CAMBRIDGE -- The president of Harvard University, Lawrence H. Summers, sparked an uproar at an academic conference Friday when he said that innate differences between men and women might be one reason fewer women succeed in science and math careers. Summers also questioned how much of a role discrimination plays in the dearth of female professors in science and engineering at elite universities.

Nancy Hopkins, a biologist at Massachusetts Institute of Technology, walked out on Summers' talk, saying later that if she hadn't left, "I would've either blacked out or thrown up." Five other participants reached by the Globe, including Denice D. Denton, chancellor designate of the University of California, Santa Cruz, also said they were deeply offended, while four other attendees said they were not.

Summers said he was only putting forward hypotheses based on the scholarly work assembled for the conference, not expressing his own judgments -- in fact, he said, more research needs to be done on these issues. The organizer of the conference at the National Bureau of Economic Research said Summers was asked to be provocative, and that he was invited as a top economist, not as a Harvard official. However, the problem of women in academia is one that Summers is confronting in his role as university president. The percentage of tenured job offers made to women by the university's Faculty of Arts and Sciences has dropped dramatically since Summers took office, prompting vigorous complaints from many of Harvard's senior female professors.

Summers has called last year's results, when only four of 32 tenured job offers went to women, unacceptable and promised to work on the problem. However, some Harvard professors have questioned his commitment to the issue.

The setting was a two-day conference at the economic research bureau, a group in Cambridge whose members include economists from all over the country. The conference, on women and minorities in the science and engineering workforce, was a private, invitation-only event, with about 50 attendees.

Summers spoke during a working lunch. He declined to provide a tape or transcript of his remarks, but the description he gave in an interview was generally in keeping with what 10 participants recalled. He said he was synthesizing the scholarship that the organizers had asked him to discuss, and that in his talk he repeated several times: "I'm going to provoke you."

He offered three possible explanations, in declining order of importance, for the small number of women in high-level positions in science and engineering. The first was the reluctance or inability of women who have children to work 80-hour weeks.

The second point was that fewer girls than boys have top scores on science and math tests in late high school years. "I said no one really understands why this is, and it's an area of ferment in social science," Summers said in an interview Saturday. "Research in behavioral genetics is showing that things people previously attributed to socialization weren't due to socialization after all.

This was the point that most angered some of the listeners, several of whom said Summers said that women do not have the same "innate ability" or "natural ability" as men in some fields.

Asked about this, Summers said, "It's possible I made some reference to innate differences... I did say that you have to be careful in attributing things to socialization... That's what we would prefer to believe, but these are things that need to be studied."

Summers said cutting-edge research has shown that genetics are more important than previously thought, compared with environment or upbringing. As an example, he mentioned autism, once believed to be a result of parenting but now widely seen to have a genetic basis.

In his talk, according to several participants, Summers also used as an example one of his daughters, who as a child...
was given two trucks in an effort at gender-neutral parenting. Yet she treated them almost like dolls, naming one of them "daddy truck," and one "baby truck."

It was during his comments on ability that Hopkins, sitting only 10 feet from Summers, closed her computer, put on her coat, and walked out. "It is so upsetting that all these brilliant young women [at Harvard] are being led by a man who views them this way," she said later in an interview.

Hopkins was the main force behind an influential study documenting inequalities for women at MIT, which led that school's former president, Charles M. Vest, to acknowledge the pattern of bias in 1999. A member of the prestigious National Academy of Sciences, she is also a Harvard graduate.

She doesn't argue that there can't be any differences between the abilities of men and women, but she said there is vast evidence that social factors do affect women's performance. For example, she mentioned studies that indicate that women score higher on math tests if there are fewer men in the room while they are taking the test.

The five other women who were offended by Summers' speech also argued that their objections were based on research that indicates women do perform at the highest levels when given the same opportunities and encouragement as men.

"Here was this economist lecturing pompously [to] this room full of the country's most accomplished scholars on women's issues in science and engineering, and he kept saying things we had refuted in the first half of the day," said Denton, the outgoing dean of the College of Engineering at the University of Washington. Next month, Denton will become the new head of UC Santa Cruz.

Besides Hopkins and Denton, the participants who criticized Summers to a Globe reporter were Anne C. Petersen, former deputy director of the National Science Foundation; Catherine Didion, former executive director of the Association for Women in Science; Donna J. Nelson, chemistry professor at the University of Oklahoma; and Sheila Tobias, a feminist author and proponent of women in science.

The organizer of the conference, Harvard economist Richard B. Freeman, described Summers' critics as activists whose sensibilities might be at odds with intellectual debate.

Summers is known for being confrontational and has stirred up numerous controversies before, most famously when he questioned African-American studies professor Cornel West's scholarship and teaching. West subsequently took a job at Princeton.

"We are lucky enough to have a president who is capable and willing to have these discussions rather than talk in bureaucratese," Freeman said. "I predict he will get more things done on women and faculty issues because he's a straight-talking, no-baloney president."

Three other participants reached by the Globe also said they were not offended by Summers' comments, which they felt reflected mainstream economic theories. They were Sarah Turner, an economist at the University of Virginia; Paula Stephan, an economist at Georgia State University; and David Goldston, chief of staff for the US House Committee on Science.

Summers' third point was about discrimination. Referencing a well-known concept in economics, he said that if discrimination was the main factor limiting the advancement of women in science and engineering, then a school that does not discriminate would gain an advantage by hiring away the top women who were discriminated against elsewhere.

Because that doesn't seem to be a widespread phenomenon, Summers said, "the real issue is the overall size of the pool, and it's less clear how much the size of the pool was held down by discrimination."

Summers ended his talk by describing some of the efforts Harvard is making to improve its hiring record and help women balance work and family.

"I believe that it's an important part of what I do to encourage frank scientific discussion," he said. "I would hope and trust that no one could [doubt] that we are absolutely committed to promoting the diversity of the faculty."

Marcella Bombardieri can be reached at bombardieri@globe.com.

© Copyright 2005 The New York Times Company