

Fellow is an ACE: Q&A with Brian Penprase

Yale University Yale University



Brian Penprase, a Pomona College astronomer, is a frequent presence at Yale these days, and not chiefly at the observatory.

As a 2012-2013 American Council on Education (ACE) Fellow, he's learning what it's like to be a high-level college administrator by working side-by-side with Provost and President-elect Peter Salovey.

Here Penprase talks about East Coast collegiate culture versus West Coast, his work at Yale, and why astronomers make good university administrators.

What do ACE Fellows do?

The ACE fellows program is a leadership training program for higher education in which a faculty member "embeds" in a college or university administration for a year to learn all about the institution and about academic leadership. It is a unique opportunity to study how a university works. There are also opportunities to do site visits at other campuses and interview college and university presidents and provosts, and to help identify common themes and challenges across American

higher education.

Since the fellow has an outside perspective, it is easier to see the whole institution without ties to any particular department or program. Fellows also work on projects of interest to both their host institution (Yale) and their home institution (Pomona in my case).

Are there particular leadership skills or roles you're especially interested in cultivating in the year ahead?

I am interested in how Yale navigates between its obligation to the past, in terms of its tradition and curriculum, and its obligation to the future, with its greater emphasis on internationalization, high technology, and interdisciplinary studies. I am fascinated with how a complex organization like Yale maintains its excellence, furthers its academic mission, and communicates this mission internally and to the outside world. This requires leaders who can understand both the tactical details and the larger symbolic meanings of each decision as it impacts large numbers of students, faculty, alumni and the public.

My main role at Yale is to work with the Yale-NUS College to help develop their science curriculum, and to help the Yale science faculty implement their Association of American Universities initiative on Science, Technology and Math (STEM) teaching. I also am interested in working with Yale College to study how to increase the diversity and retention of students in STEM fields, and am learning a lot from the many excellent science professors here at Yale.

Tell us about your work with Yale-NUS leaders.

I am meeting regularly with the Yale-NUS College president, Pericles Lewis, and observing how a new college creates a unique identity and culture. It is amazing to watch, and it feels at times like we are making history. I am also working with the Yale-NUS College faculty to develop a science curriculum for the new college.

That curriculum will integrate all the sciences — physics, chemistry, biology, and even earth science and astronomy — into themed courses that tackle phenomena of nature from a unified standpoint instead of from rigid disciplinary perspectives. It is really exciting to study colleges and universities from across the U.S. (including my home institutions at the Claremont Colleges) and try to build some of the best practices from these institutions into the Yale-NUS curriculum. It is exciting because you are able to pick the best possible material and design courses and even entire majors around the things in science I wish I could have studied when I was in college.

Successful university leaders have emerged from almost every intellectual discipline. What unusual perspective, skills, or habits of mind would you say astronomers offer?

There are number of astronomers or physicists who are in charge of colleges and universities, and I think astronomy is a good training for being a university leader.

We astronomers are used to contemplating the big picture — how the universe fits together over enormous expanses of space and time. This delocalizing is very humbling, and I think humility is important for leaders. It helps them perceive better the needs of their institution and can make them better listeners.

The other thing is that studying faint galaxies billions of light years away requires an ability to handle ambiguity. Unlike some other sciences, astronomers often have to be content with very faint and noisy data, and make the best of this data to draw conclusions. Being comfortable with ambiguity, and doing estimates using incomplete data has to be on the list for any potential academic leader. Certainly having experience using very large numbers helps too, as university finances regularly feature astronomical numbers.

You've spent a lot of your career on the West Coast, as a student at Stanford and as a professor at Pomona. Do you notice any major cultural differences at a university rooted in the East Coast?

The main difference I am noticing between east and west is the greater role that tradition plays at Yale than at Stanford. With 312 years of history and the deep impact that Yale has made on the nation and the world, you feel the power of that tradition, which is elevating and exciting. California is less bound by tradition, and the cultural scene there more naturally accepts the new and experimental, but perhaps is a bit less informed by the lessons and wisdom of the past.

How often are you in New Haven, and where can people find you?

I am at New Haven for the entire academic year, through June. I typically come out for about two-weeks at a time, and then fly home to be with my family. I have desks in the Yale-NUS College offices on Church Street as well as in the astronomy department and the Provost's Office in Warner House.

When you're not at Yale, what will you be up to?

When I am home, I am both spending time with my family and doing site visits at West Coast institutions to learn from their presidents and administrators. I also have some amount of work related to my astronomy research.

Are there any recent developments in astronomy that you're especially excited about, either in your work or in the field generally?

A few of my favorites are the new Mars Rover, the Kepler mission and its discovery of hundreds of extrasolar planets, and the Hubble Space telescope's ability to peer back in time to discover the first galaxies in the universe by capturing 13 billion-year-old light.

What's in store for you when you return to California full time?

As far as I know I will go back to my regular life as director of Brackett Observatory and professor of astronomy at Pomona. However, there may be some new

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opportunities that arise from the year at Yale that I have not imagined yet, and I will look forward to seeing what those might be.

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