## Campus News from the Faculty Senate By Steven Craig, President

This summer the Faculty Senate leadership concentrated on working with the administration and Regents to focus attention on building the research capacity and reputation of the University. One issue that arose, almost surprisingly, is to think about the cost and benefit structure of a serious research university compared to an exclusively teaching university or college. A research university is considerably more expensive than an institution that focuses solely on teaching. For example, to effectively compete with Big 10 universities, UH would need to hire approximately 400 more faculty without any new students. This would entail approximately a doubling of in-state tuition. So the question is why would any student pay double for their education at a first rate research university, if they could obtain that same education from a bargain priced teaching university.

It appears, however, that the bargain is at the first rate research university with the higher costs. The first sign is a market signal. Competition to get into excellent research universities, despite their much higher tuition costs, is much more intense than at teaching institutions. Clearly, then, students want the education that can be obtained at the serious research universities. Nonetheless, the fundamental reasons for the much higher demand are worth examining.

The fundamental difference between teaching and research universities is creativity. While a student can take a wide variety of subject courses at a teaching university, there are no courses in creativity. Even if a person at a teaching institution manages to keep abreast of the field as it changes from when the terminal degree was obtained, faculty at teaching universities are not using the knowledge they are trying to impart.

Research universities, on the other hand, create an entire culture of innovation and change. Research is the search to learn something we do not already know. The usual process to answer these questions is a novel, or creative, way to apply the knowledge that already exists. It is the novel application of knowledge that distinguishes research universities. Thus one of the central key inputs into creating a first rate research university is to create an atmosphere of learning and creativity. That is, research universities create an environment where people get stimulated to develop a new way of applying the world's knowledge. When students interact with people in the classroom who are creating knowledge, they are also implicitly learning about how that knowledge is created. It is in this way that research universities teach creativity and problem solving, which is the key input for a student to be successful after college.

It is this creative environment that we are striving to create on this campus. An atmosphere where literally lifelong learners, aka faculty, are stimulated to expand what we know into new arenas. This atmosphere is a combination of faculty, graduate students, and undergraduate students.

Thus UH needs to grow its faculty, and give these faculty every reason to be on campus as much as possible. UH also needs to continue to develop its graduate programs, both as an input and as an output that are core components of the creative environment. Finally, UH needs to focus on building an environment for undergraduate education consistent with the research mission. This environment is best served by full time students who are striving to learn creative problem solving skills.