
By any other name would smell as sweet  
-Juliet, *Romeo and Juliet*  
William Shakespeare

At the Higher Learning Commission conference in Chicago, I was reminded of the many different names for co-curricular programs and the departments or divisions that offer them. One institution called their division the “Division of Student Affairs,” another the “Division of Student Life,” another the “Dean of Students,” and another “Student Services.” There was even less agreement on the definition of co-curricular programs. In a recent post on a student affairs assessment listserv, Bob Crow writes, “[W]e understand ‘co-curricular’ broadly, as all of the learning opportunities that takes place outside the classroom.” Do co-curricular programs include, for example, the services provided by the Office of the Bursar? If it does, then the accreditation criteria for co-curricular programs would expect the Office of the Bursar to assess its impact on student learning – a challenging proposition!

The terminology of activities that occur outside the classroom has a long history. “Extracurricular,” for example, was defined by Pinar *et al* in 1995 as “those activities and events sponsored by the school which occur outside the formal school curriculum.” This was controversial because it suggested a negative view of these activities as “unconnected to the academic curriculum.” More neutral words, such as “third curriculum,” or “the informal curriculum,” have also been tried. “Co-curriculum” is the term “preferred by enthusiasts who stress the importance of integrating student activities with classroom studies and who believe that extracurricular pursuits are as vital a part of educational experience as regular academic work.” But even this definition of “co-curricular” does not provide the clarity needed by practitioners to determine whether or not their program or service should be considered “co-curricular.”

While I doubt this will end the debate on proper terminology, I offer the following three defining characteristics of co-curricular programs:

**Intentionality.** Is your program designed to encourage student learning, or give students the opportunity to apply their learning in new situations?

**Claims.** Do you (or your institution) make claims that your program encourages or results in student learning, or contributes to an enriched educational environment?

**Outside the classroom.** Is the program outside the formal classroom?

If your program meets these three criteria, then you are running what I would define as a co-curricular program. Going back to the question about the Bursar, most Offices of the Bursar would not meet the three criteria listed above and as a result, would not be expected to be assessing its impact on student learning. It would, however, be expected to be assessing other aspects of its operation, such as customer satisfaction, efficiency and accuracy, and other operational effectiveness measures.

If you are running a co-curricular program, there are many resources available to help you develop effective and meaningful assessment. The ASSESS listserv often has regular discussion of co-curricular assessment, as does the listserv of the Student Affairs Assessment Leaders ([studentaffairsassessment.org](http://studentaffairsassessment.org)). There are many excellent books available, such as John Schuh’s *Assessment Methods for Student Affairs* (2008). The Internet has many resources available as well – visit [my website](#) or the [Internet Resources for Higher Education Outcomes Assessment](#).

*Jeremy Penn is Director of Assessment in Student Affairs at North Dakota State University, and serves as a board member for the AALHE. He can be reached at [jeremy.penn@ndsu.edu](mailto:jeremy.penn@ndsu.edu).*

## Q&A with Marilee Bresciani Ludvik

by David Eubanks



*Marilee Bresciani Ludvik, Ph.D. serves as Professor of Postsecondary Educational Leadership at San Diego State University. Marilee's most recent research focuses on using translational neuroscience to inform the design and evaluation of workshops and curriculum to decrease students', faculty, and administrators' stress and anxiety and increase their attention, emotion, and cognitive regulation, as well as enhanced critical thinking, compassion, and creativity.*

**Q:** You've worked extensively with learning assessment at the program level. Could you talk a little about signs of a well-functioning program?

**A:** Perhaps I can illustrate with an example. We use a comprehensive reflective student learning portfolio process in our program level assessment. This process includes students presenting the meaning-making they have derived from their learning journey to faculty, alumni, community partners, and current students as it relates to program learning outcomes, and students' personal and professional goals.

The written and oral portions of the portfolio are evaluated, using a rubric, individually by the student, as well as by faculty, internship and/or graduate assistantship advisors, and community partners. Our culminating questions include 1) would you hire this student or admit them into a graduate program? 2) Do you think they have demonstrated the desired learning and development at the level we expect of our graduates? If the answer isn't yes, we have a problem.

The problem is typically not identified in the artifacts themselves (e.g., if they have a classroom artifact in their portfolio and a reflection for that artifact, they passed the class, where C is a passing grade). The "problem" typically is in the way the student was able to link his or her classroom learning to applied out-of-classroom learning and reflect on that in a manner that is integrated with who they are, what they want out of their life, what their life purpose is, and for what they are grateful. This linkage is where we feel trait learning (often referred to as deep learning) can be demonstrated (as opposed to state learning often demonstrated in the moment in classes or workshops). That is the kind of learning and development we want to see from our students.

In the context of our program, we want to see evidence in student reflections and in their applied artifacts that they are wrestling with the ambiguity of the complex issues facing postsecondary education. We want them to apply theory and identify when "theory" is not enough. We want them to critique their journey (including the faculty, courses, internships, and graduate assistantship sites) with open awareness and compassion. We want to see them challenging themselves to make a difference – whatever that means to them.

**Q:** What are characteristics of a good institutional review process for program assessments?

**A:** It depends on what the institutional leadership wants to do with the evidence derived from program assessment. Some just require programs to engage in program level assessment, so they can check off an accreditation requirement. Others simply don't know what to do with program level assessment evidence – that becomes a professional development opportunity for them. Does the leadership want to use program level assessment to re-allocate institutional resources to aid programs that are not producing high level evidence of student learning and development, or do they want to reward those who are? Does that even make sense? Do they use it to re-assign faculty and administrative staff to areas of strength or inform professional development opportunities to strengthen areas of weakness?

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## Q&A with Marilee Bresciani Ludvik

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I would love to see institutional leaders use program review data to identify institutional high impact practices and provide resources for professional development, reflective practice, evaluating, documenting, and publishing assessment results. They could also re-allocate time toward community partner conversations, professional competency conversations, and re-designing courses and programs that don't seem to be "working" as intended. I find it ironic that in postsecondary education, we espouse scholar practitioner work, yet very few people – given their high volume assigned workloads - have time to reflect on their practice.

I would also LOVE TO see institutions use actual evidence of student learning and development in promotion, review, and tenure processes — as opposed to students' level of satisfaction with teachers (maybe I should change my address now!). What I mean is that a faculty member who takes the time to flip his classroom is likely going to be disliked by his students until the word spreads and the students start to see the amazing impact they are getting from this environment. Many students hate it when you invite them into the ambiguity of discovery. For example, when you invite students to dig deep inside and engage in meaning-making, they find it incredibly uncomfortable or have no idea how to "do" that, because many have been trained to simply regurgitate the answer they have been given. However, if we are supposed to be creating transformational opportunities for students, then why aren't our institutional leaders asking us to provide that type of evidence? Why aren't our institutional leaders resourcing the infrastructure support and professional development opportunities to create that? And wouldn't it be great if institutional leadership used program portfolio evidence to identify when and where it is happening? Wouldn't it be cool if those teachers made the front page of the news along with the faculty who make ground-breaking discoveries in their disciplines and the student athletes who are putting their institutional names on the map? Those are all amazing accomplishments worthy of praise. However, it is hard for me to recall the last time I saw a faculty member praised for the transformation she created in her classroom based on the learning and development evidence that was generated. Yes, students nominate professors for awards, but where is the evidence of systematic transformation?

In addition to inviting the opportunity to utilize actual evidence of student learning and development in promotion, review and tenure processes, I welcome the opportunity to see institutional leadership allocate resources towards professional development to improve learning and development based on recommendations made out of collections of student learning and development. However, please stop asking faculty to do this on top of an already full load. Re-allocate workload to create some space for faculty to learn and reflect on their own learning and apply it. And give them time to evaluate how well they applied what they learned, reflect on it, and demonstrate how they are paying attention to things and improving them. Isn't that what we consider good practice in learning and development? Shouldn't we first embody evidence that we are a learning organization (as Peter Senge describes) before we or as we ask our students to do so?

How could we also use portfolio data to evaluate the effectiveness of advisor appointments? By inviting in students' reflections of what they discovered from the appointments. What connections, thought-processes, wellness behaviors, communication processes, advocacy behaviors were advanced by the relationships you built with administrators, advisors, and coaches? Reflect on it and make the connections in your portfolios. This, again, may be the richest way for us to inform resource re-allocations.

While there is a lot we don't know about the science of learning and development; there is a bit we do know. We do know reflection is key. I would welcome institutional leaders to use program portfolio data to inform a conversation about whether they are creating an environment for their own faculty and administrators to reflect on their own learning and development and thus for their students to do so.

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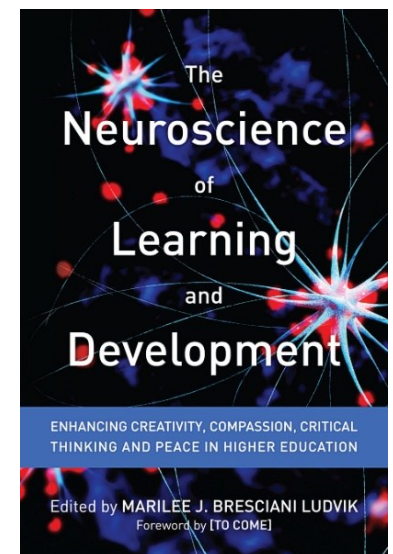
## Q&A with Marilee Bresciani Ludvik

*Continued from page 7*

The other thing I would like to see is an analysis across programs identifying similar programmatic challenges. For example, what is multi-level program assessment revealing as primary concerns for faculty and administrators' ability to foster student success? For us, it was writing, and the institutional leadership responded by allocating resources to a writing center. Another over-arching problem was access to student support services after hours; again the administrative level responded by creating more access. Now, it is student resistance to being placed in ambiguous environments where they are asked to creatively solve problems. There is quite a bit more to this picture, including students' ability to regulate their own attention, emotion, and cognition, as well as their ability to demonstrate resilience—all complex problems that require reflection on our part to resolve. While our program is piloting a solution to address this concern, our biggest challenge is carving out our own reflection time when faculty are on nine-month appointments with five courses to teach each semester.

**Q:** For the lofty goals we often associate with general education, like thinking and communications skills, or global awareness, can you talk about some effective approaches that lead to understanding and improvement in student learning?

**A:** In our forthcoming book [\*The Neuroscience of Learning and Development\*](#), we discuss desired learning and development outcomes such as critical thinking, compassion, resilience, boundary spanning, ability to embrace ambiguity, and how we might be able to foster them and evaluate them based on emerging research in neuroscience. Peter Ewell once said at one of IU-PUI's many wonderful Assessment Institute meetings, "why do we insist on measuring learning in a manner where we intentionally and thoughtfully draw a line on a log using precision instruments and in the next moment, blindfold ourselves and take a hacksaw to it?" How I interpreted this is that we think we know what precise learning and development looks like; yet, our measurement tools are less than precise. Furthermore, we know very little about how to foster the kinds of desired learning and development outcomes with the precision to which we are being held accountable. How ironic is this? We hold ourselves and have allowed ourselves to be held accountable for delivering precise learning when we don't even actually know whether our instruments are measuring it – let alone how to precisely foster it? Nonetheless, since I heard that quote, which was about twenty years ago, I have become fascinated with determining what something like "critical thinking" is and how it can be intentionally fostered and measured.



*Coming December 2015  
from Stylus*

When we break down critical thinking into attention, emotion, and cognitive regulation (and we know how to train a student in that and we know how to measure it neurologically), we can begin to foster environments more conducive to students experiencing critical thinking – at least if we think those sub-components are important to critical thinking. If we want students to become global citizens, isn't it logical that we would want to train them in compassion?

The lofty goals may no longer be so lofty IF we break them down into what we understand – using emerging neuroscience. However, we also need to be bold about what we don't know and state that clearly.

Finally, perhaps we need to ask the question, "Why are we allowing ourselves to be held accountable for learning and development that we may not know how to design, deliver, and evaluate in mass quantity?" We have designed, delivered, and evaluated *content knowledge* in mass quantities, but fostering these more complex learning and development outcomes may not be conducive to these same mass production techniques.