As a new academic year looms, my thoughts turn to the mentoring and training we provide our young astronomers, as well as efforts to improve the percentages of underrepresented minorities. The Astro2010 *New Worlds, New Horizons* (NWNH) decadal report, now a year since its release, makes several observations and suggestions in chapter 4 regarding these issues, but falls short of formal recommendations because so many of them depend on departments (rather than the government or funding agencies) taking action. This is where AAS members can step up to the challenges, as many already have done.

NWNH highlights the grim reality of graduate students being caught in long postdoctoral stints while awaiting a faculty position (as emphasized by Jim Ulvestad at the Boston meeting in his invited talk on Demographics; available by video online on the members’ pages). Yet there are many career opportunities for PhD astronomers beyond academia, in research and government institutions and private corporations as well as in media, museums, planetaria, and K-12 education. One action departments need to take, if they have not already done so, is to make sure their mentoring of undergraduate and graduate students and even postdocs includes a frank and open discussion about the many different types of opportunities that an astronomy-trained person may enjoy. It is important to reinforce the thought that students do not have to reproduce their advisor’s career path in order to be considered a success. I have heard too many graduate students voice these concerns to me, and they need reassurance as well as guidance in considering many avenues. Towards this end, the January AAS meeting in Austin will feature many relevant special sessions, including one on the astrophysics postdoc job market (led by Employment Committee Chair Fred Rasio), on careers in media (past Press Officer Steve Maran), and in public policy (Bahcall Public Policy Fellow Bethany Johns). Plan to attend as many as you can, and encourage your students to attend as well. Note also that the Career Services page of the AAS site, [http://aas.org/career](http://aas.org/career), posts several non-academic career profiles from past newsletters that may also prove illuminating.

Some departments already have opportunities for graduate students to receive important training outside of traditional astronomy courses, such as in computation, instrumentation, pedagogy, science public policy, and science writing. Sometimes these are offered by the astronomy department, and sometimes in collaboration with other departments. I feel it is important to help develop the career aspirations of graduate students by giving them freedom to explore related opportunities if they so choose, and I encourage departments to consider giving graduate credit towards degrees for at least a course or two outside of astronomy per se (as I know several departments already do). This is not to diminish their astronomical training but to enhance it.

There are many online resources for guidelines on mentoring, such as the Boston AAS special session on mentoring and networking posted on [http://www.aas.org/cswa/](http://www.aas.org/cswa/). Also noteworthy is the mentor training seminar offered by the American Physical Society in collaboration with the NSF-sponsored Center for Integration of Research, Teaching, and Learning ([http://www.aps.org/programs/education/undergrad/faculty](http://www.aps.org/programs/education/undergrad/faculty)). An important
component of mentoring is a discussion of ethics. The above site includes ethics case studies; it is also useful to review with students the AAS Ethics Statement: http://aas.org/about/ethics_statement. Note that Austin will include a special session on professional ethics (AAS Executive Officer Kevin Marvel).

Regarding efforts to increase diversity, I have asked AAS Councilors Bruce Balick and Bob Mathieu and President-elect David Helfand to write brief articles for the newsletter because they are involved in some important initiatives that may prove useful to other departments. These include a program to engage underrepresented minorities in astronomy research as freshmen, a collaborative faculty program to encourage effective STEM teaching practices for diverse audiences, and a program that provides a bridge between the undergraduate degree and pursuit of a PhD, respectively. I intend these articles to be viewed not as ads for particular institutions, but as motivations for types of programs that others may wish to implement. Note that anyone can contribute to the AAS newsletter, and I encourage others to share their efforts as well; guidelines are posted on http://aas.org/publications/newsletter.php. There will also be an Austin special session on increasing department diversity (Hannah Jang-Condell).

It has been a lively and difficult summer regarding federal funding of astronomy, so I find it inescapable to talk about decadal priorities in yet another newsletter column. It is always critical for the AAS to support the recommendations of decadal surveys in order to present a united front. At the time of this writing in mid-August, the House Appropriations sub-committee on Commerce, Justice, Science, and Related Agencies (CJS, to which AAS provided testimony in March) killed the James Webb Space Telescope in the FY2012 proposed budget, and vetoed Rep. Schiff’s amendment to reinstate it. As you know from the AAS info emails, Bethany Johns and Kevin Marvel have kept in close contact with key people to monitor activities on the Hill and to decide when and how to take action most effectively. The AAS released a public statement in support of JWST (posted on the AAS homepage) and sent letters to Congressional representatives in early July because it was the top-ranked space mission from the past decadal survey and underlies much of NWNH. The American Physical Society has also released a statement. In a show of international unity for this important mission, letters of support have also come in from the International Astronomical Union, the Canadian Astronomical Society, the European Astronomical Union, the French Society of Astronomy and Astrophysics, and the Italian Astronomical Society. Jack Burns, chair of CAPP, and I visited Capitol Hill in mid-August with Bethany Johns to meet with staffers in the CJS minority and majority offices and in the offices of Reps. Wolf, Schiff, Fattah, and others, to discuss reinstatement of JWST into the budget. The NASA replan with new management structure, costs, and timelines is complete but awaits public release following approval from the Office of Management and Budget. The fact that JWST will become a NASA-wide priority will ease the burden on science divisions within the agency. Upcoming House and Senate discussions will be crucial in these matters, and more visits to the Hill by delegates from the AAS are in the works. Roger Blandford will lead a group in mid-August, as I write this. The AAS membership will be kept updated. Meanwhile it’s very important for grassroots efforts to continue to rally the public, as emphasized in AAS email alerts; Congressional staffers emphasized that they appreciate
the message of the science benefits, but need to hear from non-scientists as well as scientists that JWST is worthy of support.

While our attention has been focused on JWST since it explicitly fell out of the budget, we continue to advocate for other decadal survey priorities as well. LSST, while scheduled for a preliminary design review by NSF for late August, could also be impacted by the FY2012 proposed budget, which severely reduces the NSF Major Research and Equipment Facilities Construction line that LSST hopes to enter in a few years. And the priorities of the planetary decadal survey, Visions and Voyages, are also in jeopardy. The issue of the restart Pu-238 production for deep space missions, which Bethany has been involved in all year, is still awaiting successful closure.

As astronomy continues to become more and more international in its endeavors, by necessity because of big budgets and by design because of the advantages of collaborating on large technological projects, we all face the need for new ways to approach the hurdles of uniting in these efforts, as emphasized in chapter 3 of NWNH. An instructive article in this regard is “A Dark Age for Astronomy?” by Roger-Maurice Bonnet and Johan A. M. Bleeker from www.sciencemag.org, July 8, discussing new attempts by the IAU and COSPAR (Committee on Space Research) to establish a global program in space astronomy.

Looking ahead, we’re just a year away from the XXVIII General Assembly of the International Astronomical Union, to be held for the first time in Beijing, China, Aug. 20-31, 2012. Now is a good time to join the IAU, if you’re not already a member: http://www.iau.org/administration/membership/individual/qualification/

Applications are due by Nov. 18 to the US National Committee for Astronomy, whose chair is AAS Secretary Fritz Benedict; request information from IAU_Applications@nas.edu. This general assembly will be an exciting prelude to IAU XXIX, to be held in Hawaii in 2015 and co-hosted by the AAS, so there is much to look forward to internationally.

Meanwhile, it’s time to get your abstracts and registrations in for Austin, as we approach our exciting January meeting in the Midwest!