International:

The World Economic Forum (WEF) charts the progress of countries as participants in economic activity. Two recent studies deal with its rankings of global competitiveness and progress of the global economy. Excerpts from those reports follow.

Global Competitiveness Rankings (2006):

- Transforming events in recent years include the fall of international barriers to the flow of goods, services, capital and labor and the acceleration in the pace of technological and scientific progress
  - Location has become less important
  - Governments are more sensitive to creating friendly business climates
  - Shifts in factors that drive productivity
- Education and training (ensuring the labor force has access to new knowledge and is trained in new processes and technologies) have emerged as key competitiveness drivers
- Global Competitiveness Index (GCI) assesses the competitiveness of nations
  - Separates countries into three stages
    - Factor-driven
    - Efficiency-driven
    - Innovation-driven
  - Rankings
    - Switzerland #1
    - U.S. #6 (down from #1 in 2005)
      - World leader in market efficiency, innovation, higher education and training and business sophistication
      - Macroeconomic indicators are imbalanced, and levels of efficiency and transparency in public institutions don’t match other developed industrialized countries
        - Health and primary education - #40
        - Macroeconomy - #69
        - Efficiency enhancers - #1
        - Higher education - #5
        - Market efficiency - #2
        - Technological readiness - #8
        - Innovation - #2
    - India #43
      - High scores in capacity for innovation and sophistication of firm operations
      - Weaknesses in coverage of educational opportunities and poor-quality infrastructure limit equitable distribution of growth
    - China #54 (down from #48 in 2005)
      - Macroeconomic rank is very high (#6) due to low inflation, high savings rates and manageable public debt
• Low penetration rates for latest technologies, and secondary and tertiary school enrollments low by international standards (but still higher than those in India)
  ▪ Brazil #66 (down from #57 in 2005)
  ▪ Russia #62 (down from #53 in 2005)
• Business Competitiveness Index (BCI) assesses microeconomic competitiveness
  o Rankings based on microeconomic competitiveness, business environment conditions, and sustainability of current levels of prosperity
  o Authors of the study estimate that BCI explains >80% of GDP per capita across the countries covered
  o Competitiveness issues (addressed in papers appended to the report)
    ▪ Global imbalances
      • U.S. deficit growth as a share of GDP arguably is unsustainable
      • U.S. consumes 70% of the world’s net savings
    ▪ Corruption (internal and cross-border)
    ▪ Employment stability, security and flexibility
    ▪ China and India – author makes the case that India is better positioned for future growth than is China
  o Rankings
    ▪ U.S. #1
    ▪ India #27
    ▪ Brazil #55
    ▪ China # 64
    ▪ Russia # 79

WEF Annual Meeting, 2008 (thematic organization of the report and findings):
• Economic insecurity
  o We are in the midst of rebalancing wealth away from the West and toward the emerging countries of Asia and the Middle East
  o Shift is occurring faster than anticipated
  o Yew (Dean at National University of Singapore) “In the Industrial Revolution there was a rapid increase of living standards of 50% in one lifetime. In Asia today in one lifetime you will see an increase of 10,000%.”
  o Dangerous side effects
    ▪ Widening income disparities
    ▪ Inflation
    ▪ Environmental degradation
      • Without dramatic advances in resource efficiency and reductions in emissions, universal prosperity is environmental suicide
      • Stiglitz (Nobel prize winning economist) “If everyone tries to consume the way America has consumed, the world is not viable.”
  o Sustainable global growth requires long-term investments in human capital, education, health and environmental protection
• Geopolitics
  o Legacy institutions of global governance are unable to effectively address the interconnected, complex problems of a multipolar world
Collaboration among nations is insufficient to address global problems, such as global water supplies, but requires participation of business and civil society

- **Business competition and collaboration**
  - Survival and prosperity will be based on winning the war for talent, ability to rapidly innovate, and collaborating (including with the competition)
    - Markets reward swift and agile companies
    - Truly responsive companies must be good as well as great
  - Mobile technology has become a powerful tool
    - Mobile phone owners will grow from 3 billion now to 4 billion in 2 years
    - Internet and mobile ads are surging and television ads are waning
  - Globalization decentralizes power while demographic differentials heighten the fight for human talent
  - Open source results in more robust but not more innovative practices – how to innovate is less complex than knowing what to innovate

- **Science and technology**
  - Advances are challenging assumptions about human experience – i.e., death is inevitable, but when and how it happens is less a mystery
  - Science is outpacing public ability to understand its accomplishments and weigh the implications
  - Advances in understanding, e.g., DNA, genetics, lifespan, all paralysis all provide more control over health and lifespan
  - Changes the rules of the labor force and health care (more personalized rather than one size fits all)
  - Total costs of healthcare will rise

- **Values and society – Tony Blair (former British Prime Minister)** “Globalization is a fact, but the values that govern it are a choice.”
  - Deeper study is needed on the impact of globalization on cultures, societies and values since it appears interconnectedness has not led to more secularization or homogenization but in fact exacerbated divisions
  - Economic opportunity must be combined with values centered on justice and freedom to ensure long-term sustainability
  - Learning institutions must work to promote empathy and understanding
  - By 2050, urban areas will hold 75% of world population (up from 50% now)
  - Internet can play a critical role in education to bridge divides
    - Increasing number of students worldwide graduate with degrees from online programs
    - Bottom billion worldwide does not have access to internet
    - 800 million adults worldwide cannot read
    - 200 million children worldwide are in the workplace and not school
United States:

**Economic projections:**

The Congressional Budget Office (CBO) is charged with preparing budget and economic projections as an aid to the U.S. Congress. Excerpts from its most recent projection include:

- **Basic assumptions and terms**
  - Congress does not fix the impact of the Alternative Minimum Tax (AMT)
  - Congress does not extend the lower tax rates of 2001 and 2003
  - Discretionary funding will grow at the rate of inflation (which is lower than the projected growth rate in GDP)
  - No additional funding in 2008 for Iraq and Afghanistan conflicts
  - Future funding for the war on terrorism remains equivalent, in inflation adjusted terms, to $88 billion appropriated currently
  - Mandatory spending programs – empowered by legislation other than annual appropriations, e.g., entitlement programs such as social security, Medicare, etc.
  - Discretionary spending – depend on annual appropriations for spending authority
  - On-budget – revenues and outlays covered by annual budget process
  - Off-budget – surplus or deficit in revenues over outlays from the old-age and survivors and the disability trust funds of Social Security

- **Projections**
  - Total deficit expected to shrink over next 4 years; surpluses starting in FY 2012
  - Off-budget surplus expected to increase until FY 2018
  - Public debt held by the public (as opposed to portion held intergovernment) expected to increase until FY 2011 and then decrease
  - GDP expected to rise from $14.2 trillion in FY 2008 to $22.35 trillion in FY 2018
  - Social security spending annual growth is projected to increase from 5.1% to 6.4% over the 2008 – 2018 period
  - Medicaid is projected to grow 7 – 8% annually, or at twice or more the rate of growth in the GDP

- **Effect of addressing policy assumptions not covered in baseline budget**
  - Indexing AMT (with related increase in debt service on public debt) would add $913 billion to the deficit over 2009 – 2018
  - Extending the 2001 and 2003 tax rate adjustments (with related increase in debt service) would add $2.721 trillion to the deficit over 2009 – 2018
  - Interactive effect of indexing AMT and extending 2001 and 2003 rate adjustments (with related increase in debt service) would add $703 billion to the deficit over 2009 – 2018
  - Extending other expiring tax provisions (e.g., deduction of student loan interest, teacher’s supplies, etc.) (with related increase in debt service) would add $535 billion to the deficit over 2009 – 2018
  - Increasing discretionary spending at the same rate of growth as the increase in GDP (with related increase in debt service) would add $1.64 trillion to the deficit over 2009 – 2018
Since the budget surpluses in out years are small, any changes to the programs or assumptions above would be funded by increases in public debt

_Labor market projections:_

The most recent projections for U.S. job growths from the Bureau of Labor Statistics indicates that growth in the labor force will slow significantly between 2006 and 2016 primarily due to the aging and retiring of the baby boom generation and the peaking of labor force participation by women. Self-employment is projected to rise by 5.5% during the period. Occupations requiring a bachelor’s degree, or higher, for entry level will grow faster than the average for all occupations. Overall, the projections indicate that 15,600,000 new jobs will be created over the period. However, replacements for retiring workers will drive the demand for new jobs higher than that number would indicate.

Fastest growing occupations (those with the highest growth rate change over the ten-year period) requiring a bachelor’s or higher degree include (Table 2 of report):

- Network systems analysts
- Computer software engineers
- Personal financial advisors
- Substance abuse and behavioral disorder counselors
- Financial analysts
- Forensic science technicians
- Mental health and substance abuse counselors and social workers
- Marriage and family therapists
- Computer systems analysts
- Database administrators

Largest job growth occupations (those with the largest number of jobs to be created over the ten-year period) requiring a bachelor’s or higher degree include (Table 3 of report):

- Registered nurses (lists associate degree – not sure where the break point is between this degree and a 4-year in terms of jobs – not listed)
- Postsecondary teachers
- Computer software engineers
- Accountants and auditors
- Elementary school teachers
- Management analysts
- Computer systems analysts
- Network systems analysts

The only occupation listed in the largest decline table (Table 4 of the report) that requires a bachelor’s or higher degree is computer programmers.

Specific projections are provided in the Appendix to the article for all job titles maintained by the BLS. The following table contains excerpts from the Appendix – note that numbers are in thousands. The presentation order is from the table, which is based on the BLS National Employment Matrix code and title. **Bold** headings are broad categories. The difference between
the number of projected new jobs and the Total column is the replacement workforce that, while not new jobs, also will need to be educated and prepared to enter the workforce. For many occupations, the replacement positions are significantly greater (i.e., factors of 2 to 5 times) than the new positions. No attempt was made to include all majors and programs at Creighton, but instead to select areas that seemed to indicate significant growth potential.

<table>
<thead>
<tr>
<th>Job title</th>
<th>Actual 2006</th>
<th>Projected 2016</th>
<th>New jobs (number)</th>
<th>Percentage increase</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Management and business:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advertising</td>
<td>583</td>
<td>651</td>
<td>68</td>
<td>11.7</td>
<td>198</td>
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<tr>
<td>Computer systems</td>
<td>264</td>
<td>307</td>
<td>43</td>
<td>16.4</td>
<td>86</td>
</tr>
<tr>
<td>Financial</td>
<td>506</td>
<td>570</td>
<td>64</td>
<td>12.6</td>
<td>138</td>
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<tr>
<td>Education administrators</td>
<td>443</td>
<td>496</td>
<td>53</td>
<td>11.9</td>
<td>176</td>
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<tr>
<td>Human resources</td>
<td>732</td>
<td>862</td>
<td>130</td>
<td>17.8</td>
<td>288</td>
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<tr>
<td>Accountants and auditors</td>
<td>1274</td>
<td>1500</td>
<td>226</td>
<td>17.7</td>
<td>450</td>
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<tr>
<td>Financial analysts</td>
<td>501</td>
<td>655</td>
<td>153</td>
<td>30.6</td>
<td>210</td>
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<tr>
<td><strong>Science and engineering:</strong></td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>Computer and math science</td>
<td>3313</td>
<td>4135</td>
<td>822</td>
<td>24.8</td>
<td>1568</td>
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<tr>
<td>Environmental engineers</td>
<td>54</td>
<td>68</td>
<td>14</td>
<td>25.4</td>
<td>30</td>
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<tr>
<td>Biochemists and biophysicists</td>
<td>20</td>
<td>23</td>
<td>3</td>
<td>15.9</td>
<td>7</td>
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<tr>
<td>Environmental scientists</td>
<td>123</td>
<td>152</td>
<td>30</td>
<td>24.2</td>
<td>61</td>
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<td><strong>Social scientists:</strong></td>
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<tr>
<td>Market and survey researchers</td>
<td>261</td>
<td>313</td>
<td>51</td>
<td>19.7</td>
<td>69</td>
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<tr>
<td>Psychologists</td>
<td>168</td>
<td>191</td>
<td>25</td>
<td>15.3</td>
<td>51</td>
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<td><strong>Community and social services</strong></td>
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<tr>
<td>Community and social services</td>
<td>2,386</td>
<td>2,927</td>
<td>541</td>
<td>22.7</td>
<td>945</td>
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<td>Lawyers</td>
<td>761</td>
<td>844</td>
<td>84</td>
<td>11.0</td>
<td>228</td>
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<td><strong>Education:</strong></td>
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<tr>
<td>Postsecondary</td>
<td>1,672</td>
<td>2,054</td>
<td>382</td>
<td>22.9</td>
<td>662</td>
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<tr>
<td>Elementary</td>
<td>1,540</td>
<td>1,749</td>
<td>209</td>
<td>13.6</td>
<td>545</td>
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<tr>
<td>Secondary</td>
<td>1,133</td>
<td>1,187</td>
<td>54</td>
<td>4.8</td>
<td>396</td>
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<tr>
<td><strong>Healthcare practitioners:</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dentists</td>
<td>161</td>
<td>176</td>
<td>15</td>
<td>9.1</td>
<td>46</td>
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<tr>
<td>Pharmacists</td>
<td>243</td>
<td>296</td>
<td>53</td>
<td>21.7</td>
<td>95</td>
</tr>
<tr>
<td>Physicians and surgeons</td>
<td>633</td>
<td>723</td>
<td>90</td>
<td>14.2</td>
<td>204</td>
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<tr>
<td>Registered nurses</td>
<td>2,505</td>
<td>3,092</td>
<td>587</td>
<td>23.4</td>
<td>1,001</td>
</tr>
<tr>
<td>Occupational therapists</td>
<td>99</td>
<td>122</td>
<td>23</td>
<td>23.1</td>
<td>37</td>
</tr>
<tr>
<td>Physical therapists</td>
<td>173</td>
<td>220</td>
<td>47</td>
<td>27.1</td>
<td>68</td>
</tr>
<tr>
<td>Dental hygienists</td>
<td>167</td>
<td>217</td>
<td>50</td>
<td>30.1</td>
<td>82</td>
</tr>
<tr>
<td>Emergency medical technicians</td>
<td>201</td>
<td>240</td>
<td>39</td>
<td>19.2</td>
<td>62</td>
</tr>
<tr>
<td>Healthcare support occupations</td>
<td>3,724</td>
<td>4,721</td>
<td>997</td>
<td>26.8</td>
<td>1,399</td>
</tr>
</tbody>
</table>

**Miscellaneous Economic trends and projections:**

Pew Center on the States projects the state and local budget impact of commitments for retirement and health care benefits for retirees will exceed $2.7 trillion over the next decade. A coverage rate of 80% or better (i.e., funds set aside to meet the commitments) is the standard. The coverage rates for selected states:

- Colorado – 74%
• Idaho – 95%
• Illinois – 60%
• Iowa – 88%
• Kansas – 69%
• Minnesota – 93%
• Missouri – 81%
• Montana – 80%
• Nebraska – 89%
• North Dakota – 81%
• South Dakota – 97%
• Utah – 96%
• Wisconsin – 100%
• Wyoming – 95%

Public optimism about future well-being has decreased. Pew reports that only 34% (compared to 55% in 1999) of recent adult respondents to their survey indicated that they thought today’s children would be better off, when they grow up, than people are today. People were more optimistic that their own children would be better off (56%, down from 66% in 1999). Immigrants generally (47%) and Hispanics (50%) thought children would be better off.

Americans generally rate their work experience as worsening. Pew reports that job satisfaction is down for older (over 50) workers to 30% in 2006 (from 43% in 1989) but over the entire workforce there is no change (28% satisfaction rate). People believe American workers work longer hours, for lower wages and fewer benefits. They feel employers are less loyal to them and that workers are less loyal to employers. Outsourcing is seen as a major detriment to U.S. workers by 77% of the respondents, and 55% view immigration as a detriment. Other findings:

• 52% view health care as worsening
• 45% feel family life is suffering
• 43% indicate there is a decrease in leisure time
• 34% feel education is worsening (but another 34% feel education is improving)
• Who needs more education and training to get ahead in their job and career?
  o 27% of college graduates
  o 55% of 18-29 year-olds
  o 43% of 30-49 year-olds
  o 30% of those 50 and older
• compared to 20 to 30 years ago
  o 62% report less job security
  o 69% report more job stress
  o 56% report less employer to employee loyalty
  o 51% report less employee to employer loyalty
  o 44% report health care and vacation benefits are not as good
  o 51% report retirement benefits are not as good
  o 70% report the average worker has to improve work skills to keep up
  o 59% believe workers have to work harder to earn a decent living
Pew reports that 77% of American workers expect to work for pay after they retire. The average worker expects to retire at age 57.8, but in fact actually retires at 61. Both these numbers are higher than in the mid 1990s. Pew suggests that public attitudes, expectations and experiences about retirement are in a state of transition, one that should continue to be unsettled as demographic changes unfold and the financial framework of retirement evolves. Other findings:

- 79% of white collar workers expect to work for pay, versus 73% of blue collar workers
- 12% of people who are retired report they are working now for pay
- 27% of retirees report that they have worked for pay after retirement
- more men than women report working, and more college graduates than non-college

Comments:

Continuing education and training are viewed a major driver in global competitiveness, as well as essential at the individual employee level for personal success and development. Technological advances, coupled with innovative approaches to education and delivery of educational services, can transcend national boundaries and open new markets. There is evidence that educational opportunities at many levels in India and China are below that of international averages. The implications of scientific advances are not well understood by the general public, and as the cost of healthcare rises, there could be unmet need for programs that help people become more informed consumers of healthcare services. Large numbers of adults in the world are illiterate, and large populations of children are unschooled. A significant number of people will be needed to take new jobs and replace retiring workers in healthcare and selected business and technology fields. Fiscal pressures on the federal government and state governments may make it difficult for governments to expand funding of education support programs such as grants and subsidized student loans.

Sources:

World Economic Forum, “2008 Annual Meeting”
Pew Research Center, “Once Again, the Future Ain’t What It Used To Be” (5/2/2006)
Pew Research Center, “Public Says American Work Life is Worsening” (9/2006)