THE HAWAI`I PLANNING CONTEXT

SIGNIFICANT EXTERNAL ISSUES

GLOBAL AND NATIONAL ISSUES

Major global and national trends of particular relevance to the UH Community Colleges are noted below:

- **Economic** - The world economy is becoming more international and interrelated. The historic focus on local or national economies appears to be overtaken by the advantages of technology, human resource management, and resource strategy in the global economy. Consumers now insist on products that are low cost, high quality, and innovative, whether from China, Europe, the United States, or Mexico. The net result of this powerful transformation is that the United States industry and business are de-layering, restructuring, retraining employees, and teaching them new skills as well as basic math, science, reading, and critical thinking to improve productivity and total quality.

There is a growing world-wide concern about the effects of human activity on the phenomena of “global warming,” and the steps that need to be taken to reduce the production of carbon dioxide. It is expected that any actions taken to deal with these complex issues will increase the cost of fossil fuels. This will likely drive issues of education and training as people and organizations develop processes designed to promote conservation and sustainability of limited resources.

- **Social** - There are continuing challenges from changes in the nature of the U.S. society. The traditional family of a working husband, a wife at home, and two children now represents only 6% of the U.S. families. The rise of the single parent family, poverty among children, teenage pregnancy, crime, and the growth of an underclass are strong social forces requiring attention by government, the private sector, postsecondary education, and citizens.

- **Political** – The federal budget deficit, including the unbudgeted costs of the war in Iraq and the anticipated expenditures for Medicare and Social Security due to the aging of the population, will constrain future expenditures for non-defense and other entitlement programs. There will be declining federal support for programs related to education and training, and a greater emphasis on accountability for specific program outcomes. This will require the establishment of new resource allocation and accountability processes to demonstrate effectiveness, and the development of new sources of financial support, including user fees and private giving.

- **Educational** – Education is increasingly recognized as a driver of economic development. Profound changes in the education levels of the Organization for Economic Co-operation and Development (OECD) member countries are causing a reexamination of the fundamental nature of education in the U.S. The
leadership of this country has placed increasing emphasis upon the quality and effectiveness of education. The business community has experienced the need to participate in the preparation of students for jobs and careers. Means of success and excellence of students are shifting toward the ability to self-manage and deal with change; rather than resting on past laurels, continuous improvement of the education system is needed to maintain global leadership in education, and multi-cultural education has become a necessity for our students to compete in both the global environment and the increasingly culturally diverse U.S.

- **Technological** - In addition to a shift from an industrial economy to a postindustrial services oriented economy, the U.S. is placing increasing emphasis on the use of telecommunications and Internet technologies in all sectors of the economy. The quest for global competitiveness will focus on the effectiveness of U.S. to enhance research and development and the rapid application of state-of-the-art technology. The deployment of broadband Internet access has made massive information and education resources available on demand almost anywhere in the world. In addition, it has created a substantial demand for employees with technical skills.

**STATE AND LOCAL ISSUES**

UHCC must be attentive and responsive to major issues that will affect the nature of who we serve, the type of programs and services we deliver, and sources of support necessary to acquire the resources we need to serve the people of Hawai‘i.

- **Economic** - Major changes in Hawai‘i’s economy and workplace have resulted in a transformation in the kind of skills and knowledge one needs to be successful. Employment conditions today require skills which are in many cases not evident in today’s island labor market.

In today’s economy, plantation agriculture has declined significantly in terms of acreage, production, and economic value (Figure 1). In contrast, visitor expenditures grew from $2.875 billion in 1980 to $10.862 billion in 2004 (State Data Book 2006). The spectacular increase in visitor expenditures has transformed the Hawai‘i labor market. Service industry job growth has been dramatic. Employment in services has grown from 48,310 in 1970 to 364,800 in 2006 (38% of the total jobs in the state), and wholesale and retail trade employment has grown from 61,044 to 134,800. During this same period, agricultural employment increased slightly from 12,572 to 15,600. In 1970, agriculture jobs comprised 4.4% of the civilian workforce, but has declined to just 1.6% of the workforce in 2006 (EMSI, June 2007).
It is important to note that while Hawai’i’s major growth sector since 1970 has been the Service Industry, many of the jobs produced during that period required individuals with significant specialized education and training beyond high school. These jobs included: professionals such as those in health, education, and technical fields; managers and administrators; clerical and administrative support specialists; audit and financial specialists; etc. In addition, between 1969 and 2005, self employment grew from 47,000 to about 88,000 10% of the Hawai’i workforce.

According to the State Department of Business, Economic Development, and Tourism (DBEDT), Hawaii is facing serious structural changes in both its economy and workforce that threaten the long-term standard of living in the region. Research to date has identified four major structural limits that have trapped Hawaii in a low-wage, low skilled economy. These include: (1) a Job Quality Gap, (2) a Worker Supply Gap, (3) a Worker Preparation Gap, and (4) a Poorly Performing Educational Pipeline.

Hawaii’s job quality gap is a result of higher-value jobs in sugar, pineapple, and manufacturing being replaced over the last 35 years by a lower-paying, tourism-related service sector. Consequently, Hawaii’s per capita personal income fell from 124% of the U.S. in 1970 to 95% of the U.S. in 2000. Adjusting for higher price-levels in island economies such as Hawaii’s, our per-capita income is probably closer to 75% of the U.S. average in terms of purchasing power. This, coupled with the tendency of sectors such as retailing and food service to offer mostly part-time, low-wage jobs, has tended to trap Hawaii in a predominantly low-wage, low skilled region.

In its 2003 Development Report Card, the Corporation for Enterprise Development (CED) ranked the Hawaii region: 43rd in the nation for growth in average pay; 47th in industrial diversification, 49th in home ownership, 50th in long-term employment growth and 50th in involuntary part-time employment. These trends must be reversed by revitalizing the capacity of our business and entrepreneurial sectors to generate new, high-valued goods and services and higher-skilled jobs. The stark alternative is increasingly losing our highly educated youth to other regions and the stagnation of our standard of living.

As with other regions in the country, Hawaii is experiencing the beginning of a long-term worker supply gap as the baby boom generation begins to leave the labor market. However, ours’ we believe is more intense due to the significant “brain drain” of younger workers to the U.S. mainland and to Asia. Currently, only about 10,000 to 12,000 youth (Figure 2) are completing school and eligible to enter our labor market per year; a number that is projected to decline through 2016. Economic Modeling Specialists, Inc. (EMSI) has projected that through 2017, approximately 28,000 job openings per year will occur.
Most of that demand will be in occupations requiring more education than high school, thus creating a new worker supply gap. This gap is expected to widen after 2012 as the baby boom begins to reach full retirement age. Unless addressed, the combination of an overall labor shortage and out-migration of educated youth (brain drain) is expected to create a crisis in the Hawaii regional economy within the next five to ten years.

In addition to the problems of quality of jobs and worker shortage, Hawaii suffers from a worker preparation gap. Simply put, the region is not preparing its youth for the types of higher-skilled jobs that we intend to develop in the region and that are necessary to meet global competition. While we prepare a sufficient number of individuals with baccalaureate degrees, they are not in fields where we have persistent and growing needs such as education, nursing, electrical engineering, and health sciences. When we look at the workplace demand for individuals with vocational certificates and two-year technical degrees, the gap between demand and supply (Figure 3) highlights a need to increase degree production in a number of fields. Getting a sufficient number of qualified students to enter and complete these programs is a potential barrier to the future success as a state.

In addition to preparing individuals with vocational certificates and two-year technical degrees, there are more than 6,000 jobs to be filled annually that require either a degree plus work experience, moderate-term, or long-term on the job training, including: skilled construction workers, police and fire fighters, first-line supervisors, restaurant cooks, tour guides, sales representatives, bookkeeping clerks, bus and truck drivers, etc. Many of the individuals seeking to fill these jobs participate in established non-credit education and training opportunities such as those offered through community colleges.

According to the National Center for Educational Statistics (NCES) Hawaii’s averaged graduation rate for high school freshmen (2002-2003) is about 71% compared to a national average of 74%. NCES and Census data for 2000 show that only 38% of high school freshmen in the region will enroll in post-secondary education within four years compared with 52% among the top states in this category. The first year community college drop out rate in the Hawaii region is nearly 20 percentage points higher than top states. Only 46% of Hawaii college students will complete a bachelor’s degree within 6 years compared with 64% in top states. These trends can be reversed, but only by addressing the root causes -- inadequate preparation at the high school level and lack of employer incentives for incumbent worker education.

- **Population** - The 2000 U.S. Census shows Hawaii’s population has grown to 1.21 million — up 9.3% over 1990 despite the state’s sluggish economy during much of the decade.
Growth on O’ahu, where 876,156 people live, was less than 5%; the Big Island remained the second most-populated county in the state, with 148,677 residents, an increase of nearly 24%; Maui County’s population grew almost 28%, to 128,094 residents; On Kaua‘i, the Census counted 58,463 residents, an increase of more than 14%.

More than 21% of the population now identify themselves with two or more ethnic groups, the highest percentage in the country; almost a quarter of the state reported at least some Native Hawaiian ancestry, and 58% of the state’s population reported being at least part Asian. About 39% of the state reported some white ancestry.

The state’s population is expected to continue to grow and become more diverse; however, there are two trends that are cause for concern. The first is the aging of the population and the impact on the workforce and health care services. In the decade following statehood, there was significant growth in the economy resulting in thousands of individuals being employed in both the public and private sectors. Most of those individuals are expected to leave the workforce within the next decade. This exodus will have the biggest impact on those industries that are dependent upon individuals with significant technical and professional education. These include (Figure 4) production, installation, maintenance, and repair; education and training; healthcare; management and finance; construction; etc.

The second trend that is a cause for concern is the exodus from the state of the skilled core of the population, those aged 30 to 64. Hawai‘i has built its current economy on our ability to import labor from around the world and the U.S. mainland. Since 1852, with the arrival of the first Chinese laborers, successive waves of immigrants have been key contributors to the success of the state’s agriculture and tourist-oriented economy. However, the growing gap between the cost of housing and the wage structure in the state is causing a key component of a vibrant workforce, the skilled mid-career worker, to leave the state.
While the data indicate that Hawai‘i is still able to attract individuals aged 18 to 29 into the state, the same data show Hawai‘i as a net exporter of individuals aged 30 to 64. As a consequence there is a projected decline in the total state population aged 35 to 54 (Figure 5).

Replacing these skilled workers will require increased training opportunities for the current workforce so they can be prepared to fill in behind those individuals leaving the workforce and the state. It is projected that Hawai‘i will need nearly 2,500 individuals with either vocational certificates or technical associate degrees to enter the workforce annually through the year 2017, to meet both growth in the economy and to replace individuals who are expected to leave the workforce. Currently public and private postsecondary institutions award approximately 1,900 such degrees annually, a shortfall of approximately 600 individuals. Unfortunately, there has been a decline in the number of Career Technical Education (CTE) majors since 1999.

**Education** - Improving the quality of public K-12 education is still one of the top issues of community concern. While a number of efforts have been initiated, such as school-community based governance, charter schools, student performance standards, student assessment, etc., national measures of student performance have significantly lagged behind community and employer expectations.

The lack of worker preparation and the absence of more high-paying, high skilled jobs in the regional economy are linked to a poorly performing education to work pipeline. A pipeline that fails to ensure an adequate supply of educated and trained workers, the base upon which a growing economy can be built. At every point of the education-to-work process, Hawaii under performs the national average and substantially under performs the leading states. For example, based on 2004 data (National Center for Public Policy and Higher Education), only 13% of 9th graders will finish high school and graduate from a post secondary institution within 150% of the expected time. This compares with 18% nationally and 29% for the best performing states. Beyond the school-aged youth, the Hawaii region is not directing a sufficient number of incumbent workers back into post-secondary training to build their skills and earning potential. In 2006, only 3.6% of adults aged 25 to 44 were enrolled in a post-secondary education program compared with 5.1% for the top ten performing states. In order for the economic transformation needed for the Hawaii region to occur, this leaky pipeline must be patched.

A recent national state-by-state assessment, Measuring Up 2006, reported (Figure 6) that while we have high school graduation rates that mirror the top performing states, students’ academic performance fall well behind the leaders. The result is, a great many adults need to improve their basic literacy skills to be successful either continuing their education, or in the changing Hawai‘i workplace. The following are the highlights of the Hawai‘i report:

<table>
<thead>
<tr>
<th>PREPARATION</th>
<th>HAWAII 1992</th>
<th>2006</th>
<th>Top States 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Completion</td>
<td>94%</td>
<td>94%</td>
<td>94%</td>
</tr>
<tr>
<td>16- to 24-year olds with a high school credential</td>
<td>7%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>K-12 Student Achievement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8th graders scoring at or above &quot;proficient' on the national assessment exam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>in math</td>
<td>15%</td>
<td>18%</td>
<td>38%</td>
</tr>
<tr>
<td>in reading</td>
<td>15%</td>
<td>15%</td>
<td>38%</td>
</tr>
<tr>
<td>in science</td>
<td>15%</td>
<td>18%</td>
<td>41%</td>
</tr>
<tr>
<td>in writing</td>
<td>15%</td>
<td>18%</td>
<td>41%</td>
</tr>
<tr>
<td>Low-income 8th graders scoring at or above &quot;proficient' in the national assessment exam</td>
<td>7%</td>
<td>7%</td>
<td>22%</td>
</tr>
</tbody>
</table>

Source: The National Center for Public Policy and Higher Education
• Preparation. A very high percentage of Hawaii’s young adults earn a high school diploma or a General Education Development (GED) diploma by age 24. However, Eighth graders in Hawaii perform very poorly on national assessments in math, science, reading, and writing, indicating that they are not well prepared to succeed in challenging high school courses. Hawaii is among the lowest-performing states in science and reading. Low-income 8th graders perform very poorly on national assessments in math.

they are not well prepared to succeed in challenging high school courses. Hawaii is among the lowest-performing states in science and reading. Low-income 8th graders perform very poorly on national assessments in math.

• Participation. The chance of Hawaii high school students enrolling in college by age 19 is low, because few students graduate from high school and enroll in college. The chance of enrolling in college by age 19 has declined by 28%—the steepest decline among the states on this measure. The state’s decline is due to a decrease in the percentage of students graduating from high school, and a drop in the percentage of graduates going on to college.

A fairly small percentage of working age adults (ages 25 to 49) are enrolled part-time in college-level education or training.

The state’s population is projected to grow by 11% from 2005 to 2020, below the national rate of 14%. During approximately the same period, the number of high school graduates is projected to decrease by 8%.

In Hawaii, 340 more students are leaving the state than are entering to attend college. About 31% of Hawaii high school graduates who go to college attend college out of state.

• Affordability. Hawaii has held the line on the share of family income, after financial aid, needed to attend its public two-year colleges, making it one of the best performing states in this area. The state’s investment in need based financial aid is very low when compared with top-performing states. However, Hawaii offers low-priced college opportunities.

• Completion. Large percentages of first-year students in community colleges and four-year colleges and universities return for their second year. Only a fair percentage (47%) of first time, full-time college students complete a bachelor’s degree within six years of entering college. Over the past seven years, the percentage of first-time, full-time college students earning a bachelor’s degree within six years of enrolling in college has declined, in contrast to a nationwide increase of 6%.

During the past 12 years, however, the proportion of students completing certificates and degrees relative to the number enrolled has increased substantially (by 26%).
• Learning. Hawaii’s underperformance in educating its young population could limit the state’s access to a competitive workforce and weaken its economy over time. As the well-educated baby boomer generation begins to retire, the young population that will replace it does not appear prepared educationally to maintain or enhance the state’s position in a global economy. Hawaii continues to fall behind in graduating 9th graders from high school within four years and enrolling them in college by age 19—and these rates have dropped by double digits since the early 1990s.

The need for adults to improve their basic literacy skills is evident from the entering student placement data summarized in Figure 7. All new UHCC students (approximately 5,000 individuals) are expected to take placements tests in mathematics and English. On the basis of their performance, students are eligible to enroll in either remedial, developmental, or baccalaureate level mathematics and/or English classes. In addition, placement levels also serve as prerequisites for other selected courses or programs.

Figure 7
Fall 2007 Recent High School Graduates
COMPASS Test Takers
Decline in the UHCC “Going Rate” - Over the past decade there have been significant changes in Hawai’i’s economy and employers’ expectations regarding what constitutes a qualified worker; a change in the mix of low-skilled and high-skilled job, resulting in an increase in the number of technical, professional and managerial jobs in the state; and increased availability of new education and training opportunities developed in response to these changes. However, there has been a decline in the student “Going Rate” from the public high schools to the Community Colleges (figure 8). Given the increasing connection between post high school education and training and success in the workplace, this trend, if it continues, will make it increasingly difficult to employ a qualified workforce.

Emerging Opportunities - The Hawai`i region has an abundance of unique and competitive natural resources, the basis on which new, high-valued innovation- and knowledge-intensive industries can be developed and sustained. To successfully capture these opportunities, investment in developing a higher-skilled workforce is required. As detailed by DBEDT, the Hawai`i region has targeted five major emerging growth sectors:

- Life Sciences/ Biotechnology, particularly in communicable tropical and infectious diseases and health and wellness issues for the Asia and Pacific region;
- Information Technology, leveraging investments already made in Hawaii’s fiber-optic and satellite communications infrastructure;
- Film and Digital Media, exploiting Hawai`i’s trans-Pacific location and emergence as one of Hollywood’s preferred “back lots”;
- Dual-use technologies, leveraging significant R&D investments being made by the defense sector in Hawaii, and
- Diversified Agriculture, based on remnants of Hawaii’s plantation agriculture. In addition, real short-term opportunities exist in ocean and marine science and biotechnology; alternative energy, including renewable-to-hydrogen, development; and astronomy/space-related research.

Hawai`i also has the opportunity to fuse more innovation, knowledge-intensive tools and technology with its traditional sectors, tourism and agriculture. The challenge for Hawai`i’s tourism sector is to innovate and upgrade and improve its products against new international competitors. Traditional travel and leisure is giving way to the demand, especially among the “boomer” and “Gen-X” travelers, for more contemporary and technologically “connected” experience. The U.S. travel and hospitality industry is only as of late beginning to adopt technology.
SIGNIFICANT INTERNAL ISSUES

PROGRAM DEMAND

Major global and national trends of particular relevance to the UH Community Colleges are noted below:

- **Credit Enrollment** – Between 1994 and 2000, severe budget cuts resulted in fewer opportunities for students to take classes if they entered the community colleges and enrollment dropped to less than 24,000 students in 2000. Significant factors contributing to this decline included limited class offerings due to budget limitations and changes in welfare regulations that forced many individuals to work rather than continue their education. One consequence of this decline in enrollment was a subsequent reduction of graduates in technical fields. This reduction likely has contributed to worker shortages in a growing number of fields. In 2006, the Legislature appropriated funds to allow the colleges to increase their course offerings to promote increased enrollment. Fall 2008 enrollment grew by nearly 3,200 students over the fall 2006 enrollment. Between 2000 and 2008, enrollment grew about 20% to 28,500 (Figure 9).

- **Student Majors** - Since the community colleges were established in 1964 by transferring the DOE technical schools to the University, preparing individuals for employment in technical fields has been a major mission. However, for more than a decade there has been a decline in the number of students pursuing degrees and certificates in career and technical education (CTE) programs (fig. 10). This has contributed to the growing shortage of qualified workers, particularly considering the likelihood of significant retirements in critical fields highlighted in Figure 4 above.
• **Non-Credit Registrations** – The Continuing Education and Training programs are organized to offer non-credit classes and programs that allow individuals to improve their work-related skills and knowledge. This is a particularly important function given the major changes that are taking place in the Hawai‘i workplace. Non-credit student registrations had some decline in the mid-1990s as more private sector training providers entered the Hawai‘i market, particularly in the computers and computer software areas, and the slowdown in construction that resulted in fewer apprentice enrollments. While non-credit registration was over 71,000 in AY 2000, they have shown a steady decline to about 42,000 in AY 2007 (fig. 11). One factor contributing to this decline has been Hawai‘i’s low unemployment rate that has made it difficult for working adults to make time available to participate in education and training. The Community Colleges account for about 54% of the total University non-credit registrations.

![Figure 11: Non-Credit Registrations](image)

Source: MAPS

• **Student Attendance Status** – As many of our students are working adults with family obligations, we have had a growing number of part-time students. The proportion of part-time students showed steady growth through 2005 when it reached 60.6% of the total enrollment (fig.12). This proportion is now comparable to the U.S. average for community colleges.

![Figure 12: Student Attendance Status](image)

Source: MAPS Fall Enrollment Report
NCES Educational Statistics Table 179: Most recent report
OPERATIONAL EFFICIENCY

- **SSH per FTE Faculty** - The ratio of Student Semester Hours (SSH) to FTE Faculty (fig. 13), which increased steadily in both General Pre Professional (GPP) and CTE programs in the early 1990s in response to significant resource restrictions, has shown a downward drift since 1997, particularly in the CTE area. In fall 2004, the SSH per FTE CTE faculty stood at 171 a decline of 12%, while the SSH per FTE GPP faculty was 299, a decline of 9%.

- **Percent of Small Classes** - The percent of small classes (less than 10 students) has been an issue for the CTE programs. While the percent of small classes in the GPP has generally been less than 5% of the classes taught in the fall semester, it has been close to 15% in CTE classes over the past decade. Part of this may be attributed to the downward trend in CTE enrollment, especially the number of CTE students who persist into the second year where most of the low enrolled classes are found.

- **Average Class Size** – Average class size is a traditional measure that provides a general indicator of institutional efficiency. Increased class enrollment ceilings in selected classes and programs have allowed more student registrations in fewer classes, thus increasing average class size in our CTE programs. Between fall 1991 and fall 1998, average class size in CTE programs increased from 16 to 18 (12.5%), and in GPP courses from 22 to 25 (13.6%). Average class size has declined 8% in GPP courses since 1998 (Figure 14). Part of this decline was the effect of the most recent faculty collective bargaining agreement that reduced the normal teaching assignment from 30 semester hours per year to 27. In fall 2005, the average class size GPP classes was 23 and for CTE classes was 18.
PROGRAM OUTCOMES

- **Student Ethnicity** – It has been a system goal of the Community Colleges to provide access to individuals previously under-represented in higher education. In Hawai‘i, that has included Hawaiians and Filipinos. A concerted effort in dealing with identifying and removing barriers to minority student enrollment, retention and success in the late 1980s appears to be having success. Between 1996 and 2006, Hawaiian student enrollment increased significantly (Figure 15). Hawaiian and Filipino students now represent the largest ethnic groups in the Community Colleges.

- **Degrees Awarded** – Given relatively flat student enrollment between 1997 and 2007, the total number of degrees awarded has also grown slowly (Figure 16). This growth has been limited to Associate in Arts degrees (8%). There has been a decline in CTE focused Certificates of Achievement (-20%) and Certificates of Completion (-9%), an outcome that reflects the decline in CTE majors. Continued declining enrollment and degree completion in CTE programs are potential barriers to our future success as a state.

While there has been success over the past decade in increasing the enrollment of Native Hawaiian students, there has not been a similar increase in the rate of graduation. Figure 17 highlights the success gap between Native Hawaiian students and other ethnic groups enrolled in the community colleges. The UHCC Achieving the Dream Initiative addresses closing the graduation gap between Native Hawaiian students and other students.
• **Students Transferring** – A major mission of the community colleges is to prepare students for transfer to baccalaureate level programs. The ability of students to transfer smoothly within the UH system is well established in Board of Regents and UH Executive policies. Increasing the flow of students between the community colleges and the UH baccalaureate colleges and their future success is a strategic priority within the UH and the UHCC.

![Figure 17](image1.png)
**Graduation by Ethnicity**

Each year community college students leave the community colleges and transfer to other post-secondary institutions both within the state and on the mainland as reported through National Student Clearinghouse (NSC) data (the number is understated, as Hawai‘i’s largest private institution does not currently participate in the NSC). Figure 18 displays student enrollment patterns three years after leaving. Transfers to other UH community colleges continues to be the largest with transfers to UH 4-yr institutions second.

![Figure 18](image2.png)
**Students Transferring**

Source: National Student Clearinghouse.
ORGANIZATIONAL AND FINANCIAL ISSUES

• **Staffing and Organization** - Between FY 1998 and FY 2008, total UHCC General funded staffing increased from 1,479.25 to 1,771.00 full time equivalent FTE positions, an increase of 19.7%. This increase occurred at the community college campuses; authorized positions for UHCC system administration decreased by 11.0%, from 40.75 to 36.25 FTE.

Along with the State, a major issue facing our colleges is the aging of our workforce and the need to be prepared to replace a significant number of faculty and executive personnel who are reaching retirement age. A recent report indicated that more than 20% of UHCC faculty will be eligible to retire beginning in 2008 (Figure 19). While retirement is an individual decision, it is anticipated that once the current faculty collective bargaining agreement is completed that there will be a significant number of retirements.

• **Revenues** - Between FY 2001 and 2008, revenues from all sources grew from $123,534,321 to $209,884,510, an increase of 69.9% (Figure 20). Although there have been fluctuations in the proportion of General Fund revenue to total revenues over the years, it is at the same 54.8% level in FY 2008 ($115,060,225) as it was in FY 2001 revenues ($67,684,615). However, there were shifts in the sources of other revenues. Tuition and fee revenue increased from 14.8% of total revenues in FY 2001 ($18,262,069) to 15.8% of total revenues in FY 2008 ($33,080,482). Extramural contract and grant revenues increased from 9.9% of total revenues in FY 2001 ($12,201,338) to 11.9% in FY 2008 ($25,044,015).

Source: OVPCC Budget Office
• **Revenues Relative to Peers** – As part of a study commissioned by the University system, the National Center for Higher Education Management Systems (NCHEMS) examined the revenues of the major units of the University system relative to a set of peer institutions (Figure 21). Using nationally reported data for the 2006 fiscal year it appears the UHCC revenue base is about $475 per FTE student behind the average of its peer institutions, despite the fact that our cost of living is about 25% higher than the national average. When the $475 per FTE student is multiplied by the number of FTE students during that same year, the total annual difference appears to be about $7.5 M. When one looks at UH Hilo and UH Mānoa relative to their peers, both have total FTE revenues that exceed the average of their peers; UH Hilo by $971 per FTE student and UH Mānoa by $1,834 per FTE student.

A similar study conducted in 2000, also conducted by NCHEMS, pointed out that,

Four-year campuses get relatively more funding from the state and less from tuition than their peers. The reverse is true for the Community Colleges. It should be noted that this pattern is counter to that normally found. More typical are patterns in which students contribute a greater share at four-year institutions and a lesser share at two-year institutions. Hawaii institutions receive far less revenues from sources other than tuition and state appropriations than peer institutions. This is true regardless of peer groups used as the basis of comparison and is for all campuses.

• **Expenditures** – Between FY 2001 and FY 2008, total expenditures and encumbrances (E&E) from all sources grew from $129,246,750 to $198,347,505, an increase of 53.5%. General fund E&E increased significantly from $67,684,610 in FY 2001 to $114,786,026 in FY 2008, an increase of 69.6%. Tuition and Fee E&E increased from $18,393,736 in FY 2001 to $28,524,609 in FY 2008, an increase of 55.1%. Extramural fund E&E increased from $19,503,227 in FY 2001 to $27,051,568 in FY 2008, an increase of 38.7%