



ENVIRONMENTAL SCANNING

**Hagerstown Community College
Office of Planning & Institutional Effectiveness
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August 27, 2008

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INTRODUCTION

What is Environmental Scanning?

An environmental scan is the process of examining external trends, issues, and events in order to determine their impact upon an institution. Environmental scanning focuses on the identification of emerging issues, situations, and potential pitfalls that may affect an organization's future. This is what makes conducting a scan of the changes occurring in the international, national, state, regional, and local environments so critical.

Communicating external information about issues that may potentially influence an organization's decision-making process is the goal of environmental scanning. The information gathered, including the events, trends, and relationships that are external to an organization, is provided to key managers to be used to guide management in future plans. It is used to evaluate an organization's strengths and weaknesses in response to external threats and opportunities. In essence, environmental scanning is a method for identifying, collecting, and translating information about external influences into useful plans and decisions.

Environmental scanning is the acquisition and use of information about events, trends, and relationships in an organization's external environment, the knowledge of which would assist management in planning the organization's future course of action. (Choo, 2001)

Trends evolve due to change. The following needs are “drivers” of trends:

- ◆ The need to **save time**
- ◆ The need to **reduce cost**
- ◆ The need to do things **faster**
- ◆ The need to make things **easier** to use
- ◆ The need to improve **safety** and **reliability**
- ◆ The need to lessen the impact on the **environment**

Environmental scanning by the Planning and Institutional Effectiveness Department enables the College to look at emerging, up-to-date demographic trends in the service region, state and nation, global trends, economic/business data, social trends, and enrollment potential by student type/populations, course or program potential (credit and noncredit). Information from environmental scanning activities helps establish a link between strategic planning and projected trends, resulting in data-based decisions to improve and update programs and services.

The environmental scan is meant to be instructive and not prescriptive. It is a combination of what has happened in the recent past, quantitative data that may be useful to describe the present and an ample amount of qualitative data to round out the

study. When administrators, faculty, and staff are informed of changes, they are better able to prepare for the changes by determining future strategic institutional directions.

The scan sets the stage for us to discuss a preferred future for Hagerstown Community College. With this information during planning discussions, we can better anticipate opportunities, provides lead time to be proactive when presented with challenges and overall aids the institution in creating a positive and forward looking culture.

This report has been divided into six broad categories: Demographics, Economy, Education, Workforce and Economic Development, Technology, Public Policy and Accountability. Listed below each of these areas are trends, facts, findings, and implications which could or will affect Hagerstown Community College. In many cases, the information and data can be cross listed. No one can predict the future, but by understanding and examining the trends, issues, and events that impact the life of the community college, we can begin to create a plan that looks to the possibilities for the College's future.

DEMOGRAPHICS

United States - National

- ◆ According to the US Bureau of the Census, the resident population of the United States, projected to August 25 is **304,969,536**. At such a fast growth rate, the US population will likely hit 400 million in 2043. (The population estimates are most likely undercounted with the number of illegal immigrants living in the US.)

- ◆ According to the US Census Bureau, the following components affect our population:
 - one birth every 7 seconds
 - one death every 13 seconds
 - one international migrant every 29 seconds
 - net gain of one person every 10 seconds

- ◆ If the current trends continue, the population of the United States will rise to 438 million in 2050, from 296 million in 2005. 82% of the increase will be due to the arrival of immigrants and their US born descendants.

- ◆ Nearly one in five Americans (19%) will be an immigrant in 2050, compared to 12% in 2005.

- ◆ Hispanics will make up 29% of the US population in 2050, compared to 14% in 2005. Hispanic's share of the population will increase because they have higher birth rates than the overall population as Hispanic immigrants are younger than the nation's aging baby boomer population.

- ◆ It is projected that African Americans will remain 13% of the population and Asians will increase ~~go~~ from 5% to 9%.

- ◆ The non-Hispanic white population will increase more slowly than other racial and ethnic groups. Whites will become a minority of 47% by 2050. They made up 85% of the population in 1960.

- ◆ The gap between the number of working-age people and the children and seniors who depend on them will widen as boomers age. There will be 72 young and elderly for every 100 people of working age by 2050, compared to 59 in 2005.

- ◆ The trend towards a population that is living longer is already creating high demand in products and services tailored to this demographic. Home healthcare and nursing homes are two areas for which there are continuing demand.

- ◆ 34.3 million (12%) of the US Population were born in a foreign country.
- ◆ The factors that will greatly affect the US's labor market over the coming years are:
 1. Impending baby boomer retirements
 2. Ongoing shifts in the country's demographic composition
 3. Increased payoff on postsecondary education
 4. Technological advances and the loss of low-skill jobs.

Baby Boomers and Retirees

- ◆ There were 76 million "Baby Boomers" born between 1946 and 1964, comprising 28% of the US population. The oldest of this group will be eligible soon for social security.
- ◆ By 2030, all 76 million "Baby Boomers" will be at least 65 and the elderly will grow faster than any other age group.
- ◆ An estimated 10 million American baby boomers will develop Alzheimer's disease in their lifetime, placing enormous strains on the US health-care system and the already overburdened network of caregivers. Currently, 5.2 million Americans suffer from Alzheimer's, including more than 200,000 people under 65. By 2010, projections say there will be 500,000 new cases each year and nearly one million new cases annually by 2050. In 2005, Medicare spent \$91 billion on people with Alzheimer's and other dementias. By 2010, that number is expected to climb to \$160 billion and to \$189 billion annually by 2015. This will burden the long-term care system, which is not covered by most regular health insurances and will have a devastating impact on society.
- ◆ The number of baby boomers who are opting for knee replacement surgery earlier in life is growing at an exponential rate. A few years ago, 300,000 surgeries were done each year; today, that number has risen to a staggering 500,000. Ten years from now, experts estimate there could be as many as 3.2 million annually. The demand for new knees will outpace the availability of surgeons trained to perform the procedure. The reason for the increase can be attributed to baby boomers wanting to maintain an active lifestyle.
- ◆ In the US, 17.9% of adults are now retired, which has increased 6% in the last five years and will continue to climb as boomers exit the workforce. Consumption habits of aging Americans are very different from their predecessors because they are living longer, achieving higher levels of education, are wealthier, and redefining what it means to be retired. 83% of retired adults in the US now own their own home and 30% have cash, stocks and CD's valued at more than \$100,000, the highest figure ever reported.

- ◆ In the US, one Baby Boomer dies every 48.1 seconds. At some point, Baby Boomers will have a large impact on the death care services industry.
- ◆ Baby Boomers enjoy higher median household incomes (\$60,000) than do younger and older adults according to the Census Bureau's 2006 American Community Survey. Boomers are in their peak earning years and more likely to own stocks or bonds and to have retirement accounts. Ironically, boomers are more anxious to cut household spending in the coming year because money is tight.
- ◆ Companies will need to shift their management models to retain their boomer employees, or risk a dangerous loss of institutional knowledge and sudden reduction in their work force. Boomers can use this situation to create the work experience they desire.
- ◆ If Boomers retire early, corporations won't have the power to remain competitive in a global marketplace. The rate of growth in the US workforce will fall drastically over the next 20 years. This change offers a golden opportunity for skilled boomers to reverse age bias and transform the corporate model to suit their needs to continue working for meaning and money.
- ◆ Retirement will mean many things to many people. Many boomers will keep working. A survey by The Associated Press found that most boomers expect to retire at age 63, but 66% of them expect to work for pay after retiring. 43% will do so because they want to stay busy, 27% say they'll keep working to make ends meet, and another 19% will work so that they can afford "extras."
- ◆ Surveys indicate that more than half of all boomers intend to work at least part-time after they leave their core careers due to financial reasons and health care costs. There is an increase in social security benefits if one works until the age of 70. As an incentive to do so, a typical retiree at 62 receives \$8,500 a year. If that same person works until 70, s/he would get \$16,000.

Minority Population

- ◆ One in every three Americans is a person of color. The nation's minority population reached 100.7 million according to the US Census Bureau in May 2007. Hispanics remained the largest minority group with 44.3 million (July 2006) or 14.8% of the total US population. Hispanics are also the fastest-growing minority group, boasting a 3.4% increase between July 2005 and July 2006. Hispanics accounted for almost half of the national population growth between July 2005 and July 2006.

The African American population increased by 1.3%, Asian rose 3.2%, American Indian/Alaska Native rose 1%, and Native Hawaiian/Other Pacific Islander rose 1.7%.

The non-Hispanic, single race White population, which represented 66% of the total population, accounted for 18% of the nation's total population growth.

- ◆ According to the US Census Bureau, demographic shifts in the US are changing the face of the nation.

United States	2003	2010	2050
White (Non-Hispanic)	73%	65%	53%
African-Americans	12%	13%	14%
Hispanic/Latinos	11%	16%	24%
Asian-Americans	5%	7%	11%

- ◆ According to The Condition of Education 2007 (National Center for Educational Statistics), minority students make up 42% of public school enrollments. It was also noted that 20% of school-age children speak a language other than English at home.
- ◆ In the 2003-2004 school year, English Language Learner (ELL) services were provided to 3.8 million students (11% of all students.) The two leading states were California (1.6 million students, 26%) and Texas (0.7 million students, 16%).

State of Maryland

- ◆ Maryland will become the first East Coast “majority-minority” state. By 2025, Maryland will be among eight other states and the District of Columbia in which racial and ethnic minorities will outnumber Whites. According to the US Census Bureau in a 2006 estimate, Maryland is 42% minority (29% Black, 5% Latino, 5% Asian, and 3% Native American and other.) Currently Hawaii, New Mexico, California, Texas, and the District of Columbia are already majority-minority. It is estimated that Arizona, Nevada, Georgia, and Florida will join Maryland by the 2025.
- ◆ The U.S. Census Bureau projects the following Hispanic growth in Maryland:

Hispanic Population Growth 1995 - 2025					
	July 1995	July 2000	July 2005	July 2015	July 2025
Maryland	172,000	214,000	258,000	345,000	438,000
Percent of Growth		24.4%	20.6%	33.7%	27.0%

- ◆ Maryland's population increased by 11% between 1990 and 2000, and by 5.7% between 2000 and 2006, bringing Maryland's total population to approximately 5.6

million. Approximately 35% of the total population increase between 2000 and 2006 in Maryland was directly attributable to immigrants.

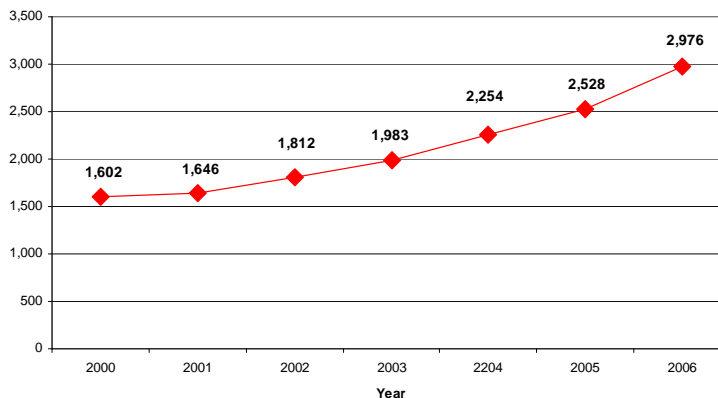
Washington County, MD

- ◆ Washington County’s population is projected to grow to more than 171,400 by year 2020.
- ◆ Washington County is growing more diverse. The US Census Bureau’s 2006 Population Estimates report the following estimates:

Race	2005	2006
White	125,307	126,359
Black	12,594	13,388
Asian	1,721	1,918
Multiracial	1,608	1,735
American Indian	271	283
Native Hawaiian	62	65
Total Population	141,563	143,748

- ◆ The Hispanic population of Washington County grew by 17.7%. (*Note: The US Census Bureau considers Hispanic an ethnicity, not a race.*) The minority population makes up 12% of the total population, but accounted for 46% of the county’s population growth between 2005 and 2006.

Hispanic Population Growth in Washington County



- ◆ The Herald-Mail Newspaper published Washington County Public School’s English Language Learners (ELL) data in the June 28, 2007 edition. The ELL numbers have doubled in five years. At the completion of the 2006-2007 school year, there were 400 ELL students, up from 159 in 2002-2003. These students are fluent in at least 24 languages; 100 claimed Spanish as their native language.

- ◆ In 2006, about 20% of US children 5 – 17 spoke a language other than English at home, and 5% spoke English with difficulty. About 72% of the children spoke Spanish.
- ◆ Below are the historical age ranges of credit students at HCC. The age range “20 and under” has shown the most significant increase in headcount due to the ESSENCE program.

AGE	FALL SEMESTERS						5-Year Percent Change
	2002	2003	2004	2005	2006	2007	
20 and under	1,289	1,448	1,609	1,737	1,801	1,885	46.2%
21-25	565	660	719	646	666	711	25.8%
26-30	307	343	344	316	339	372	21.2%
31-35	276	257	363	269	248	221	-19.9%
36-45	352	402	414	419	423	398	13.1%
46 and older	235	261	303	283	274	284	20.9%
Unknown	5	6	2	1	2	2	

Source: HCC's Official Enrollment Reports Prepared by Linda Vrboncic

- ◆ With affordable housing and a high quality of life, the metropolitan and suburban areas are expanding into the western counties in Maryland, creating significant “in-migration” to Washington County.

DEMOGRAPHICS: IMPLICATIONS FOR HCC

- ◆ The U.S. population is aging rapidly as members of the 76 million baby boomers, age 36 to 54, are returning to college for additional job training, new careers or personal growth. This “Baby Boom” generation will have a significant impact as start to retire, or redefine the term “retirement.”
- ◆ As the population ages, a large number of persons will demand continuing education and personal development opportunities. Many in this demographic will choose to continue to work after retirement and will want to continue to develop their work skills while others will seek opportunities to pursue personal educational interests. Based upon this, HCC will experience growth in continuing education, generally, along with increased demands for contract training as economic development remains a high priority in Washington County.
- ◆ Mirroring a national trend, the College’s service area population is aging population, which provides challenges and opportunities for HCC. The College needs to examine which offerings are most needed for a slightly older population, as well as explore strategies for life-long learning.
- ◆ As the life span of Americans continues to increase, the trend of living longer demands related products and services, such as home healthcare, retirement communities, and nursing homes.
- ◆ One of the national trends over the last decade that is expected to continue into the next is the shrinking middle class and the widening gap between those at the bottom of socio-economic ladder and those at the top. The commitment to diversity in higher education could also be negatively impacted by insufficient resources when those at the bottom are ready to take advantage of postsecondary opportunities in Maryland.
- ◆ There will be a greater need for recruitment, orientation, development, and retention of diverse students and employees.
- ◆ Multi-cultural diversity in our community and on our campus will continue to increase. . The strengthening of this critical part of the College mission is essential for those high school graduates and adults who are limited in basic skills and need support for continuing their education and training, as well as for success in the workplace. Hispanic populations especially grew at a faster rate than the white population. As minorities increase, particularly the Hispanic population, it is anticipated that HCC enrollments will increase, particularly as the College attracts non-native speakers of English in its adult basic education programs. Curriculum and course content that imbeds multiculturalism sensitivity and training will be the norm.

- ◆ Changes in the ethnic composition of the population, particularly growth of groups that have traditionally been under-represented in higher education, will have great impact on the College's programs and services. Support services that are needed may be different for student groups that have traditionally been under-represented, as their numbers begin to increase. These changes will have important planning implications for the College and will impact the College's ESL program, as well as the need for support services. Additionally, the major shift in student population requires the College to refine its marketing and recruitment strategies.

- ◆ Much of Washington County's growth will continue to be the result of migration from eastern and southeastern suburbs of metropolitan areas. These 'immigrants' have high educational, cultural and social expectations.

ECONOMY

HCC's Economic Impact in the Community

Hagerstown Community College participated in an economic impact study through CCBenefits, Inc., a leading provider of socioeconomic impact and strategic planning tools to community and technical colleges. Specific FY 06 enrollment, financial, and demographic data was provided in August 2007. Below are highlights from the final impact report:

Education Will Pay for a Lifetime

- ◆ Students enjoy an attractive 17% rate of return on their HCC educational investment, and recover all costs (including wages given up while attending classes) in only 8 years.
- ◆ The average HCC student's lifetime earnings will increase \$5.60 for every dollar invested in their HCC education.
- ◆ Students see their annual income increase, on average, by \$136 per year for every credit completed at HCC.
- ◆ The typical Associate Degree graduate from HCC earns \$39,500 per year, 39% more than someone with a high school diploma or GED.
- ◆ Over the course of a working lifetime, Associate Degree graduates from HCC earn \$432,900 more than someone with a high school diploma.
- ◆ By 2017 it is anticipated that there will be about 34,800 new and replacement jobs available in the Washington County economy. About 24% of these jobs will require an education level equal to associate's degree or greater.

HCC Leverages Taxpayer Dollars

- ◆ State and local taxpayers earn 7.6% rate of return on their investment in Hagerstown Community College. HCC adds more money to the State Treasury than it takes out.
- ◆ As many as 79% of HCC students remain in the State and contribute to economic growth.
- ◆ Students enjoy higher earnings after receiving education from HCC, thereby expanding the tax base and reducing the tax burden on state and local taxpayers.
- ◆ HCC yields a return on government investment. State and local government allocated around \$13.1 million in support of HCC in FY 2006. For every \$1.00 of this support, taxpayers see a cumulative return of \$1.80 over the course of students' working careers (in the form of higher tax receipts and avoided social costs.)

HCC Stimulates Economic Growth

- ◆ HCC's past and present activities in the workforce account for \$114 million in earnings and \$47.3 million in property income of the region's current economy.

- ◆ Washington County's economy owes roughly \$161.4 million of its current income to the annual operations of HCC and the cumulative effects of its past students.

HCC Raises Consumer Spending

- ◆ HCC had a total operating budget of \$27.3 million, of which \$21.3 million (or 78%) was spent in the local region.
- ◆ Approximately 25% of HCC's student body came from outside the region. These students spent an estimated \$203,900 in the region while attending HCC.

HCC Reduces Social Costs

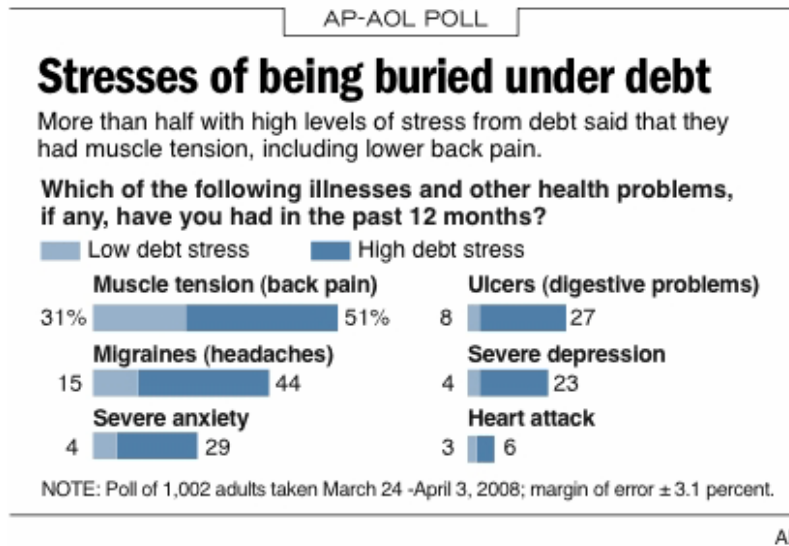
- ◆ Education is statistically correlated with improved lifestyle behaviors, including reduced incidences of absenteeism, alcohol abuse, and smoking, lower probability of committing crime, and fewer welfare and unemployment claims.
- ◆ It is estimated that HCC's student body generates social savings equal to \$830,000 a year, with \$235,000 in crime savings, and \$91,000 in welfare and unemployment savings.

Contact the Planning and Institutional Effectiveness Office to view the full report.

United States – National

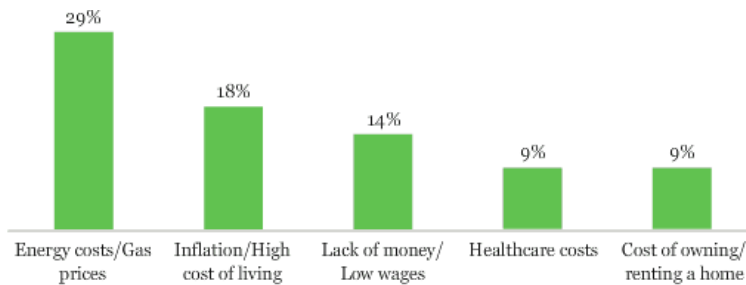
- ◆ The number of US homes heading toward foreclosure more than doubled in the first quarter of 2008 compared to the first quarter of 2007, as the weakening property values and tighter lending left many homeowners powerless. One in every 194 households received a foreclosure filing during the quarter. Foreclosure filings increased in all but four states.
- ◆ Home foreclosures and late payments set records and are expected to keep rising, stark signs of the housing crisis' mounting impact to homeowners and the economy. Both the rate of new foreclosures and late payments were the highest on record going back to 1979. The latest snapshot of the mortgage market showed the proportion of mortgages that fell into foreclosure soared to 0.99% (first quarter of 2008), surpassing 0.83% (last quarter of 2007). The delinquency rate jumped to 6.35% (first quarter of 2008), compared to 5.82% (last quarter of 2007).
- ◆ The drop in home prices is the primary problem. Declining prices are hurting people's ability to recover when they run into difficulties such as a divorce or loss of job. After a five-year boom, the housing market fell into a deep slump, which dragged down sales and prices with it. As the value of home plummeted, many newer homeowners found themselves owing more on their mortgages than their homes were worth.

- ◆ The stress from deepening debt is causing health and social problems – “Debt Stress.” The Associated Press – AOL poll conducted in March/April 2008, which revealed the following.



Upwardly mobile, middle-class families were among those who had the most debt stress. Those people who reported high levels of debt stress suffered from at least three stress-related illnesses.

- ◆ The US has the largest gross domestic product (\$13.3 trillion) and the largest gold reserves (nearly \$158 billion). However, the US has the largest national debt (\$8.6 trillion), the largest trade deficit and the largest federal foreign debt (\$2.1 trillion).
- ◆ According to the July 2008 Gallup Poll survey when asked “What is the most important financial problem facing their families today,” energy costs/gas prices topped the responses, followed by inflation/high cost of living, and lack of money/low wages.



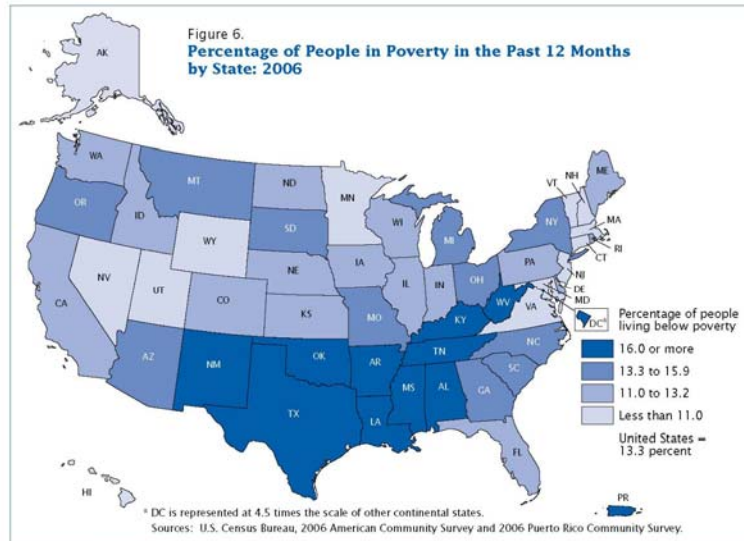
As disposable income shrinks, an overwhelming 81% of respondents reported that they have made an effort to find the cheapest prices for the products they buy. Three in four (73%) say they have cut back on spending on entertainment, recreation, and eating out. 65% have made a greater effort to keep track of their

family spending, while 49% have bought cheaper, lower-quality goods or have shopped more often at discount stores (46%).

- ◆ Gallup Poll administered a survey in May 2008 asking, “In your view, what one or two issues should be the top priorities for the President and Congress to deal with at this time?” Respondents’ top priorities were: the economy, the war in Iraq, and gas prices.
- ◆ According to the US Census Bureau’s 2006 American Community Survey released August 2007, a chart indicating the% of people living below poverty level within the tri-states follows:

Percent of People Below Poverty Level in 2006		
Rank of US States	State	Percent
5	West Virginia	17.3%
	United States	13.3%
30	Pennsylvania	12.1%
51	Maryland	7.8%

Maryland had the lowest poverty rate followed by New Hampshire at 8.0%. Mississippi had the highest with 21.1%. The 2006 US Poverty map follows.



- ◆ According to the US Census Bureau's 2006 American Community Survey, Maryland ranked number 1 for Median Household Income.

Median Household Income for 2006		
Rank of US States	State	Percent
1	Maryland	\$65,144
	United States	\$47,665
26	Pennsylvania	\$46,259
50	West Virginia	\$35,059

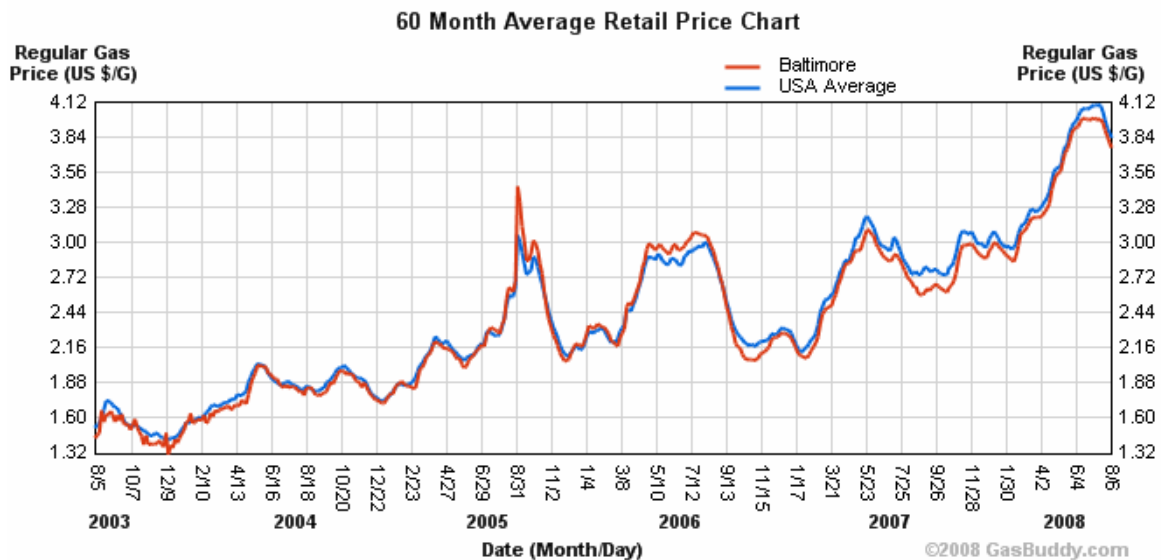
- ◆ Maryland ranked third for Median Family Income behind Connecticut and New Jersey.

Median Family Income for 2006		
Rank of US States	State	Percent
3	Maryland	\$77,839
	United States	\$58,526
21	Pennsylvania	\$58,148
50	West Virginia	\$44,012

- ◆ According to many financial experts, the economy appears to be headed toward a recession. The following table shows inflation over the past decade. The Inflation rate is calculated from the Consumer Price Index (CPI-U) which is compiled by the Bureau of Labor Statistics and is based upon a 1982 Base of 100. The commonly quoted inflation rate of 3% is actually the change in the Consumer Price Index from a year earlier. The "Ave" on this table is the Average of the individual Inflation rates for that year. It is important to note that the rate of inflation during the first six months of 2008 exceeds the average annual inflation rates of the decade.

Historical Inflation													
Compiled by the Bureau of Labor Statistics													
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVE
2008	4.28%	4.03%	3.98%	3.94%	4.18%	5.02%							
2007	2.08%	2.42%	2.78%	2.57%	2.69%	2.69%	2.36%	1.97%	2.76%	3.54%	4.31%	4.08%	2.85%
2006	3.99%	3.60%	3.36%	3.55%	4.17%	4.32%	4.15%	3.82%	2.06%	1.31%	1.97%	2.54%	3.24%
2005	2.97%	3.01%	3.15%	3.51%	2.80%	2.53%	3.17%	3.64%	4.69%	4.35%	3.46%	3.42%	3.39%
2004	1.93%	1.69%	1.74%	2.29%	3.05%	3.27%	2.99%	2.65%	2.54%	3.19%	3.52%	3.26%	2.68%
2003	2.60%	2.98%	3.02%	2.22%	2.06%	2.11%	2.11%	2.16%	2.32%	2.04%	1.77%	1.88%	2.27%
2002	1.14%	1.14%	1.48%	1.64%	1.18%	1.07%	1.46%	1.80%	1.51%	2.03%	2.20%	2.38%	1.59%
2001	3.73%	3.53%	2.92%	3.27%	3.62%	3.25%	2.72%	2.72%	2.65%	2.13%	1.90%	1.55%	2.83%
2000	2.74%	3.22%	3.76%	3.07%	3.19%	3.73%	3.66%	3.41%	3.45%	3.45%	3.45%	3.39%	3.38%
1999	1.67%	1.61%	1.73%	2.28%	2.09%	1.96%	2.14%	2.26%	2.63%	2.56%	2.62%	2.68%	2.19%
1998	1.57%	1.44%	1.37%	1.44%	1.69%	1.68%	1.68%	1.62%	1.49%	1.49%	1.55%	1.61%	1.55%
1997	3.04%	3.03%	2.76%	2.50%	2.23%	2.30%	2.23%	2.23%	2.15%	2.08%	1.83%	1.70%	2.34%

- ◆ After nearly two decades of low food inflation, prices for staples such as bread, milk, eggs, and flour are rising sharply. Several factors contribute to higher food prices, but none more than record prices of oil. Oil is not only driving up production and transportation costs, but also adding to demand for corn and soybeans, used to make alternative fuels such as ethanol and biodiesel. The price of wheat has more than tripled during the past 10 months, which impacts every section of the grocery store. Over the past year, overall food prices rose nearly 5%, more than double the average of the previous ten years (2.5%). Experts forecast prices will rise even faster the next five years at an annual rate of 7.5%. American households spend less than 6% of their income on food, which is actually less than any other country.
- ◆ After months of climbing gas prices, Americans are getting a little relief at the pumps this summer.



- ◆ Across the US, the number of businesses, government agencies, colleges, and schools moving to a four-day work week to help save money and cut back on expenses is increasing. Not only is it good for morale but also the “bottom line” for both employees and the companies. The employee saves approximately 20% on gas, child care expense and other costs, while the change also saves the employers electricity and utility expenses.

Flex scheduling and telecommuting allow employees to still work a full-work week through various options. Based on a 40-hour week, many choose four – ten hours days. Some employees are “working from home” a portion of the week. Benefits of telecommuting include: improved health and improved productivity while increasing energy conservation, preserving the environment, promoting safety, allowing employees more family and less commuting time, and reducing job changes that require training time on the part of the employer.

Many businesses have made the decision to be open only four days a week while others are alternating work schedules to remain open their regular operating hours.

- ◆ The U.S. Energy Information Administration predicts the average American household will spend about \$3,400 in 2008 to fuel its vehicles. Students are being forced to make tough decisions about what they can afford. Some are dropping out of school; others are turning to online offerings to save transportation costs. Administrators at rural community colleges (where price of fuel has always been a factor) are seeking ways to help students remain on track with their studies. Common tactics include increasing online course offerings, offering block scheduling, four-day teaching schedules, car pooling, and increasing the number of courses taken on any given day.
- ◆ During economic downturns, it is predicted that postsecondary institutions will experience increased enrollments and decreased funding from Federal, State and local sources. In the past, many colleges have helped overcome financial shortfalls by raising tuition.
- ◆ The public's increasing frustration over rising tuition and families' inability to pay more during economic downturns in the housing and stock markets will make it increasingly difficult for community colleges to balance student access, affordable tuition, and operational costs.
- ◆ The "Graying and Affluent" (individuals over age 50 with incomes of \$50,000 or more) Market is Booming and warming to internet shopping. A survey conducted by The Media Audit reported 65.6% have made at least one purchase on the internet during the previous 12 months, compared to 50.2% in 2004.

State of Maryland

- ◆ Maryland ranked third according to The 2007 State New Economy Index, behind Massachusetts and New Jersey. The index is a state-by-state analysis of how state economies are transforming from an industrial economic model based on “smokestack chasing.” In this model, economic development success is measured by the number of large company relocations rather than the creation and retention of high-value added, high-wage jobs. The index uses 26 indicators, divided into 5 categories, to rank each state: knowledge jobs, globalization, economic dynamism, transformation to a digital economy, and technological innovation capacity. The ranking of Maryland and its neighbors is below.

The 2007 State New Economy Index Overall Rank		
Rank of US States	State	Score
3	Maryland	85.0%
7	Delaware	79.6%
8	Virginia	79.5%
21	Pennsylvania	63.6%
	United States	62.1%
50	West Virginia	35.6%

- ◆ As of June 2008, 4,445 Marylanders filed for bankruptcy this year (as of June 13, 2008), a 50% increase over the same period in 2007, a 148% increase over the same period in 2006. Nationally, total bankruptcy filings have seen close to 30% increase since 2007, rising to 901,927 this year.

- ◆ The residential real estate market in the tri-state area continues to decline. The average number of days on the market more than tripled for Washington County and doubled for Franklin County, PA and Berkley County, WV. The number of pending sales of homes continues to drop at the end of second quarter, historically when real estate sales hit their seasonal high.

RESIDENTIAL HOME SALES				
	Second Quarter			
	2005	2006	2007	2008
Washington County, MD				
Number of Sales	673	425	319	293
Median Sale Price	\$224,450	\$238,650	\$234,300	\$207,520
Average Sale Price	\$249,355	\$263,301	\$258,925	\$232,085
Inventory for Sale (6/30/08)	534	1,246	1,557	1,432
Number Days on Market	56	88	154	180
Pending Sales of Homes	230	166	110	100
Franklin County, PA				
Number of Sales	568	468	433	361
Median Sale Price	\$155,500	\$178,300	\$187,700	\$177,800
Average Sale Price	\$180,183	\$206,944	\$202,335	\$198,986
Inventory for Sale (6/30/08)	467	926	1,350	1,278
Number Days on Market	60	59	105	121
Pending Sales of Homes	217	162	147	118
Berkeley County, WV				
Number of Sales	576	387	350	310
Median Sale Price	\$199,700	\$221,900	\$205,800	\$185,540
Average Sale Price	\$226,653	\$232,519	\$215,754	\$194,561
Inventory for Sale (6/30/08)	558	1,508	1,623	1,514
Number Days on Market	48	71	102	134
Pending Sales of Homes	203	140	118	97
<i>Source: MRIS, Rockville, MD</i>				

While the number of foreclosures in the region may be leveling, they continue at a much higher level than in 2005. A raft of foreclosures has offset a much lower number of new homes coming on the market. Foreclosure sales at depressed prices adversely affect the market in other ways. Unkempt properties lower values of neighboring houses and drive down appraisals of comparable properties that may be in better shape.

Washington County, MD

- ◆ The home construction industry in Washington County has “fallen through the floor over the past two years” according to a December 2007 article in The Herald Mail newspaper. The number of building permits issued for Hagerstown and Washington County fell 70% from 2005 to 2007.
- ◆ An increase in home foreclosures for the HCC service areas may have profound impacts on enrollment and property tax revenue changes, thereby negatively impacting local funding as revenues decline and tuition will have to make up the loss.
- ◆ A more recent trend impacting housing prices is the escalating price of gas. In the past, as part of the western migration, the region’s housing market boomed as people relocated from more expensive areas in the metropolitan Washington, DC area and commuted to their jobs. At that time, they could purchase more home for the money because the cost of gas made the commute worth it. However, the price of gas has changed the economics of the equation.
- ◆ Increased State and local funding is imperative if community colleges are to fulfill their missions as open door institutions of higher learning. The State and County contributions to the College’s operating budget are in jeopardy as the economy weakens and tax revenues drop. To make up for any cuts in funding, the College will be forced to place the burden on students, who already bear approximately 45% of tuition costs.

ECONOMY: IMPLICATIONS FOR HCC

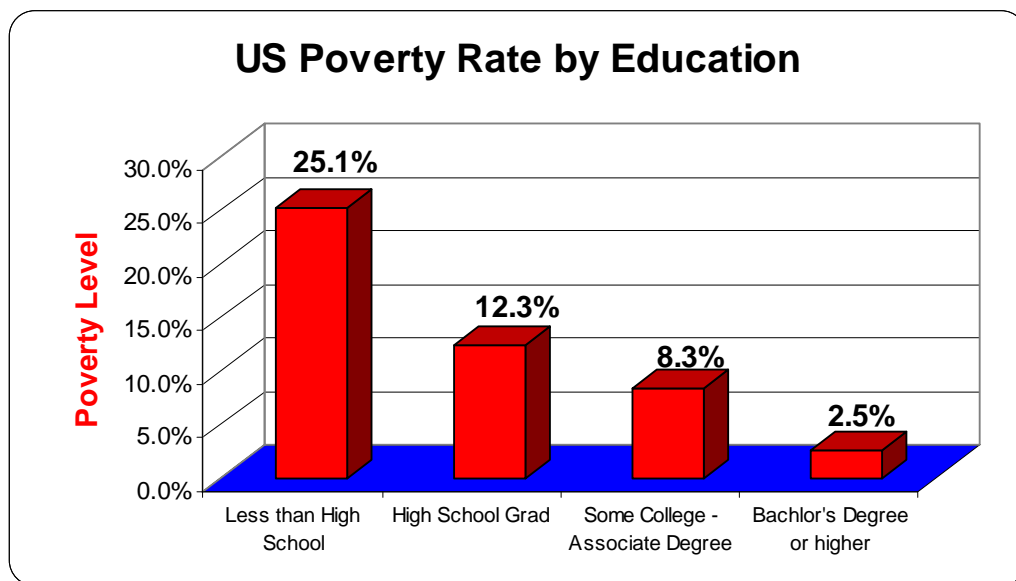
- ◆ The rising cost of fuel is impacting students and colleges alike. HCC must consider the rising student interest in online programs, which may lead it to expand such offerings, or experiment with “blended” or “hybrid” courses that mix in-person and online meetings. However, online education may not always be a viable solution to all transportation issues. For example, specific programs such as allied health fields may limit location and delivery options.
- ◆ The College may consider remote access models and flexible scheduling to better meet employee needs.
- ◆ Declining tax revenues at the State and local levels may impact the College’s capital improvement projects, which are of vital importance to its future success. Most students still receive instruction in outdated facilities that are 40 years old. As enrollments grow, this situation will only worsen.
- ◆ Declining State and local revenues are impacting college budgets and that trend is expected to continue for a few years. HCC, along with other Maryland community colleges are working with one another and the State to expand and stabilize operational funding, as opposed to giving significant increases followed by considerable cuts.
- ◆ Families who have moved from the metropolitan areas have expectations of educational, cultural and social activities provided by the community college.
- ◆ Students and their families are being forced to make difficult choices about what they can afford. Disposable income is shrinking and may force students or potential students to delay college attendance or to “stop out or drop out.” The College must ensure that its financial assistance programs and support services, are funded to the extent possible.
- ◆ During this economic downswing, it is predicted that HCC’s enrollment will increase as individuals turn to educational institutions for support and re-training.
- ◆ To better accommodate students in difficult economic times, the College must seek ways to help students meet their educational goals. Expanded online offerings and block scheduling should be considered.
- ◆ The public’s increasing frustration over rising tuition and families’ inability to pay more during economic downturns in the housing and stock markets will make it increasingly difficult for the community college to balance student access, affordable tuition, and operational costs. Solid operational and strategic planning is critical to move toward a preferred future without sacrificing quality.

EDUCATION

United States – National

- ◆ The age distribution of students provides a challenge to community colleges. Many people do not begin college until later in life. Even those who earn degrees in their twenties, return to college for further education or “booster shots” at different times in their lives. The older the students, the more diverse their experiences will have been, and the more complex the task of responding to their needs.
- ◆ A greater number of people change careers throughout their life, often as a result of layoffs, a desire for more money, or a change in interests. Many of these people are returning to school for new or better education and training.
- ◆ Education is a critical requirement for 21st century jobs and must incorporate strong science and mathematics instruction at all levels. Both individual and national competitiveness and prosperity will depend more than ever on the strength of the entire educational continuum.
- ◆ Business and political leaders expect higher education to provide the training and retraining of the workforce in order to be able to compete in a global economy and maintain the standard of living. However, one of the largest barriers to local and statewide economic development is the area of basic skills education. A large number of adults remains functionally illiterate.
- ◆ High school students’ lack of preparedness has serious implications for our economy and prosperity. According to the 2005 National Education Summit on High Schools, deficits in basic skills cost businesses, colleges and under-prepared high school graduates as much as \$16 billion annually in lost productivity and remedial costs.
- ◆ A task for middle and high schools will be to continue to encourage further study in math, science, and technology. Schools can begin to provide opportunities for career exploration that engage students, and that reinforce the importance to their futures of a rigorous course of study to prepare them for postsecondary education.
- ◆ According to American Association of Community Colleges (AACC), 46% of all US undergraduate students are enrolled in community colleges.
- ◆ The minimum level of education has grown, with the growth industries requiring certificates and degrees more than high school diplomas.

- ◆ The National Center for Education Statistics reports workers in 2006 with bachelor's degrees earned 28% more than those with associate's degrees, 50% more than those with high school diplomas, and 98% more than those who did not earn a high school diploma. The American Association of Community Colleges reports that the average expected lifetime earnings for a graduate with an associate degree are \$1.6 million, about \$0.4 million more than a high school graduate earns.
- ◆ The Lumina Foundation for Education reports that nationally, about 54 million people in the labor force have no college degree, and of those, 34 million have no college experience at all. Governors and state policy makers recognize that higher education attainment influences the country's economic future. Current state and institutional strategies include targeting adult students for certain high-demand industries, such as nursing or teaching, promoting part-time course offerings, and providing incentives for job-skills training to encourage enrollment at post-secondary institutions.
- ◆ Educational achievement plays a significant role in the US Poverty rate (Source US Census Bureau, 2005).



- ◆ Increased emphasis on college and university accountability is requiring more outcomes assessment, benchmarking, and institutional research.
- ◆ The National Center for Education Statistics reports an increase in home schooled students. In 2003 (*the most recent report*), the number of homeschooled students was 1.1 million, an increase from 850,000 in 1999. 77% of these students were white and 81% were from two-parent households. Parents' top three reasons for home schooling their children were: 1) concerns about the school environment (safety, drugs, or negative peer pressure), 2)

desire to provide religious or moral instruction, and 3) dissatisfaction with academic instruction.

- ◆ In February 2008, a California state appeals court ruled that unless parents have recognized teaching credentials, they must send their children to school. If upheld, the court decision could influence laws across the country. Currently, only six states have strict regulations for home-schooling (including curriculum approval, show test scores, and home visits.) Nationwide, approximately up to 2 million children are taught at home and the number is increasing 7% to 12% a year.
- ◆ For-profit educational institutions continue to increase in size and number competing with established public community colleges. Colleges like Phoenix University offer flexibility for the working student. For-profit technical schools like ITT, guarantee job placement. Community colleges must quickly distinguish themselves so that their offerings or mode of delivery are unique in the marketplace. The community college as a low cost option for higher education does not have the same attraction for students that it did even five years ago.
- ◆ A higher percentage of students representing traditionally underserved populations are choosing to attend college. Unfortunately, increased college participation does not always result in increased degree completion.
- ◆ Community colleges, in particular, will assume an even more significant role in developmental education and workforce training because they are best positioned and qualified to do so.
- ◆ Although the United States has one of the highest college enrollment rates in the world, the nation's college completion rate is average to below-average among developed countries.
- ◆ The U.S. university dropout rate, 34%, is among the highest in the industrialized world. The U.S. university dropout rate, 34%, is among the highest in the industrialized world.
- ◆ 95% of businesses and organizations that employ community college graduates recommend community college workforce education and training programs.
- ◆ Community colleges make significant contributions to public safety and homeland security by training more than 80% of the nation's credentialed firefighters (86%), law enforcement officers (86%), and emergency medical technicians (84%).
- ◆ Almost half of the students attending community college receive some form of financial aid to help finance their studies. As the economy continues to sag, the open door policy that is part of the community college mandate will be threatened.

- ◆ Postsecondary noncredit education has become increasingly common in recent years, and at many community colleges, noncredit education enrolls more students than credit programs. Much of the growth has occurred in courses connected with workforce instruction and contract training. These programs are noted for their important role in responding to shifting workforce demands and providing skills in a way that is flexible and responsive to employer needs.
- ◆ Senior adults are attending college courses in droves – no grades, no papers, no fees! An increasing number of retirees are returning to college, some moving to a growing number of residential developments built for older people situated on or near campuses. There are more than 60 “college-linked retirement communities” nationwide. As the “Baby Boomers” reach retirement age, it is anticipated that similar communities will only increase. Baby Boomers, who will live another 20+ years after retirement, are demanding a full and rewarding “second life.”
- ◆ More high schools students nationally and locally are studying under the demanding International Baccalaureate (IB) program. Community colleges may need to partner with 4-year colleges in a 2+2 type arrangement to capture this potential student population.
- ◆ Expanded partnering between educational institutions through distance learning is expected to continue and encompasses K-12 systems, employers and other community colleges. Through those partnerships, community colleges have started enrolling high-school students looking for early college credit and experience, students at other community colleges that do not offer a given specialized program, and workers seeking further training. The collaborations have helped fuel the continuing growth of online postsecondary education.
- ◆ Distance education is continuing to grow dramatically, according to a 2005 report by Eduventures Inc., which indicated that almost 10% of students enrolled at degree granting institutions took courses that took place completely online -- up from half that only two years earlier.
- ◆ Community colleges must continue to provide seamless transitions from high schools as students are provided opportunities to take college-level classes and earn college credit while in high school.
- ◆ As states raise standards for students, teachers are being required to upgrade their skills and knowledge of the subjects they teach.
- ◆ Innovation is the buzzword of the decade and will be a must if community colleges are to be effective in the future. Learning and understanding do not necessarily occur because one is taught. The paradigm shift from teaching to a learning focus provides a different focus that impacts the way we view our policies, practices and our organizational architecture. Alternate forms of

educational delivery, tailoring subjects to individual learners according to their learning styles, or creating programs and learning experiences more quickly to meet community needs are some examples. Since other community colleges offer much of the same content, innovation may be the only thing that sets a college apart from its competitors.

- ◆ There is a growing emphasis on practical application, cooperative education, internships and getting students into the field.
- ◆ Student expectations are changing as many seek flexible schedules, delivery options, and full service online support. In addition, the demand for technically driven, alternative education options, (i.e., online, hybrid formats, virtual support services) is expected to grow. In response to this growth, college' infrastructure and processes will be impacted, and organizational cultural shifts will be required to accommodate this change.
- ◆ The need for community colleges to respond quickly to changing student needs will continue as an increasing number of first generation students, and returning adult service men and women choose higher education institutions based on cost, convenience, and accommodations.
- ◆ Recent studies including NCES data indicate that students have “swirling enrollment patterns,” meaning that they are attending multiple postsecondary institutions. One report profiles students who co-enrolled (attended more than one institution simultaneously) or transferred are taking average times to completion. Most accountability models do not take this phenomenon into consideration.

Nursing and Health Care

- ◆ Community colleges educate the majority of other health-care workers. AACC statistics show 50% of nurses in the US are educated at community colleges and 65% of new healthcare workers get their training there.
- ◆ Shortages in allied health fields exist across the board and are growing more acute. Community Colleges are turning away qualified students due to lack of faculty, clinical sites and preceptors, and classroom and lab space. By 2020, the US Department of Labor predicts a national shortage of 800,000 registered nurses (RNs).
- ◆ Associate Degree Registered Nurses (AD RN) are the largest component of the pipeline of RN professionals in the US. They account for 60% of all new RNs.
- ◆ Nationally, the pass rates for the RN licensure exam (NCLEX) are comparable among candidates: Bachelor Degree 83.9%, Associate Degree 83.8%, and

Diploma 83.4%. HCC's NCLEX pass rate was 88%, 5% above the national average.

- ◆ An AD RN program is delivered more quickly and cost-efficiently at a community college at an annual average cost of \$1,379 versus \$3,746 for a four-year program at public colleges.
- ◆ Nearly 70% of LPN certificates are awarded by public community colleges.
- ◆ AACC statistics show more than 60% of all registered nurses staffing the nation's hospitals and care centers are educated through associate degree programs.
- ◆ An average of 98% of associate degree RNs are hired within six months of graduation.
- ◆ Associate degree nursing programs educate more minority students than four-year programs.

State of Maryland and Washington County

- ◆ Every other year, the National Center for Public Policy and Higher Education evaluates states on their performance in higher education. The purpose is to provide the general public and policymakers with information they can use to assess and improve postsecondary education in each state. The report, "Measuring Up," grades states in six overall performance categories.

To the right is Maryland's 2006 report card.

It should be noted that the highest grade earned in "Affordability" was a C- by only two states.

2006 REPORT CARD	
Preparation	A-
Participation	A
Affordability	F
Completion	B
Benefits	A
Learning	+

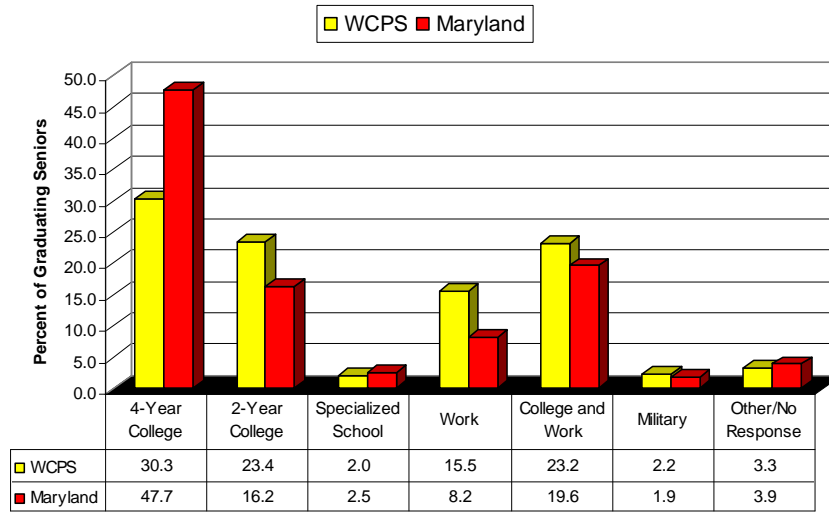
Since 1992, Maryland improved or was stable in all categories.



- ◆ 77.8% of the Washington County population over 25 is a high school graduate or higher; 14.6% have a bachelor's degree or higher; and 5.6% have an associate's degree. 22.2% did not graduate from high school.

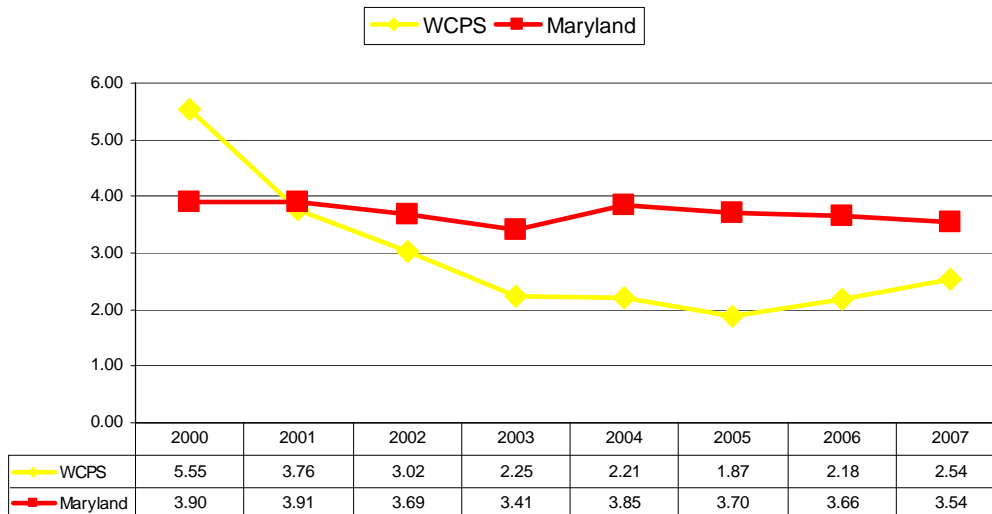
- ◆ The Class of 2007 Post High School Graduation Intent results were released from The Maryland State Department of Education. Washington County graduating seniors are less likely to attend college than Maryland students as a whole.

Post High School Graduation Intent Class of 2007



- ◆ Washington County's High School Drop-Out Rate has greatly improved since 2000 while Maryland's rate has remained stable.

2007 High School Drop-Out Rate



- ◆ Of the 2006 college-bound Washington County Public School graduates, 49% attended undergraduate higher education in the State of Maryland. HCC's market share of the 2006 college-bound high school graduates is 75% (451 of 602 students).
- ◆ Of all the 2007 Washington County public high school diploma graduates, 39% attended Hagerstown Community College in the subsequent fiscal year (FY 08).
- ◆ Washington County Public Schools expects enrollment to increase 6% (22,997) by 2013 based on housing data, the local birth rate, and other criteria. Enrollment in school year 2007 – 2008 was 21,692.
- ◆ Between 2001 and 2008, the number of HCC students majoring in science disciplines has significantly increased by, for example, 42% in Biology and 62% in Chemistry. During the same time period, enrollment in advanced Mathematics (courses above the 101 level) increased by 19%. To put in place a sustainable pipeline to biotechnology careers, however, even more students must be attracted to postsecondary math and science education and training.
- ◆ Maryland Higher Education Commission (MHEC) reported in 2006 that when assessed with the Compass placement exam used by HCC, 54% of incoming freshmen who had not completed the most rigorous high school program needed math remediation, and 53% required English remediation. Moreover, 40% of students who had completed a more rigorous "core" program required remediation.¹⁷ Students who do not test directly into college-level work must first take developmental coursework, and deficiencies in math, for example, can keep them from pursuing the major of their choice.
- ◆ HCC's closest competition, in terms of location, is Kaplan College, which was formerly Hagerstown Business College. As shown on the following page, HCC is a better buy! HCC offers several of the same programs: Medical Assistant, Medical Billing/Coding, Medical Receptionist/Transcriptionist, Medical Secretary/Assistant, Dental Assistant, Phlebotomist, Criminal Justice, Administrative Professional, and Network Systems Technology.
- ◆ The public education system, which includes Washington County Public Schools, Hagerstown Community College, and the University System of Maryland at Hagerstown, are positioned to work in partnership with each other and other community interests to serve bioscience development within the county. Issues for education include: participating in a community education campaign; finding ways to increase the math and science interests and skills of local students; working to provide financial assistance to for higher education; and developing clear pathways among educational levels.

Hagerstown Community College			Kaplan College (Hagerstown Campus)			
Degrees Offered						
Associates and Certificates			Associates and Certificates			
Enrollment						
Total enrollment:		3,719	Total enrollment:		822	
Percent of Enrollment	By gender		by gender			
	Men	39.1%	Men:	20.4%		
	Women	60.9%	Women:	79.6%		
	By race/ethnicity		by race/ethnicity			
	Black non-Hispanic	7.6%	Black non-Hispanic:	13.0%		
	American Indian or Alaskan Native:	0.4%	American Indian or Alaskan Native:	0.2%		
	Asian or Pacific Islander:	1.9%	Asian or Pacific Islander:	0.7%		
	Hispanic:	2.6%	Hispanic:	2.7%		
	White non-Hispanic:	84.7%	White non-Hispanic:	81.8%		
	Race-ethnicity unknown:	2.9%	Race-ethnicity unknown:	1.6%		
(Enrollment data Fall 2007)			(Enrollment data Fall 2007)			
Financial	Academic year prices for full-time, first-time undergraduate students					
		2006-07	2007-08		2006-07	2007-08
	Tuition & fees			Tuition & fees	\$9,017	\$10,732
	In-district	\$2,512	\$2,536			
	In-state	\$3,832	\$3,856			
	Out-of-state	\$4,960	\$4,984			
	Books and supplies	\$1,000	\$1,200	Books and supplies	\$1,500	\$1,336
	Off-campus			Off-campus		
	Room and board	\$6,900	\$7,320	Room and board	\$10,920	\$11,220
	Other expenses	\$1,074	\$1,202	Other expenses	\$6,012	\$6,180
Off-campus with family			Off-campus with family			
Other expenses	\$1,074	\$1,202	Other expenses	\$3,948	\$4,056	

Source: IPEDS College data 2007-2008

EDUCATION: IMPLICATIONS FOR HCC

- ◆ The gap between high and low paying jobs will continue to widen, with education and training as the keys to making increasing potential earnings over a lifetime.
- ◆ There will be increased demand for certification and licensure programs as technology changes, along with higher standards and requirements in business, industry, and other professions.
- ◆ The College must provide programs and services for a student population increasingly composed of those who are under-prepared, underrepresented, and underachieving. Mirroring a national trend, admission and enrollment of unprepared or under-prepared students will increase as HCC fulfills an important aspect of its mission, that of providing remedial education.
- ◆ HCC may consider the benefits of reaching out to former students who have not completed a certificate or degree. Challenges with this recruitment approach include: (1) persuading busy adults to return to college, (2) convincing them of the value and importance of pursuing a degree, and (3) maximizing accommodations to match their lifestyles.
- ◆ The magnitude of increases in ethnic and racial populations will be affected by the ability of the K-12 system to retain and graduate an increasingly diverse student body. HCC must be prepared to recruit and serve individuals from a wide variety of cultural and social backgrounds.
- ◆ Local high schools are the primary enrollment feeder. ESSENCE enrollments are expected to expand. To better prepare students for current and future jobs, a partnership between WCPS and HCC should be forged to identify promising math/science candidates for early college experiences.
- ◆ Due to the expansion and growing numbers of home schooled students, the College can expect admission increases in this population.
- ◆ To maximize accessibility, the College must continue to provide flexible, alternative methods and locations for delivering courses and programs
- ◆ Effective on-line learning will be necessary for teaching, learning and productivity.
- ◆ HCC has experienced growth in noncredit education, which mirrors national trends. The College has positioned itself to accommodate future growth as the renovated Career Programs Building includes conference spaces to house large seminars and events.

- ◆ The College's noncredit division must continue to offer quality programs, as well as to develop new programs/courses to respond quickly to meet local training needs, as well as to provide support to dislocated workers through programs and services.
- ◆ HCC may need to develop a policy related to the acceptance of the International Baccalaureate, a new advanced learning option in Washington County Public Schools.
- ◆ The College will continue to expand ESSENCE offerings within the service area, working collaboratively with public and private schools.
- ◆ Recognizing the value and importance of workplace learning, the College redesigned the former Career Development and Workplace Learning area and positions. In FY 09, there are two Workplace Learning Advisors. One position specializes in externship and clinical placements in health science programs and the other upon internship placements in all College non-health science and non-nursing programs. Additionally, a part-time career development specialist position provides academic advising and career counseling to undecided students.
- ◆ State accountability measures do not recognize a longer completion time by community college students. Therefore, HCC and other Maryland community colleges are not looked upon favorably in terms of educational goal attainment / completion of an AA degree.
- ◆ The increasing number of students with "swirling" enrollment patterns could present challenges to HCC. Building solid articulation agreements among multiple institutions may help smooth transitions for many of these students.
- ◆ To help insure that students can make seamless transitions between educational levels, develop a bioscience educational and career pathway that incorporates secondary, postsecondary, and business/industry components.

WORKFORCE AND ECONOMIC DEVELOPMENT

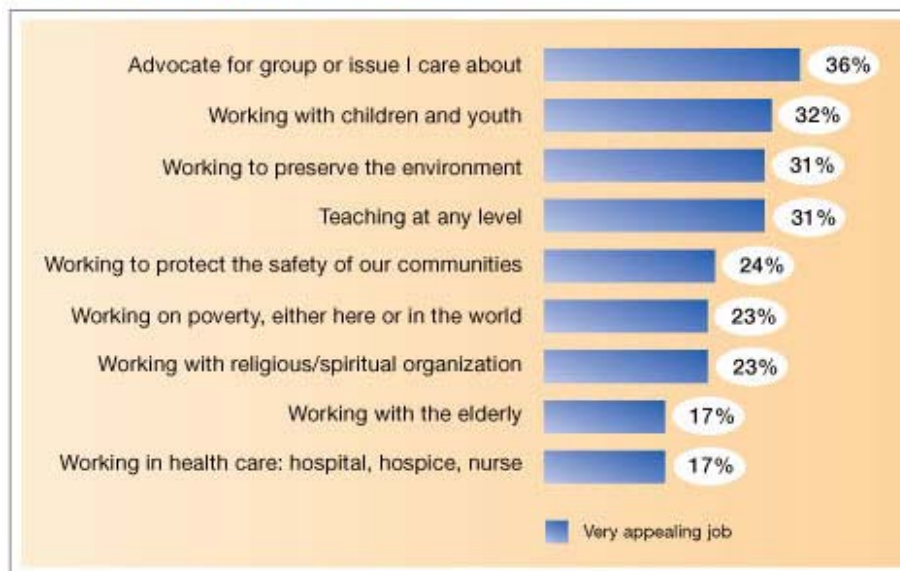
United States – National

- ◆ Colleges should develop closer partnerships with business partners and employers to be more market and workforce driven.
- ◆ Between 1950 and 1997, the proportion of U.S. jobs classified as unskilled decreased from 80% to 15%. As a result of the decrease in unskilled jobs, 70% of all new jobs will require some post secondary education. In addition, by 2028, projections indicate that there will be 19 million more jobs than workers sufficiently prepared to fill them.
- ◆ With the baby boomers beginning to retire, this will create a shortage of workers. To be competitive, the employers must respond. In 2005, 38% of the US workforce maintained flexible schedules. If demand is driving flexible schedules, technology is what enables the transformation. We work in a 24/7 world!
- ◆ The idea of reinventing retirement is not just something that people talk about; it is something they are already doing. “Encore careers” allow older workers who are seeking employment that offers not only income but also personal meaning and social impact. They want to be able to do that work flexibly so that there’s plenty of time for family, travel, and hobbies.
- ◆ The MetLife Foundation and Civic Ventures sponsored The Encore Careers Grant to provide 10 \$25,000 grants to select community and junior colleges throughout the nation to create educational opportunities designed to help the baby boomer population transition into a second “encore career” in sectors like health care, education, and social services, which are facing critical worker shortages. To prevent critical labor shortages and to stay competitive in the global marketplace, programs designed to update, re-skill, and transition boomers into new careers will play a crucial role in keeping the US economy afloat. Virginia Community College System received one of the grants for their 16-week fast-track teacher licensure program.
- ◆ AACC in partnership with The Atlantic Philanthropies recently announced a major grant program, “Plus 50 Initiative,” aimed at helping aging baby boomers stay active and refocus their careers for success in the second half of their life. The three-year program is funded by a \$3.2 million grant and chose ten demonstration colleges.
- ◆ The US economy shed jobs for the seventh consecutive month; while the unemployment rate (5.7%) hit a four-year high according to a government report released August 1, 2008. The Labor Department reported a net loss of 51,000 jobs during the month of July and 463,000 this year. The unemployment rate

tells only part of the problem facing job seekers. It doesn't include those who have become discouraged from looking for work, or those who have accepted part-time jobs when they want and/or need to be working full time. Counting the unemployed and underemployed, the rate rises to 10.3%, the first time that measure has hit double digits since November 2003. Substantial job loss occurred in following areas: construction (22,000); retail (17,000); business and professional services (24,000); commercial banks, Wall Street firms, and real estate (4,000) publishing (3,400), and airlines (900).

The New York Times published this chart in June 2008:

Most appealing jobs among encore careerists



from the MetLife Foundation/Civic Ventures Encore Career Survey, June 2008

- ◆ As millions of boomers are driven by both the desire to remain productive and the need to make ends meet over longer life spans, this is good news for a society facing significant labor shortages in critical areas. Although, there are many obstacles: the cost of additional education and certification in a new field, securing and affording new health insurance, and the trepidation of many employers hiring older Americans. Policymakers must eradicate the barriers and disincentives that penalize individuals for continuing to contribute. This means changes in Social Security, pension rules, and health coverage.
- ◆ Baby boomers express strong interest in second careers in charity, government, education, and institutions that benefit society. Civic Ventures conducted a survey and reports 30% are employed in these areas. 23% are employed in encore careers in health care, 16% in government, and 13% in non-profit.

- ◆ One of the interesting ways that the aging workforce is changing the way we work is by bringing a measure of flexibility to the office. Companies are finding that employees in this age group require different work conditions. They are less interested in working long hours and more interested in part time work. As a result of this trend, “quality of life” has become a key phrase. Telecommuting, job sharing, and part time work, and flex scheduling can be partially attributed to this generation’s influence.
- ◆ Much of the work that people do today is digitized, saved and transmitted around the world for global use. Today, employers have access to a worldwide workforce composed of people who work collaboratively without physically being in the same location. Because of this, American workers at every skill level are in direct competition with workers around the globe.
- ◆ Internet sales have made it possible for consumers to order directly from manufacturers and service providers, thereby negatively impacting traditional sales people and retailers.
- ◆ As online retail sales climb, the demand for package delivery services and commercial vehicle transportation will increase.
- ◆ According to a recent survey by the American Association of Retired Persons (AARP), part-time jobs are the perfect way to stay active in their community while maintaining a comfortable lifestyle. Working part time can provide more vacation time, longer weekends, and a shorter, stress-free work day.
- ◆ Postsecondary non-credit education has become increasingly common in recent years, and at many community colleges, noncredit education enrolls more students than credit programs. Much of the growth has occurred in courses connected with workforce instruction and contract training. These programs are noted for their important role in responding to shifting workforce demands and providing skills in a way that is flexible and responsive to employer needs.
- ◆ Many routine processes/jobs continue to be automated, outsourced or off-shored. The need for re-training and workforce development is growing.
- ◆ Service sector jobs will expand but will require increasing levels of literacy. Research shows that 40% of the adult population lacks the necessary literacy skills required to perform higher level jobs that demand considerable reading and writing. Moreover, 60% of future jobs will demand computer skills that today only 20% of today’s workers possess.
- ◆ The US continues to experience large demographic shifts and a more diversified workforce. With the Baby Boomers continually approaching retirement, and approximately 43% of the population growth within the last 5 years coming from

immigration, the US workforce is experiencing a shift that will have considerable impact on the economy and workforce.

- ◆ Community colleges are the higher education segment providing workforce education that is most directly related to the local area economy. Understanding the changing nature of the area's economy is critical to aligning current academic programs as well as developing new academic programs that meet the needs of local business and industry.
- ◆ The U.S. Office of Technology Assessment defines bioscience as "any modern technology that uses living organisms (or parts of organisms) to produce or modify products, to improve plants or animals, or to develop microorganisms for specific uses." The bioscience field, one of the most rapidly changing areas of science, offers a wide variety of high skill, high wage employment options, including laboratory technicians, research associates, manufacturing and production technicians, as well as senior scientists. Positions can relate to medical and pharmaceutical research, microbiology, forensics, and product development, and are typically better paid than jobs in manufacturing. For example, former textile workers now working as research technicians in North Carolina have increased their earning capacity after community college biotechnology training.
- ◆ In its study, "Technology, Talent and Capital: State Bioscience Initiatives 2008, The Battelle Memorial Institute reports that bioscience employment approached 1.3 million people in 2006, representing at 5.7% increase over five years. The total number of bioscience establishments reached 42,910 in 2006, a 15.7% increase in five years.
- ◆ Because life science is considered to be a regenerative industry, continual training will be needed to ensure that the firm's workforce can quickly adapt to an ever changing environment.
- ◆ US News and World Report its Best Careers 2008 guide, which was released on December 19, 2007 and is on the following page. They dropped 5 of the 25 profiled in the 2007 report and added 11 new ones.

The categories are defined as:

- **Median pay:** These figures are national medians provided by PayScale.com.
- **Job satisfaction:** This letter grade is defined as spending a high percentage of time on activities that many people would consider rewarding or pleasant.
- **Training Difficulty:** This letter grade is defined by the length of training typically required, adjusted by the amount of science and/or math involved.
- **Prestige:** This letter grade is based on an informal survey of college-educated adults.
- **Job market outlook:** This letter grade is based on data from the US Department of Labor and professional organizations, with the career's resistance to being offshored considered.

U.S. NEWS & WORLD REPORT BEST CAREERS for 2008

Career	Median Pay	Job Satisfaction	Training Difficulty	Prestige	Job Market Outlook	Typical Degree Required
Audiologist	\$64,500	A	C	A	B	Aud.D.
Biomedical equipment technician	\$53,300	A	A	B	A	A.S.
Clergy	\$53,700	A	B	A	A	M. Div.
Curriculum/training specialist	\$63,200	A	B	B	A	Bachelor's or master's
Dentist	\$127,000	B	C	A	A	D.D.S.
Editor	\$56,200	A	B	A	B	Bachelor's or master's
Engineer	\$90,900	B	B	A	B+	B.S.
Firefighter	\$55,000	A	A	B	B	Associate or bachelor's
Fundraiser	\$76,200	A	A	A	A	B.A.
Genetic counselor	\$71,100	A	B	B	A	Master's
Ghostwriter	\$61,000	A	A	A	B	None req. B.A. typical
Government manager	\$97,900	B	B	A to C	A	Bachelor's or master's
Hairstylist/cosmetologist	\$33,700	A	A	C	B	None. Short training.
Higher education administrator	\$103,000	A	B/C	A	A	Master's or doctorate
Investment banker	\$258,000	B	B	A	A	Bachelor's or M.B.A.
Landscape architect	\$64,200	A	B	A	A	B. L.A. + 1 yr. practicum
Librarian	\$51,400	A	B	B	B/C	M.L.S.
Locksmith/security system technician	\$44,000	A	A	C	A	None. Short training.
Management consultant	\$138,000	B	B	A	B	Bachelor's or M.B.A.
Mediator	\$66,800	A	A	A	C	None but M.A. or J.D. typical.
Occupational therapist	\$63,900	B	B	B	A	Master's
Optometrist	\$99,700	A	C	A	B	O.D.
Pharmacist	\$99,100	B	C	A/B	A	Pharm. D.
Physician assistant	\$83,800	A	A	B	A	B.S.
Politician/elected official	N/A	A	A	A	B	None req. B.A. or J.D. typical.
Professor	\$85,300	A	D	A	B	Ph.D.
Registered nurse	\$60,400	B	A	B	A	A.S. or B.S.
School psychologist	\$62,600	B	B	A	A	M.A.
Systems analyst	\$91,000	A	B	B	A	B.S.
Urban planner	\$68,800	B	B	A	B	M.A.
Usability/user experience specialist	\$98,800	A	B	B	B	Bachelor's or master's

- ◆ Career Builder released the following “10 Best Jobs Requiring Two-Year Degrees.”

Career	Median Annual Wage	Current Employment	Projected 2016 Employment Increase
Computer Specialist	\$71,510	136,000	15%
Dental Hygienist	\$64,740	167,000	30%
Fashion Designer	62,810	20,000	5%
Registered Nurse	60,010	2.5 million	23%
Environmental Engineering Technician	\$40,560	21,000	25%
Radiologic Technologist and Technician	\$50,260	196,000	15%
Industrial Engineering Technician	\$47,490	75,000	10%
Paralegal and Legal Assistant	\$44,490	238,000	22%
Occupational Therapist Assistant	\$45,050	25,000	25%
Computer Support Specialist	\$42,400	552,000	13%
<i>Salary and Employment Data based on Bureau of Labor Statistics July 1, 2008</i>			

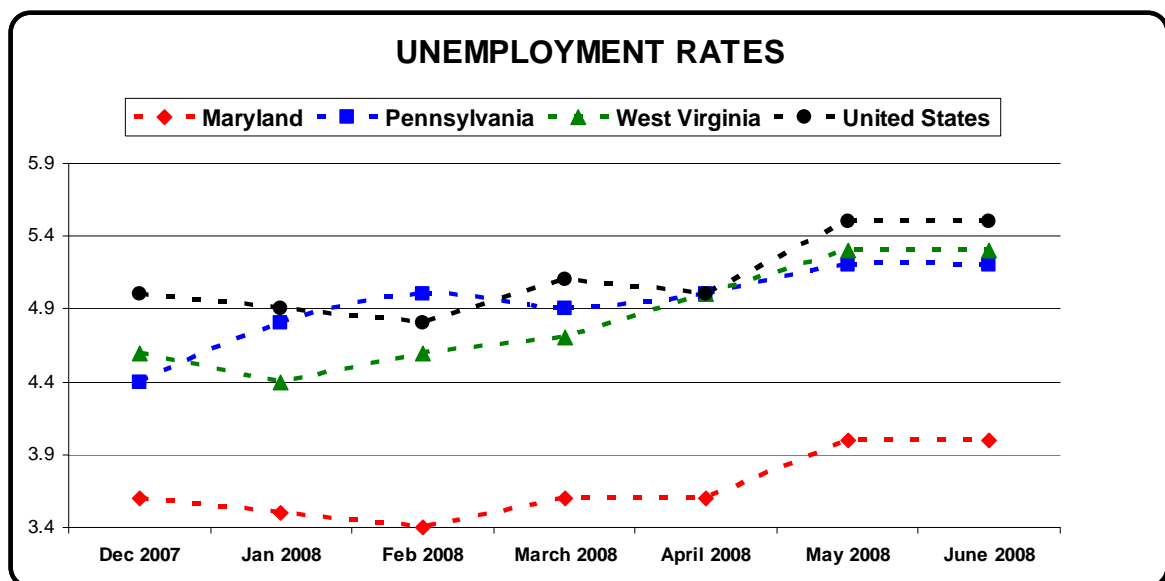
- ◆ CNN.Money released the Top 20 Jobs and included 10-year job growth, with research being conducted by Money Magazine and Salary.com.

CNNMoney.com's Top 20 Jobs - 2007								
<i>Research by Money Magazine and Salary.com</i>								
	Position	Fulfilling and Challenging	Median Pay	Salary Range			10-Year Job Growth	Education Required
1	Product/Brand Manager	B	\$90,100	\$63,000	-	\$108,600	21%	Bachelor's
2	Staff Nurse (RN)	A-	\$59,800	\$49,500	-	\$68,400	29%	AA
3	Property Manager	B+	\$81,400	\$54,300	-	\$114,900	15%	Bachelor's
4	Public Accountant	B	\$50,100	\$38,400	-	\$59,100	22%	Bachelor's
5	Information Technology Generalist	C+	\$47,800	\$35,300	-	\$64,400	31%	Bachelor's
6	Engineer	B	\$53,600	\$42,600	-	\$66,500	15%	Bachelor's
7	Engineer: Environmental, Health, and Safety	B	\$52,400	\$40,100	-	\$59,700	30%	Bachelor's
8	Meeting/Event Planner	B	\$52,600	\$39,300	-	\$74,200	22%	Bachelor's
9	Financial Adviser	A-	\$66,800	\$32,700	-	\$144,200	12%	Bachelor's
10	Investment Specialist	B+	\$72,000	\$44,700	-	\$93,000	26%	Bachelor's
11	Marketing Specialist	A-	\$52,400	\$37,600	-	\$68,400	20%	Bachelor's
12	Massage Therapist	B+	\$44,300	\$27,400	-	\$63,300	24%	Certification
13	Network Administrator	B	\$48,100	\$36,200	-	\$58,900	38%	Bachelor's
14	Paralegal	C+	\$53,700	\$39,200	-	\$64,900	30%	AA
15	Personal Trainer/Fitness Instructor	A-	\$49,400	\$24,400	-	\$81,200	27%	Bachelor's or Certification
16	Pharmaceutical Sales Representative	B	\$93,700	\$54,000	-	\$98,700	14%	AA
17	Real Estate Agent	A-	\$41,300	\$20,400	-	\$109,900	15%	AA or Certification
18	Recruiter	A-	\$60,800	\$43,700	-	\$81,100	30%	Bachelor's
19	Sales Representative	B	\$86,600	\$49,900	-	\$91,200	14%	AA
20	Public/Private School Teacher	A-	\$47,500	\$36,100	-	\$64,100	14%	Bachelor's

State of Maryland

- ◆ As shown in the charts below, Maryland's Unemployment Rate is well below Pennsylvania, West Virginia, and the United States for 2008. Maryland ranked the 13th lowest rate among the US. (Source: US Department of Labor, Bureau of Labor Statistics)

Unemployment Rates							
	Dec 2007	Jan 2008	Feb 2008	March 2008	April 2008	May 2008	June 2008
Maryland	3.6	3.5	3.4	3.6	3.6	4.0	4.0
Pennsylvania	4.4	4.8	5.0	4.9	5.0	5.2	5.2
West Virginia	4.6	4.4	4.6	4.7	5.0	5.3	5.3
United States	5.0	4.9	4.8	5.1	5.0	5.5	5.5



- ◆ Maryland's nonprofit employment grew by 20.5% from 1999 to 2006 (the most recent year for which data is available). It is a long-term trend that has been occurring for the past six years. Nonprofit industries that consistently add jobs include health care, education, and social services.
- ◆ Maryland's supply of registered nurses is projected to fall short of demand by 8% next year, according to the U.S. Department of Health and Human Services. The statewide gap is expected to reach 27% by 2015, which equates to approximately 13,000 nurses. That same year, the national supply is projected to have a deficit 20% or 507,000 nurses.
- ◆ Maryland is a national leader in the bioscience industry, with more than 400 bioscience companies in the state, and Frederick and Montgomery Counties have led the way, with a combined 40% of Maryland's bioscience workforce.

Maryland has invested more than \$450 million in bioscience infrastructure, and Governor Martin O'Malley recently announced his plan to seek an additional \$1.1 billion in state funds for the bioscience industry over the next ten years. There are growing indications, however, that the regional industry is experiencing barriers to continued growth. This is especially the case in Montgomery County, where lack of available development land, as well as high operating costs, are leading established and start-up organizations to consider moves to nearby areas with lower costs and more available land.

- ◆ Government services and related businesses are expanding at high rates, led in part by the BRAC (Base Realignment and Closure) of the Defense Department. In particular, Fort Detrick in the City of Frederick and Fort Ritchie just outside the County have been targeted to grow, by several thousand jobs. However, the direct job impact (those on the bases) is generally in highly specialized categories, requiring four-year degrees and above. The primary industries affected are bio-medical and medical.
- ◆ Frederick County is expected to be Washington County's primary competitor in attractiveness for life science firms. Its primary strengths lie in the developments at Fort Detrick; a substantial number of PhD's residing in the county; and the perception of relative closeness to epicenter of all life science, the National Institutes of Health (NIH). Much like Montgomery County, Frederick has also cultivated a vibrant community that is welcoming to a diversity of demographic groups. The Frederick County business community is also supportive of technology business incubation.
- ◆ By 2010, total employment growth at Ft. Detrick is expected to exceed 1,400 jobs. Ft. Detrick expansion is expected to have a fallout effect throughout the region. With access to space other services becoming more difficult to find, federal agencies, as well as emerging bioscience businesses that serve government agencies, will be searching for nearby facilities that offer the services they need to perform their missions.
- ◆ Corporate Office Properties Trust (COPT), the developer for Fort Ritchie, expects to lease 1 million square feet of office space, and bring 4,500 jobs to the county, in part by offering a secure setting to meet anti-terrorist protection requirements.
- ◆ Potential competition considered from areas west and north of Washington County in Allegany County, Maryland and Franklin County, Pennsylvania, is limited.

- ◆ America's Career Info Net was the source of the following occupational data.

HIGHEST-PAYING OCCUPATIONS Requiring an Associate's Degree or Post-Secondary Training FOR THE STATE OF MARYLAND			
#	Occupation	Median wages, 2006	
		Hourly	Annual
1	Computer Specialists, All Other	\$39.97	\$83,100
2	Nuclear Medicine Technologists	\$35.46	\$73,800
3	Registered Nurses	\$32.63	\$67,900
4	Radiation Therapists	\$31.81	\$66,200
5	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	\$31.57	\$65,700
6	Engineering Technicians, Except Drafters, All Other	\$31.27	\$65,000
7	Dental Hygienists	\$31.01	\$64,500
8	Diagnostic Medical Sonographers	\$30.65	\$63,800
9	Fashion Designers	\$27.86	\$57,900
10	Funeral Directors	\$27.81	\$57,800
11	Respiratory Therapists	\$27.64	\$57,500
12	Radiologic Technologists and Technicians	\$27.63	\$57,500
13	Real Estate Sales Agents	\$26.21	\$54,500
14	Electrical and Electronic Engineering Technicians	\$26.20	\$54,500
15	Electrical and Electronics Installers and Repairers, Transportation Equipment	\$26.04	\$54,200
16	Respiratory Therapy Technicians	\$26.00	\$54,100
17	Camera Operators, Television, Video, and Motion Picture	\$25.95	\$54,000
18	Electrical and Electronics Drafters	\$25.51	\$53,100
19	Industrial Engineering Technicians	\$25.10	\$52,200
20	Commercial Pilots	N/A	\$52,000
21	Telecommunications Equipment Installers and Repairers, Except Line Installers	\$24.82	\$51,600
22	Mechanical Engineering Technicians	\$24.54	\$51,000
23	Insurance Appraisers, Auto Damage	\$24.12	\$50,200
24	Interior Designers	\$23.24	\$48,300
25	Cardiovascular Technologists and Technicians	\$22.83	\$47,500

Washington County, MD

- ◆ Long known as a transportation, agricultural, and industrial hub, Washington County has responded to declines in its traditional economic base by beginning to build a more diverse economy. As a result, the county has experienced growth in such primarily service-based businesses as transportation, the financial sector, health care, and leisure and hospitality. While providing employment for thousands of workers, jobs in these sectors are typically less well paid than manufacturing jobs, which have experienced a 19.5% decrease in the county between 2001 and 2007.
- ◆ Washington County's April 2008 rate of 4.6 is up compared to April 2007 at 4.1.
- ◆ Washington County lost 385 jobs in March 2008 when the Fujicolor processing facility in Williamsport and the Raylock plant in Hancock closed. Due to the US economy, high fuel prices, and weakness in housing construction, Volvo Powertrain plant laid off 99 workers in April and 59 workers in June.
- ◆ Cinetic Landis Grinding Corp., a global manufacturer of precision grinding systems, has announced plans to relocate its manufacturing/assembly facility to Washington County, MD. This project will bring higher paying jobs to Washington County to the new \$10.5 million facility, which should be fully operational by October 2008. It is estimated 150 – 180 employees will be making the move to the new plant.
- ◆ Kellogg Company, the world's leading producer of cereal and convenience foods, has signed a long-term lease for its newest distribution center located in Hagerstown, MD.
- ◆ Large businesses offer their own employee training programs or provide professional development and training to employees through contract training, which is being negatively impacted as the economy slows. Meanwhile, for-profit postsecondary organizations, such as Kaplan College, will aggressively offer education and training programs in the area.
- ◆ Historically, Hagerstown's nickname of the "Hub City" came from the large number of railroads that served the city. Today that nickname applies as the the intersection of Interstates 81 and 70, which makes Washington County a critical transportation hub. In addition, this interstate system established Washington County as a home for commuters to the Baltimore and Washington DC employment areas.

- ◆ Warehousing is Washington County's fastest-growing industry according to a US Census report released June 2008 based on 2006 data. The report tracks business patterns and shows jobs in transportation and warehousing sectors in Washington County nearly doubled between 2002 and 2006, from 2,129 to 4,141. The growth can largely be attributed to the addition of three distribution center: Home Depot Direct, Tractor Supply, and Staples. In 2006 (the latest year for which data is available) the county house 3,568 businesses, more than 200 more than the 2002 report, and employed 61,994 people. Nearly 19% (662) of the 3,568 businesses were classified as retail.

Washington County businesses by industry, 2006

Industry description	Total establishments	% of total
Retail Trade	662	0.19
Construction	476	0.13
Other Services (except Public Administration)	407	0.11
Health Care and Social Assistance	400	0.11
Accommodation and Food Services	286	0.08
Professional, Scientific and Technical Services	230	0.06
Finance and Insurance	186	0.05
Administrative and Support and Waste Management and Remediation Services	162	0.05
Transportation and Warehousing	157	0.04
Wholesale Trade	151	0.04
Manufacturing	147	0.04
Real Estate, Rental and Leasing	122	0.03
Arts, Entertainment and Recreation	63	0.02
Information	52	0.01
Educational Services	29	0.01
Management of companies and enterprises	20	0.01
Unclassified	8	0
Utilities	5	0
Mining	3	0
Forestry, Fishing, Hunting and Agriculture Support	2	0
Total	3,568	

Source: U.S. Census Bureau report called "2006 County Business Patterns."

- ◆ Washington County's available, relatively low-cost land, as well as its comparative lower property taxes and operating costs, make the area potentially attractive for start-up and expanding companies. The county's proximity to the Baltimore-Washington metropolitan area makes it an attractive site for a variety of businesses and its transportation network incorporates air, rail, and interstate connections.
- ◆ Emerging industries in biotechnology along the Baltimore-Washington corridor and within Washington County will require specially trained workers. Over the next decade, approximately 10,000 new jobs are projected at Fort Detrick in Frederick, Maryland and the surrounding areas. In addition to developing the Biotechnology curriculum, the College has responded to this need by adding 11 "wet labs" to the Technical Innovation Center in FY 07 – FY 08 to provide research facilities for labs to support bio-science start-up firms.
- ◆ In addition to developing the Biotechnology curriculum, the College has responded to this need by adding 11 "wet labs" to the Technical Innovation Center to provide research facilities for labs to support bio-science start-up firms.

- ◆ With the recent change in State leadership, it is expected that more funding for corrections, as well as inmate education programs, will be available. Washington County houses three State correctional facilities.
- ◆ Additional investment in the future of bioscience in Washington County is represented by the construction of a 4,000 square-foot addition to the Technical Innovation Center (TIC), HCC's business incubator. The \$1.3 million addition, jointly funded by a state and local partnership composed of the Maryland Department of Business and Economic Development (DBED), the Maryland Technology Development Corporation (TEDCO), and the Washington County Board of County Commissioners, contains eleven private wet laboratories and one common laboratory. The wet lab addition opened in February 2008 and it is projected that by February 2009, all the labs will be leased.
- ◆ A large percentage of the local workforce is devoted to health care and services; financial services; education; state and local government; and transportation and warehousing.

TOP EMPLOYERS IN WASHINGTON COUNTY, MD - 2007		
Rank	Employer	Employment
1	Washington County Health System, Inc.	2,971
2	Washington County Public Schools	2,921
3	State of Maryland*	2,613
4	Citicorp Credit Services, Inc.	2,244
5	First Data Corporation	2,077
6	Volvo Powertrain North America	1,511
7	Washington County Government	1,080
8	Federal Government*	763
9	Staples Distribution Center	760
10	Hagerstown Community College	682
11	FedEx Ground	574
12	Good Humor - Breyers Ice Cream, Inc.	521
13	Phoenix Color Corporation	509
14	City of Hagerstown	494
15	Horizon Goodwill Industries, Inc.	431

* SOURCE: Hagerstown-Washington County Economic Development Commission, based on year-end data provided by employers.
 ** SOURCE: MD Department of Labor, Licensing and Regulation.

- ◆ Likely future career growth areas in the local workforce include healthcare; education; law enforcement; biotechnology; advanced technology including systems and management; financial services; defense industries; government; security; gerontology; and hospitality/tourism/culinary arts. The clinical and allied health fields are the single most promising sources of jobs locally, where demand for nurses and a broad range of other medical support workers will be substantial, especially as the population ages.
- ◆ The College's role in the County's and State's economic development continues to expand. HCC's clinical and allied health programs, along with other certificate/degree programs including teacher education, business, and technology-related development, will expand to help meet State and local work force needs.
- ◆ Business growth along the interstate corridors has created more employment opportunities in the Western Maryland. In the last 20 years, national financial transaction processing centers, large scale printing facilities, and major regional commercial centers have become major local employers.
- ◆ Approximately 20,500 individuals commute into Washington County to work each day while 17,000 Washington County residents commute out of the county on a daily basis to work in other jurisdictions.
- ◆ While the number of dairy farms in Washington County is the largest in Maryland (as is the land area of the County), the number of jobs is small.
- ◆ The historic development of Washington County has led to a unique blending of the past with the present. A challenge for the County is the preservation and balance of its historic rural character with the need to grow in order to effectively compete in the new global economy.

WORKFORCE AND ECONOMIC DEVELOPMENT: IMPLICATIONS FOR HCC

- ◆ There will be an increased demand for workforce training and re-training.
- ◆ The inter-related elements of economic development, education, and workforce creation must be united to present a comprehensive, targeted, and achievable plan to leverage Washington County's assets to attract, strengthen, and expand bioscience businesses.
- ◆ Continued visibility in the community and help HCC to continue to be seen as an important leader in economic development.
- ◆ Flexible instructional space that can be adjusted for a variety of teaching-learning settings is necessary to educate and train a competitive workforce.
- ◆ Similar to the rest of the country, the job market in the County and the State has shifted towards a service economy.
- ◆ Career programs with knowledge and skills will provide opportunities for career advancement, as well as transitions into related careers.
- ◆ The College's general education program will need to be more broadly based, with a focus on interdisciplinary, cross-cultural and global perspectives, as well as diversity awareness and education.
- ◆ The College's role in the County's and State's economic development continues to expand. HCC's clinical and allied health programs, along with other certificate/degree programs including teacher education, business, and technology-related development, must expand to help meet State and local critical shortage work force needs.
- ◆ The College has added several high skill and high wage occupational programs that include a ladder program in Nursing (2004); Phlebotomy and Medical Assisting (2005); Commercial Vehicle Transportation (changed from non-credit to credit program in 2006); and Web Design and Computer Simulation (2006). Four additional programs, all with foundations in science, will be developed by HCC over the next few years and include Biotechnology (Fall 2007); Pharmacy Tech (Fall 2008); and Ultrasound (Fall 2009).
- ◆ All areas of the local workforce will be increasingly affected by "Baby Boomer" retirements and the national trend to increase productivity through information technology, corporate downsizing and outsourcing, as well as the effects of national immigration policies. Many older workers will choose to stay in the job

market. As a result, there will be increased opportunities for part-time rather than full-time jobs that require expensive pensions and health-care coverage.

- ◆ Expanded programs, services, and delivery systems to meet the needs of diverse learners will be necessary to meet the labor needs of the service area.
- ◆ Criminal justice, corrections, legal and human services programs will expand.
- ◆ There will be a significant expansion of adult basic education programs and services to meet community and student needs. In addition, the achievement gap between those students in need of remediation and those who place into college-level courses is expected to lessen through outcomes-based developmental education.
- ◆ Forecasts in job growth, particularly local projections, are important for all HCC students as they prepare to join the labor force. These considerations are important for students to plan their course of study, to design a practical career path, to seek essential skills, and to prepare for the job market.
- ◆ The challenge for HCC will be to remain competitive and responsive while seeking appropriate and productive opportunities to partner with external organizations within its community.
- ◆ Emerging industries in biotechnology developing along the Baltimore-Washington corridor and within Washington County will require specially trained workers. Over the next decade, approximately 10,000 new jobs are projected at Fort Detrick in Frederick, Maryland and the surrounding areas. In addition to developing the Biotechnology curriculum, the College responded to this need by adding 11 “wet labs” to the Technical Innovation Center in FY 07 – FY 08 to provide research facilities for labs to support bio-science start-up firms. It should be noted that all the aforementioned programs are expensive to maintain and require dedicated or specialized facilities/instructional space and faculty.
- ◆ All areas of the workforce will be increasingly affected by “Baby Boomer” retirements and the national trend to increase productivity through information technology, corporate downsizing and outsourcing, as well as the effects of national immigration policies. Many older workers will choose to stay in the job market. As a result, there will be increased opportunities for part-time rather than full-time jobs that require expensive pensions and health-care coverage.
- ◆ Career programs with knowledge and skills will provide opportunities for career advancement, as well as transitions into related careers. The College’s general education program will need to be more broadly based, with a focus on interdisciplinary, cross-cultural and global perspectives, as well as diversity awareness and education.

- ◆ Based upon projections for workforce development, there will be a greater need for recruitment, orientation, development, and retention of diverse faculty, staff, and students.
- ◆ Expanded programs, services, and delivery systems to meet the needs of diverse learners will be necessary to meet the needs of the service area.
- ◆ There will be an increased demand for workforce training and re-training, as well as more emphasis on human service programs.
- ◆ Criminal justice, corrections, legal and human services programs will expand. With the recent change in State leadership, it is expected that more funding for corrections, as well as inmate education programs, will be available. Washington County houses three State correctional facilities.
- ◆ There will be a significant expansion of adult basic education programs and services to better meet community and student needs. In addition, the achievement gap between those students in need of remediation and those who place into college-level courses will be reduced through outcomes-based expansion of developmental education.
- ◆ Replacement of old technology and the implementation of new information technology are critical for educating the community, training the workforce and bridging the digital divide.
- ◆ HCC should explore new and emerging occupations in order to be ready for new economic initiatives that promote a knowledge economy.
- ◆ Service learning projects, and educational programs, through partnerships with other community entities would also be a strategy that would give the College visibility while providing a service to the community.
- ◆ Forecasts in job growth, particularly local projections, are important for all employees to understand as they help advise and educate/ train students. This is particularly true for advisors and career development specialists as they guide students in planning their course of study, designing a practical career path, seeking essential skills, and preparing for the job market.
- ◆ Recruiting efforts should be targeted toward high school students interested in the areas of science, math and engineering as jobs of the future require those content areas.
- ◆ HCC should formalize opportunities to provide wet lab space for Washington County Health System (WCHS) physicians who wish to conduct medical/bioscience research.

TECHNOLOGY

- ◆ The world is seeing an accelerating pace of technological change, an increasingly multidisciplinary nature of technology, and continued globalization. Technology is an integral part of our lives, the economy, and education. In Fall 2005, nearly 100 percent of all public schools in the US had access to the Internet, up from 35 percent in 1994. All education sectors are increasingly dependent upon technological development support systems for teaching and learning including distance learning, E-learning, distributed learning, hybrid applications, access to information on-line, local integrated systems, and migration to fused media.
- ◆ According to Internet World Stats and US Census Bureau's 2007 Estimated Population, 69.9% of the US population uses the internet compared to the world estimate of 17.8%.
- ◆ Mobile computers (notebooks and laptops) are on the increase in U.S. homes according to MetaFacts 2006 Profile Report. Overall 51.8 million or 30.2% of US homes use mobile computers as their primary home computers.
- ◆ Technology is the driving force behind the newest test of community colleges' agility. It impacts all aspects of a community college, from students to faculty to staff. Technology not only affects what happens in the classroom, but what the classroom looks like. Overall, it affects how the college runs its business and changes the structures of the college.
- ◆ Technological advances make it possible for people to live longer. As the overall population increases, community college enrollment is expected to grow. Technological innovations in the workplaces are expected to continue to fuel community college enrollment by people seeking training and skills upgrades. Distance learning technologies may increase community colleges' capacity without massive new building projects. Through distance learning, the Internet and other means, colleges can compete on a greater scale overcoming limitations in size, location, and costs.
- ◆ Rapid advances in information systems, technology and its applications are having a profound impact on teaching and learning, necessitating that colleges invest in technology and integrate it into curriculum and instructional practices.
- ◆ The rapid integration of evolving and emerging technologies will influence how people live, learn and work. Hence, the public in general and students in particular, are putting an increased importance on the use of technology in education and training. Thus, there is a need for an interdisciplinary teaching approach that combines information technology, science and engineering.

- ◆ Technology in the biosciences will have a dramatic impact and influence during the next decade. The revolution of information availability and utility, and the use of multidisciplinary technology open the opportunity for technological breakthroughs and advancements.
- ◆ Wi-Fi or wireless connectivity of the web has reached critical mass. It has become a matter of convenience.
- ◆ Mobile wireless intelligent network connected devices similar to PDA's are being used by students and faculty. The devices work effectively everywhere. Other emerging instructional technology developments are tablet sized personal computers, wearable computer devices as well as hand-held computers.
- ◆ Higher education institutions increasingly use the Internet for distance education. Students expect the availability of wireless networks and immediate connectivity/ access to the Internet for e-mail and class assignments and projects. Students connected to the Internet are finding they can go anywhere in the world to learn. Students today have increasing choices about who provides their education and what mode of delivery best fits their busy lifestyle. Because of this trend community colleges have the opportunity to serve more students than those just in their service areas.
- ◆ Effective programming in distance learning and on-line education requires application of best practices in designing and delivering instruction. The expansion of on-line and distance learning and a commitment to the assessment of student learning outcomes are required of any community college wishing to remain competitive and effective. To do so requires sound faculty and staff development programs and the funding to maintain the curriculum and equipment necessary for quality programming.
- ◆ Electronic portfolios will become a more common place repository for student work.
- ◆ Preparation of students for and evaluation of learning in distance education programs is an important priority for all institutions of higher education.
- ◆ The advancement in technology represents another challenge that has significantly impacted traditional methods of delivery. Many students come to campus expecting to find a far more sophisticated environment than the one that exists. The so called iPod generation is demanding eye-catching visuals, interactive instructional methods, and active engagement in learning.
- ◆ Many students are already comfortable with the newest technological devices as they use camera phones, keep Blogs, use wireless devices effortlessly, use Instant Messaging (IM) constantly, and regularly use videoconferencing and Internet based telephony. Though many will not need training in the use of these

tools, some will. Meeting the needs created by these varying degrees of expertise is a challenge.

- ◆ With the expansion of on-line learning opportunities for students, issues of faculty training and development, intellectual property rights, adequacy of technical infrastructure and evaluation of learning are becoming major pieces of the accountability concerns for this relatively new mode of student learning.
- ◆ Tuition costs at online institutions tend to be significantly higher than those of community colleges and many four-year institutions.
- ◆ Although data is limited, the FCC POTS (“plain old telephone service”) 2000 – 2005 subscriber numbers decreased. Some households are disconnecting landlines and only using cell phones.
- ◆ Having the ability to do mass messaging is becoming more important on college campuses today. The potential use of such a messaging system is important for emergency messaging and campus-wide announcements.
- ◆ Technological security at the college is also an essential issue, which includes security of institutional databases, as well as the security of its students when online. The issues of computer viruses and worms will likely continue. Due to the large quantities of downloading and internet surfing worms and viruses are rampant on college campuses and can be quite expensive to be removed.
- ◆ A survey released in October 2005 by Consumer Reports Webwatch found that 86% of computer users have changed their online behavior due to identity theft concerns.
- ◆ Technological changes will pave the way for a greater demand for data transparency. Transparent data are those that can be accessed from one entry point, such as your personal web page, and are constantly available. Transparent data are critical for speeding up the pace of institutional planning. Decisions need to be data driven, with data easily found and manipulated for fast turn around. Data transparency is not limited to college administration. Students need transparency within their own data sets so they can increase their learning. Use of a student portal should allow individual students to see all of their own data and interact with data sets that will help them make decisions.
- ◆ With changing demographics nationally, as well as locally, students should be able to speak any language because of translation software. This will allow the classes to become more tailored for each student while simultaneously expanding enrollments internationally. While a lecture going on, students will be able to pull up information, on their individual screen, for a topic for which they are having trouble.

- ◆ According to the Microsoft Corporation, the following are technological changes that will be used in colleges across the country by 2020:
 - Simulation technologies and powerful sensor technologies provide scaleable models engage in learning by doing. Sensors in laboratories provide students feedback as they reconstruct and deconstruct various objects in real time, with real materials.
 - There are intelligent laboratory objects where technology is embedded in them. Students receive physical components that instruct the students on how to design, test, and connect them together. Instrumentation is also managed remotely. Internet based laboratories are the norm where students are able to run laboratory experiments wherever they find them.
 - All scientific disciplines require increasing amounts of computing sophistication. Thus, students will need to know how to program software. So, students must be taught to identify opportunities and customers, manage their requirements, provide effective documentation, and manage source code.
 - Voice technology eases communication as students will wear technology on their clothing.

- ◆ As reported by the National Intelligence Council, biotechnology, (the use of living organisms to make a product or run a process) is revolutionizing industry, modern medicine and agriculture, will show continued expansion improving the quality and length of human life. The ability to work and manipulate materials using technology at the “nano” level will allow industry in general to better design and produce chemical, fluidic, optical, mechanical and biological components. Not only are these technologies having impact on our lives, but they are heavily intertwined, making the technology revolution highly multidisciplinary and accelerating progress in each area. Fundamental changes in what and how we manufacture will produce unprecedented customization and fundamentally new products and capabilities.

- ◆ Nanotechnology is a type of manufacturing technology that will build objects from the atom up as well as be able to manipulate atoms within a current structure. It is technology that works with elements the size of a nanometer, and it will play a major role in the future of security, medicine, economic productivity, and environment. The National Science Foundation estimates that 2 million workers are expected to be needed to support the industries of nanotechnology worldwide within the next 15 years.

- ◆ With new technology also comes the issue of cost. Technology has the costs of employees that can install and maintain the new technology as well as the cost of the technology itself. Classrooms are seen as out of date if technology is not used. Therefore, the issue becomes how to balance an effective classroom at reasonable cost.

- ◆ Alternate sources of revenue can increase institutional giving by leveraging technology. As funds from the state continue to tighten, Institutional Advancement offices at community colleges look for new sources of funding. The institution's enterprise system can be tapped for valuable data leading to improved targeting of Alumni for events and fund-raisers that will particularly interest them.

TECHNOLOGY: IMPLICATIONS FOR HCC

- ◆ The College should be a leader in technology training and usage. There will be a great need and demand for highly trained faculty.
- ◆ The adoption of tools, such as course management systems and the potential availability of wireless access to classrooms and labs, continues to change practices in the classroom. Technology, as a tool, is an important direction for the learning community to embrace, as it reflects what is occurring in the world-at-large.
- ◆ HCC faculty must remain current in the processing of information and mastering technology applications so that these tools can be used to maximize teaching and learning. Therefore, training and support systems are critical to the success of program delivery for both the instructor and student. Increased investments in equipment, services and professional development must continue.
- ◆ A challenge exists to recruit and retain highly trained staff in the competitive market place to maintain the technology networks and systems.
- ◆ Recognizing the varying skills that students have related to the use of technology, training for those levels should be offered. One way to do this might be through online training modules, with some training being delivered in labs around campus. HCC constituents need to plan for a future in which the campus is immersed in a data rich environment with online augmentation for classroom based instruction and lots more off-campus interaction between learners and teachers.
- ◆ HCC must plan, allocate and expend resources to secure and protect its technology, including infrastructure. To do this effectively, the College must refine and maintain an integrated technology plan and system. Planning must occur at the operational and strategic levels.
- ◆ Distance learning and on-line education will continue to have a major impact on traditional instructional facilities planning and development.
- ◆ A challenge confronting the College and Washington County is to assure that all citizens have access to computers and to the Internet.
- ◆ Enrollment in HCC's online courses has increased by over 40% in the last two years, a trend that is expected to continue.
- ◆ Successful program development in technologies is related to a continuing assessment of the appropriate balance between virtual and face-to-face

interactions. The College must determine that appropriate balance as it continues to offer credit and non-credit programs to meet the needs of students and the community.

- ◆ Technology security in areas of infrastructure, hardware and software, is essential at all levels of an institution, regardless of mission or function. The College should develop courses and training accordingly (cyber-security, etc.) to meet internal and community needs.
- ◆ The College should develop opportunities with WCHS physicians conducting research to teach in HCC's credit biotechnology and other science programs.

PUBLIC POLICY AND ACCOUNTABILITY

- ◆ The public will continue to demand increased return on its investment in education. From an institutional point of view, this will require much better results when assessing institutional effectiveness. Not only will it mean educators must increase their ability to measure it, to assure the validity and reliability of the data being gathered and used, but also they must show evidence of continuous improvement in quality in order to remain competitive. As competition in the educational arena increases from for-profit educational providers, community colleges will need to continually improve to survive.
- ◆ Accrediting bodies, through their standards, expect institutional commitments to providing high quality education congruent with their institutional mission. Colleges are required to conduct ongoing institutional evaluation and improvement. Evaluation must focus on student achievement, student learning, and the effectiveness of processes, policies, and organization. Institutions are required to make improvements through an ongoing and systematic cycle of evaluation, integrated planning, implementation, and re-evaluation.
- ◆ Accountability challenges related to performance are requiring more comprehensive monitoring of student outcomes data related to special initiatives developed to improve student performance. Student learning outcomes are central to accreditation standards. Student learning outcomes are knowledge, skills, abilities, and attitudes that a student has attained at the end (or as a result) of his or her engagement in a particular set of collegiate experiences. Institutions are asked to demonstrate the effectiveness of its efforts to produce and support student learning by developing student learning outcomes at the course, program, and degree level. Student learning outcomes must be measured and assessed to determine how well learning is occurring so that changes to improve learning and teaching can be made. Colleges must show evidence of a conscious effort to create a culture of evidence.
- ◆ Accreditation standards emphasize the need for integration of the college's many planning activities, with an emphasis on the integration of planning and budgeting. As components of accountability mandates, educational entities need to demonstrate, through outcomes assessment and cost benefit studies, efficiencies in all areas, including academic programs, support services and administration. Additionally, colleges are required to demonstrate institutional integrity (i.e., concern with honesty, truthfulness, and the manner in which it represents itself) to all stakeholders, internal and external.
- ◆ Government will continue to be involved in education, establishing standards and demanding accountability. In all probability, the government will not be able to provide the strong or consistent financial support institutions require. Government

support for educational institutions is subject to change and often accompanied by performance mandates and “other strings” attached.

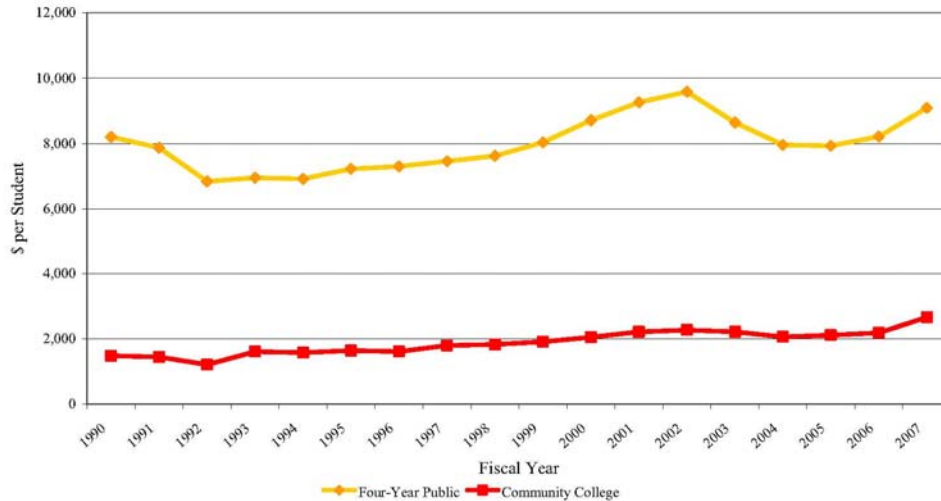
- ◆ Flat or diminished public resources will require community colleges to be more productive with the resources they have, pursue innovative partnerships with community entities, and be more innovative in fundraising.
- ◆ The current political climate calls for a better response from colleges and universities to address the critical shortage of teachers and nurses.
- ◆ Diversity awareness, support, and programming will become increasingly central to the community college’s mission.
- ◆ With a greater array of choices for the community, competition will present a challenge to make programs responsive, accessible, convenient, and current.
- ◆ Managing internal data has become imperative in this age of accountability. Getting the right data into a resource system(s) and then getting it back out has posed many challenges for community colleges.
- ◆ Total estimated federal spending for 2008 will be about \$2.93 trillion, a 7% increase over last year. Below is a partial list of categories that are financed by your tax dollars, according to the Office of Management and Budget.

2008 Federal Spending	Budget Dollar in Billions
Consumer & Occupational Health & Safety	\$3.1
Federal Prison System	\$6.2
Disaster Relief & Insurance	\$12.0
International Development & Humanitarian Aid	\$14.3
National Institutes of Health	\$28.6
Food & Nutrition Assistance	\$60.2
Homeland Security	\$64.9
Medicare	\$396.0
Military Spending	\$583.0
Social Security	\$615.0

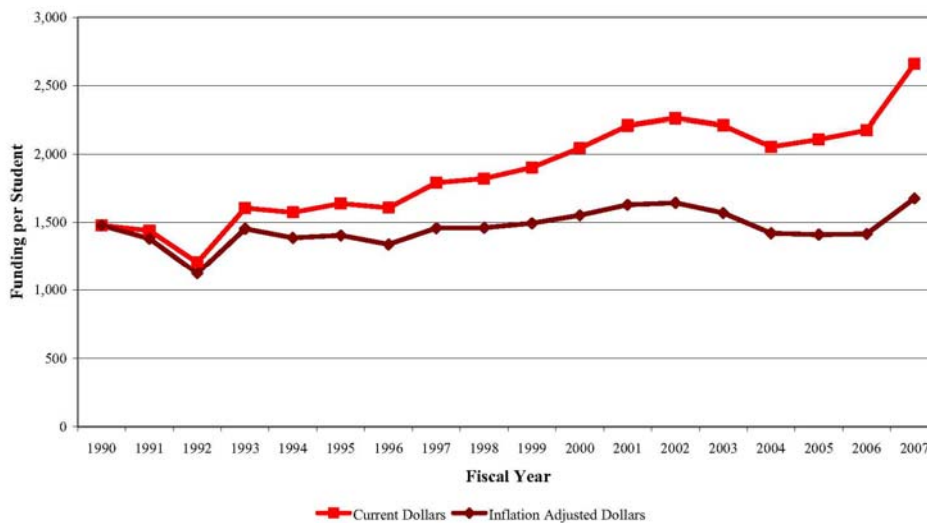
State and Local

The following analyses were published in Maryland Association of Community College's 2008 Trendbook.

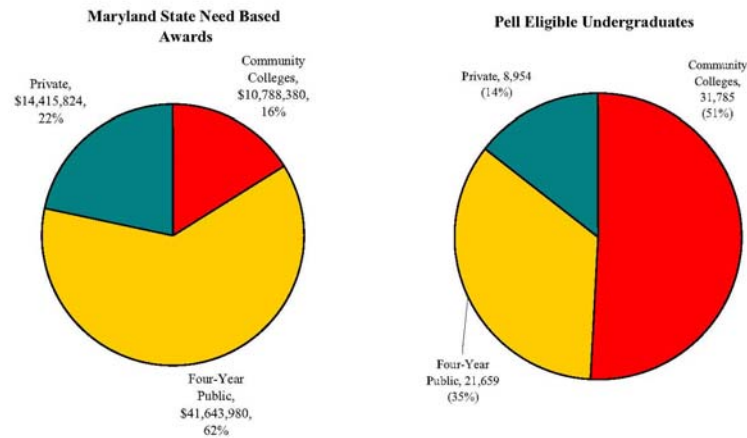
- ◆ Maryland State funding per community college student is about 25% of four-year public institutions.



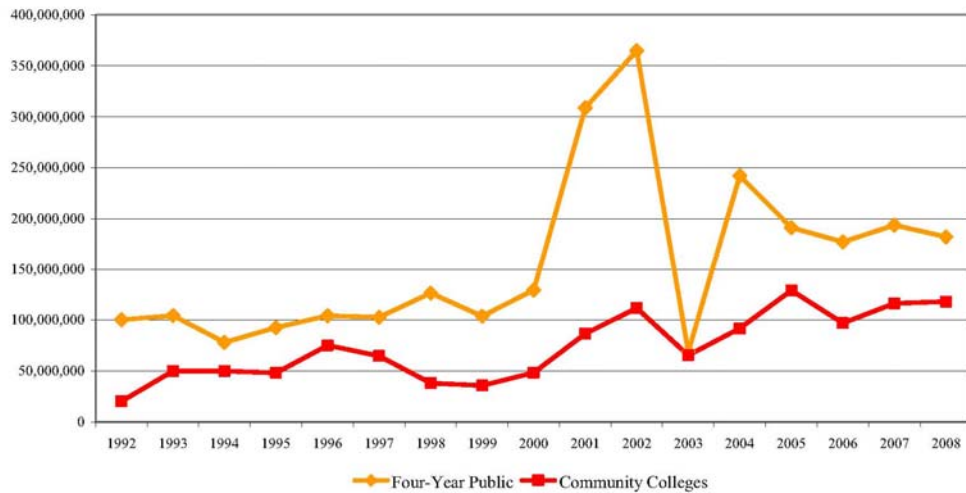
- ◆ State Aid per community college student, adjusted for inflation, is nearly the same as in 1990.



- ◆ Maryland Community College students receive a small portion of State grants but represent the largest number of needy undergraduates.



- ◆ Maryland Community Colleges average less than half of the capital funding (including local support) versus four-year public institutions.



- ◆ State Government is encouraging community colleges to focus on expanding and enhancing partnerships, especially with industry groups and the University system.
- ◆ Post-secondary accountability in Maryland is monitored primarily through the Maryland Higher Education Commission, which uses as its primary model, the annual Maryland Performance Accountability Report.

- ◆ State and local level priorities in both the policy and fiscal arenas greatly influence direction setting for HCC. Several key issues are likely to impact local policy. These include issues related to: accountability; accreditation; budget; general enrollment growth, as it relates to facilities planning; local population growth related to environmental concerns; distance learning; and part-time faculty.
- ◆ Recent State appropriations for higher education show a continuation of long-term trends of increased reliance on tuition dollars. Although state appropriations continue to increase, they increase at a decreasing rate in comparison to revenue produced through tuition increases.
- ◆ Elected officials and government agencies at all levels are influential in making public policy that supports public education/training and economic development that have significant impacts on their communities.

PUBLIC POLICY AND ACCOUNTABILITY: IMPLICATIONS FOR HCC

- ◆ Because of continuing budgetary pressures, the State government will continue to press higher education for greater accountability and program efficiencies.
- ◆ There will be greater State interest in improving cost effectiveness of articulation and transfer, particularly in high need fields, such as teaching, and/or high-cost program areas such as allied health.
- ◆ Using their understanding of national, state, and regional economic trends, State and County officials should create a unifying vision for the future development of the area, including, but not limited to, infrastructure, transportation, zoning, education, and promotion of business/industry within and outside of Washington County and Maryland.
- ◆ The College will continue its diversified efforts to secure the resources needed to continue to address its steady enrollment growth. In addition, the College will be more proactive in seeking resources that support programs designated to help with local economic and cultural development. The College will continue to seek CIP funding from the County and the State necessary to upgrade and expand instructional facilities that support arts and sciences instruction, both those courses that help with career and transfer curricula.
- ◆ Leadership in developing a seamless K-16 continuum of education will be important as collaborative partnerships are developed.
- ◆ Student learning outcomes assessment and curriculum management will continue to be a driving force in instruction.
- ◆ HCC must continue to implement student learning outcomes assessment in all programs and courses to demonstrate and document the knowledge and skills students have mastered.
- ◆ Flexible learning, not tied to time and space, will receive greater emphasis. In the next decade, use of expansion of virtual classrooms, performance indicators, curriculum development and the use of various teaching modalities, the re-definition of faculty loads and qualifications, and an expansion of experiential learning and credit for life experiences will dominate higher education and impact facilities development.
- ◆ The College is beginning to use its Institutional Effectiveness Plan and data measures to present the most important indicators of accountability to the College community, funding agencies, and accrediting bodies that are

increasingly insisting on learning outcomes as a primary measure of performance. The College's unit planning process focuses on analyzing and using information about the institutional resources (human, financial, facilities, technology), organizational climate and internal communication, enrollment trends, student demographics, student success and progress, and student services.

- ◆ The College will continue to pursue competitive grant funds and establish community partnerships, especially in those areas where substantial curricular and related student growth is anticipated.
- ◆ The Facilities Master Plan will be updated and a first-ever campus development plan will be completed, both of which will require additional planning with the County Commissioners to secure multi-year CIP funding commitments.
- ◆ The College will expand the use of cost/benefit unit data in the planning and budgeting processes to determine or verify that the College is using its resources in an effective and efficient manner. Reallocation of resources, as necessary, to assure the College's continued success would be an outcome of this initiative.
- ◆ HCC will continue to build strategic partnership projects with USM – Hagerstown Center and other universities, area public and private schools, PenMar, COPT, local health systems and hospitals, as well as business and government entities will remain priorities.

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