Physics Degrees Retain Value in Weak Economy

With the economy in a severe recession, states are cutting funds from public colleges and universities, and private universities have lost money from their endowments. Many colleges and universities have reported implementing or considering measures such as hiring freezes, salary freezes, furloughs, and other cuts to save money. In addition, many national labs are under funding pressures, and industries are under duress. Given this challenging job market, physicists may be faced with a difficult situation. But in the long run, people with degrees in physics tend to fare relatively well, and APS will do what it can to help.

“One of main roles of APS is to serve the community,” said 2008 APS President Arthur Bienenstock. “We will be looking for ways to help physicists through any difficult times ahead and welcome suggestions on how we can be of service. I think over the long haul people who have analytic skills and a creative background will be much more in demand than most college graduates. Many career fields are open to those with training in physics.”

“My basic view of the job market for physicists is that it is always very strong, but it is also well hidden,” said Mark Sincell, Chair of the APS Committee on Careers and Professional Development. Many people with physics degrees will find work in areas not traditionally associated with physics. Recent graduates may need to be patient, and consider a wider range of options in their job search.

While data are not yet available on the rates of unemployment for physicists or other scientists for this year, the job market for PhD physicists has in fact been looking down for several years, according to Roman Czujko, Director of the Statistical Research Center of the American Institute of Physics.

One indicator, according to Czujko, is the fraction of new PhDs who take postdoctoral positions. This fraction has been increasing in recent years, reaching about 60% for the classes of 2005 and 2006. The proportion of new PhDs taking postdocs also increased sharply during the mid-1980s, preceding a major recession. While some postdocs indicate that they took the position to advance their career, many accepted a postdoc position because they could not obtain a suitable potentially permanent position.

However, physics PhDs typically have very low rates of unemployment, lower than for PhDs in other fields. In general, those with PhDs in any field have lower rates of unemployment than those with less education. Nonetheless, those who graduate during a bad economy do struggle. “In general we are expecting a lot of new degree recipients to suffer,” said Czujko.

Sincell says he would still advise people who are interested in physics to get a degree in physics, rather than choose to study something more “practical.” “The primary reason one should get a physics degree is because one is interested,” he said. Sincell also points to the versatility of a physics degree. He notes that it is always challenging to find a job in a recession, but in the long run the prospects are good. The employment situation is difficult now for all fields, he said. “My experience has been that having a physics degree can work to your advantage because it is more general,” he said. “I think it doesn’t limit your possibilities. I think it does the opposite.” In fact, APS News has been running a series of articles, called Profiles in Versatility, highlighting the diverse careers of people with physics degrees.

One area where there is clearly a demand now for physicists is high school teaching. Bienenstock says that he sees indications that many more high school physics teachers will be needed in the future.

For those looking for employment, APS holds career fairs regularly at the APS March meeting and some unit meetings, and there is an online job board at careers.aps.org. Unemployed APS members can qualify for a membership fee waiver by notifying the APS membership department.

In addition, APS has a careers website that includes advice about physics careers for middle school students, undergraduates, graduate students and postdocs. The APS careers committee has been working to put more career resources online and make those resources more visible to online searches. APS is also offering a travel grant to help physics departments that bring in speakers on career issues.