2017 ENVIRONMENTAL SCAN

Office of Planning and Institutional Effectiveness
College of DuPage
425 Fawell Blvd.
Glen Ellyn, IL 60137

The mission of College of DuPage is to be a center for excellence in teaching, learning and cultural experiences by providing accessible, affordable and comprehensive education.
# TABLE OF CONTENTS

## HIGHEST IMPACT ENVIRONMENTAL SCAN TRENDS

<table>
<thead>
<tr>
<th>Category</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competition</td>
<td>2</td>
</tr>
<tr>
<td>Demographic</td>
<td>2</td>
</tr>
<tr>
<td>Economic</td>
<td>2</td>
</tr>
<tr>
<td>Education</td>
<td>2</td>
</tr>
<tr>
<td>Labor Force</td>
<td>2</td>
</tr>
<tr>
<td>Politics</td>
<td>3</td>
</tr>
<tr>
<td>Social Values/Lifestyle</td>
<td>3</td>
</tr>
<tr>
<td>Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

## ENVIRONMENTAL SCAN

<table>
<thead>
<tr>
<th>Category</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competition</td>
<td>4</td>
</tr>
<tr>
<td>Demographic</td>
<td>8</td>
</tr>
<tr>
<td>Economic</td>
<td>11</td>
</tr>
<tr>
<td>Education</td>
<td>18</td>
</tr>
<tr>
<td>Labor Force</td>
<td>25</td>
</tr>
<tr>
<td>Politics</td>
<td>28</td>
</tr>
<tr>
<td>Social Values/Lifestyle</td>
<td>36</td>
</tr>
<tr>
<td>Technology</td>
<td>41</td>
</tr>
</tbody>
</table>
ENVIROMENTAL SCAN TRENDS

HIGHEST IMPACT ENVIRONMENTAL SCAN TRENDS
Seventy-four total trends were identified in eight taxonomies (Competition, Demographics, Economic, Education, Labor Force, Politics, Social Values/Lifestyle and Technology). The following 17 were identified during the Implications Workshop as having the highest impact on the communities served by College of DuPage.

COMPETITION
Partnerships with Feeder Schools
As higher education institutions recognize the significant role they play in the quality of our nation’s middle and secondary schools, efforts are increasing to build sustaining and mutually reinforcing partnerships with feeder schools.

Student Satisfaction
Factors which contribute to the satisfaction of those with a college degree include the quality of the experience in relationships and access to faculty, internships and other experiential learning, as well as the overall student experience, including extracurricular activities. Those with less debt and good jobs are most satisfied, and also able to participate sooner in things such as continuing their education or buying a home. This appears to be the case regardless of race, ethnicity, or generation.

DEMOGRAPHIC
Poverty Level in DuPage County
Between 2005 and 2011 the percent of DuPage County resident living under the federal poverty level increased steadily. Then between 2011 and 2013 the poverty level declined slightly. However, in 2014 it again saw another spike.

Ethnic Diversity in the Population of DuPage County
Underrepresented populations in DuPage County has steadily increased since 1990, and is projected to continue increasing through 2020 and beyond.

ECONOMIC
Illinois Budget Deficit
There is a high probability state and local funding of education will decrease in the near future.

Skills Gap
The demand for skilled workers will exceed the development of skilled workers resulting in a skilled worker shortage.

EDUCATION
Underprepared Students Despite Implementation of Common Core
As the number of underprepared students continues to increase, community colleges will continue to play a significant role in serving this population.

Underprepared Students Increasingly Attend Community Colleges
As the number of underprepared students continues to increase, community colleges will continue to play a significant role in serving this population.

LABOR FORCE
Demand for Healthcare Workers
As the population ages, the demand for healthcare workers will continue through 2024.

Shortage of Middle-Skill Workers
Between 2010-2020, 48 percent of jobs will require Middle-Skills. Jobs that require Middle-Skills need more than a high school credential but less than a bachelor’s degree. Examples include electricians, dental hygienists, and paralegals. In Illinois, the Bureau of Labor Statistics is showing a shortage of Middle-Skill workers.

POLITICS
Accountability in Higher Education
Increasing state and federal attention is being focused on accountability in postsecondary education.
Affordability in Higher Education
Tuition costs are out-pacing government funding for postsecondary student aid with the greatest impact on low-income students who may be unable to afford college.

Higher Education Funding in Illinois
The state’s failure to properly manage funds continues to have a negative impact on Higher Education. This failure will ultimately change institutional operating procedures.

SOCIAL VALUES/LIFESTYLE
Digital Technologies Affect Learning and Careers
The use of existing digital technology for engagement and enhancement of learning will continue to expand as well as impact future careers.

Longer Life Expectancy
People in the United States are living longer, retiring later and pursuing multiple careers. Therefore, additional education or training will be required.

TECHNOLOGY
Increased Demand for Technology Skills/Training
Given the rate of sustained rapid technological advancement, there is an ongoing need for increased base-level technology skills, as well as for continued technology training and professional development.

Increased Use of Mobile Devices Leads to New Educational Opportunities and Strategies
The transformative potential of mobile devices and applications will fuel change in the way college courses are created and delivered.
ENVIRONMENTAL SCAN

JANUARY 2016
by Strategic Long Range Plan Advisory Committee and Planning and Institutional Effectiveness

ENVIRONMENTAL SCANNING
Brown and Weiner (1985) define environmental scanning as “a kind of radar to scan the world systematically and signal the new, the unexpected, the major and the minor.” Therefore, the Environmental Scan (E-Scan) is intended to identify current and emerging external trends that impact our community, students and other stakeholders of the College.

By identifying and understanding external trends, the College can develop plans to proactively meet and address changing needs of our community, students and other stakeholders. To be as comprehensive as possible, the College scans eight areas or taxonomies which include:

- Competition
- Demographic
- Economy
- Education
- Labor Force
- Politics
- Social Values/Lifestyle
- Technology

Prior to conducting the E-Scan, members of the Strategic Long Range Plan Advisory Committee (SLRPAC) participated in a half-day training session.

Following the training session, SLRPAC members were divided into taxonomy teams and spent two months doing evidence-based research, conducting interviews of subject matter experts and compiling seventy-four trend statements that were presented to community leaders during the Community Implications Workshop. Each trend statement identifies the probability of change over the next three to five years, as well as the rationale and source of the evidence that supports the trend.

COMPETITION
Trend #1: For-Profit Enrollment
Trend statement:
After years of fast paced growth, for-profit institutions of higher education are seeing a significant slowing or decline in enrollment.

Probability of change for the next 3-5 years: High

Supporting rationale:
Enrollment at for-profit colleges has fallen by 26 percent since the high point, a far greater decrease than the nine percent decline in overall post-secondary enrollment. Corinthian Colleges have gone bankrupt and Education Management Corps public trading shares are worth pennies. Throughout the literature it is clear that many of the for-profit institutions are struggling to stay afloat. Private institutions such as Loyal University and similar for-profit colleges and universities are looking for alternative ways to grow enrollment, including adding Associate Degree and Certificate programs to their offerings. These may represent some areas of concern and further research for community colleges.

Sources:

Trend #2: Investment in Online Education
Trend statement:
The higher education sector will continue to invest in online education. While the trend seems to be at a plateau it continues to be a viable delivery of instruction to the Higher Education industry overall.

Probability of change for the next 3-5 years: High

Support rationale:
Online offerings continue to allow institutions of Higher Education to grow enrollment and tuition revenue. According to the Online Learning Consortium and the 2014 Survey of Online Learning, conducted by the Babson Survey Research Group, the number of higher education courses delivered online has increased by 3.7% over the previous year. However, this is the lowest increase seen since the OLC began collecting enrollment data 13 years ago. Academic leaders continue to see learning outcomes as the same or superior to face to face courses, while faculty are still skeptical (379 Babson Survey Research Group 2016).

Sources:

Trend #3: Online Competitive Advantages
Trend statement:
To be competitive in the online delivery market, colleges must invest in the technology, tools and processes that support such delivery, i.e., innovative LMS products and services, new programs of study and solid pedagogical professional development for instructors.

Probability of change for the next 3-5 years: High

Support rationale:
Institutions that continue to support and develop such programs can successfully differentiate themselves from other schools and from for-profit institutions and other non-academic options. These institutions should continue to have strong enrollment and good retention and completion rates for students in online courses.

Sources:
Interview with Brett Coup, Associate Dean Instructional Design.

Trend #4: Workforce Partnerships
Trend statement:
Business and education realize by collaborating, they are increasing the potential for a skilled and thriving workforce.

Probability of change for the next 3-5 years: High

Support rationale:
This continues to be an important trend. According to the sources discovered, collaboration with workforce partners will continue to be of utmost importance in the Career and Technical Education/Continuing Education programs. Higher Education needs to be more aware that industry trends and needs will continue to grow and that instruction and learning outcomes need to grow as well.
Sources:
Interview with Joanne Ivory, Associate Dean of Continuing Education/Extended Learning and Directed Business Solutions.

Trend #5: Partnerships with Feeder Schools
Trend statement:
As higher education institutions recognize the significant role they play in the quality of our nation’s middle and secondary schools, efforts are increasing to build sustaining and mutually reinforcing partnerships with feeder schools.

Probability of change for the next 3-5 years: High

Support rationale:
The blame game continues to run throughout the educational system and beyond. Employers blame colleges and universities for inadequately preparing students for the workforce; post-secondary schools blame secondary schools for inadequate college prep; secondary schools blame middle and elementary schools for advancing under-prepared students; and elementary schools blame parents for not providing students with fundamental needs, basic learning skills and self-discipline. Federal and state administrators have attempted to address this issue with programs such as Every Student Succeeds Act, Common Core, PARCC test, P-16 legislation and assessment/accountability requirements for schools. Educators at every level are subject to increasing accountability for student achievement and graduation rates and schools will begin to address the need for better communication and collaboration across educational levels.

Sources:

Trend #6: Student Satisfaction
Trend statement:
Factors which contribute to the satisfaction of those with a college degree include the quality of the experience in relationships and access to faculty, internships and other experiential learning, as well as the overall student experience, including extracurricular activities. Those with less debt and good jobs are most satisfied, and also able to participate sooner in things such as continuing their education or buying a home. This appears to be the case regardless of race, ethnicity, or generation.

Probability of change for the next 3-5 years: High

Support rationale:
When it comes to market value, the trend is even more consistent and downward. With the exception of Grand Canyon, many of the companies have seen their value drop, often drastically, as enrollments have fallen and scrutiny has increased.

The new “gainful-employment” rule, which could eliminate federal student aid for degree programs that leave students with too much debt relative to the incomes they can earn with those degrees, is also having a major effect on the sector. Several colleges have recently cited the regulation as a reason for closing and many others are eliminating or altering their pricier programs to comply with it.

Sources:

Trend #7: Federal Regulations and reduced Federal and State funding
Trend statement:
A change in government regulation and federal and state funding has made an impact on higher education.

Probability of change for the next 3-5 years: High
Support rationale:
Many for-profit colleges have been affected by increased regulations, especially around federal tuition. For-profit institutions are facing scrutiny from multiple government regulators regarding “deceptive and predatory tactics to enroll as many students as possible without regard to their potential for success or ability to afford tuition”. Records show that Apollo Education Group (parent company to University of Phoenix), DeVry University, and Corinthian College to be some of the for-profit colleges/universities affected. In some cases, the institution has closed, leaving students without the ability to complete degrees.

Community colleges continue to have issues receiving budgeted state funding and have been forced to decrease programs or reduce the workforce of the college.

Sources:

Trend #8: Alternative Scheduling
Trend statement:
While community colleges have been providing the bridge to a BA or BS degree with 3+1 or 2+2 partnerships, for-profit colleges and universities are starting to provide transfer degrees and alternative scheduling as well.

Probability of change for the next 3-5 years: High

Support rationale:
For-profit schools have recognized the “need to increase access to, and completion rates of, post-secondary education degrees for students.” To do this they are providing education and degrees with more consideration to flexible scheduling, alternative delivery methods, and reduced payment options. Currently many community colleges offer a partnership with a four-year college. A student is able to attend the community college, but complete with a degree from the four-year college. This greatly reduces the tuition cost to the student who graduates with a BA or a BS.

Focusing on students who cannot may not be able to afford college, Loyola University’s Arrupe College’s has started offering a two-year associate’s degree program. Sources site that Pennsylvania State University awarded 1,958 associate degrees in the 2012-13 academic year. In addition, many colleges have focused on providing more hybrid or online education and degrees in order to accommodate student’s schedules and tuition constraints.

Sources:
DEMOGRAPHIC

Trend #1: Population Growth in DuPage County

Trend statement:
Population growth in DuPage County is projected to increase at an average annual rate of one percent or less over the next five years.

Probability of change for the next 3-5 years: High

Support rationale:
From 2010 to 2014 the population change in the five Chicago collar counties (DuPage, Kane, Lake, McHenry, and Will) has been between -0.5 percent for McHenry to 2.3 percent for Kane. During that time frame, DuPage’s population change was 1.7 percent and the state’s population change was 0.4 percent.

From 2015 to 2020, DuPage County’s population is projected grow by approximately 44,000, from 948,165 to 992,383. (Chart 1, below)

Sources:

Trend #2: Aging Population in DuPage County

Trend statement:
From 2015 to 2020, it is projected that DuPage County residents 65 years of age and older will grow at a significantly faster rate than any other age group.

Probability of change for the next 3-5 years: High

Support rationale:
Between 2015 and 2020 those 65 years of age and older in DuPage County are predicted to increase from 14 percent of the County’s population to approximately 16 percent. While at the same time the 0 to 19 age group is projected to drop from 27 percent to 25 percent, and the 20 to 64 age group is projected to drop from 60 percent to 59 percent of the County’s population.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Year</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2015</td>
<td>2020</td>
</tr>
<tr>
<td>0 to 19</td>
<td>243,200</td>
<td>243,791</td>
</tr>
<tr>
<td>20 to 64</td>
<td>572,922</td>
<td>587,130</td>
</tr>
<tr>
<td>65+</td>
<td>132,043</td>
<td>161,462</td>
</tr>
</tbody>
</table>

Sources:
Woods & Poole Economics, Inc. 2015. 2015 County Data Pamphlet for DuPage County, IL.

Trend #3: Household Income in DuPage County

Trend statement:
Between 2010 and 2015 the mean household income in DuPage County increased at a rate of 3.9 percent, however, between 2015 and 2020 it is expected to increase close to seven percent.

Probability of change for the next 3-5 years: Moderate

Support rationale:
Prediction for DuPage County household income remains strong, with those households having a mean income of less than $75,000 declining slightly (three percent), while those in the upper wage brackets (greater than $120,000) increase slightly (two percent).

Based on 2009 dollars, between 2010 and 2015 the mean household income in DuPage County increased by 3.9 percent (from $138,287 to $143,680). Mean household income is projected to increase 7.1 percent from 2015 ($143,680) to 2020 ($153,921).
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 - $45,000</td>
<td>27.8%</td>
<td>29.0%</td>
<td>27.5%</td>
</tr>
<tr>
<td>$45,000 - $75,000</td>
<td>22.4%</td>
<td>21.3%</td>
<td>19.8%</td>
</tr>
<tr>
<td>$75,000 - $125,000</td>
<td>25.7%</td>
<td>25.9%</td>
<td>27.0%</td>
</tr>
<tr>
<td>$125,000 - $200,000</td>
<td>15.6%</td>
<td>14.9%</td>
<td>16.2%</td>
</tr>
<tr>
<td>&gt;$200,000</td>
<td>8.5%</td>
<td>8.9%</td>
<td>9.5%</td>
</tr>
</tbody>
</table>

Sources:

Trend #4: Poverty Level in DuPage County
Trend statement:
Between 2005 and 2011 the percent of DuPage County resident living under the federal poverty level increased steadily. Then between 2011 and 2013 the poverty level declined slightly. However, in 2014 it again saw another spike.

Probability of change for the next 3-5 years: High

Support rationale:
For the past two decades, DuPage County has been experiencing significant and ongoing demographic changes, marked by substantial increases in the number of residents with incomes that place them at or below the federal poverty level. Although significantly lower than the state (IL) or national poverty levels, the 10 year (2005-2015) rate of increase in poverty in DuPage County (2.9 percent) is greater than the rate of increase for either the state (2.3 percent) or country (2.2 percent) for the same period. (Chart 2, below.)

Sources:
*DuPage County Consolidated Plan 2010-2014.*


Trend #5: Child Poverty Rate in DuPage County
Trend statement:
From 1999 to 2012 the number of DuPage County children living in poverty increased significantly.

Probability of change for the next 3-5 years: High

Support rationale:
From 1999 to 2012 all five Chicago collar counties (DuPage, Kane, Lake, McHenry, and Will) have seen a significant increase in child poverty, while Chicago (city) saw a slight decrease. During this same period, the number of DuPage County children living in poverty increased from 9,818 to 23,279, for an increase of 137.1 percent. Likewise, the DuPage County child poverty rate went from four percent in 1999 to 10.5 percent in 2012.

<table>
<thead>
<tr>
<th>Location</th>
<th># of Children in Poverty</th>
<th>15 Year % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1996</td>
<td>2006</td>
</tr>
<tr>
<td>Chicago</td>
<td>211,780</td>
<td>206,659</td>
</tr>
<tr>
<td>DuPage Co.</td>
<td>9,818</td>
<td>13,301</td>
</tr>
<tr>
<td>Kane Co.</td>
<td>10,912</td>
<td>17,042</td>
</tr>
<tr>
<td>Lake Co.</td>
<td>13,484</td>
<td>15,824</td>
</tr>
<tr>
<td>McHenry Co.</td>
<td>3,239</td>
<td>5,761</td>
</tr>
<tr>
<td>Will Co.</td>
<td>8,770</td>
<td>12,606</td>
</tr>
</tbody>
</table>

Sources:

Trend #6: Ethnic Diversity in the Population of DuPage County
Trend statement:
Underrepresented populations in DuPage County has steadily increased since 1990 and is projected to continue increasing through 2020 and beyond.

![Chart 2](chart2.png)

All Ages in Poverty

![Chart 2](chart2.png)
Probability of change for the next 3-5 years: High

Support rationale:
Between 1990 and 2014, the underrepresented population of DuPage County increased by over 165 percent (from 11.6 to 31.6 percent). The largest increase was seen in the Hispanic population (from 4.5 to 14.2 percent), while the white population decreased by almost 20 percent.

With respect to public high schools in Community College District 502, over the past ten years the Hispanic/Latino population increase from 9.3 percent to 17.3 percent, while the white student population decreased from 76.8 percent to 62.1 percent.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>76.8%</td>
<td>62.1%</td>
<td>-14.7%</td>
<td></td>
</tr>
<tr>
<td>African American or Black</td>
<td>4.7%</td>
<td>7.0%</td>
<td>2.3%</td>
<td></td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>9.3%</td>
<td>17.3%</td>
<td>8.0%</td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>8.9%</td>
<td>10.4%</td>
<td>1.5%</td>
<td></td>
</tr>
<tr>
<td>Two or More/Other</td>
<td>0.3%</td>
<td>3.2%</td>
<td>2.9%</td>
<td></td>
</tr>
<tr>
<td>*Low Income</td>
<td>7.8%</td>
<td>21.8%</td>
<td>14.0%</td>
<td></td>
</tr>
</tbody>
</table>

*Low-income students are from families receiving public aid, living in institutions for neglected or delinquent children, being supported in foster homes with public funds, or eligible to receive free or reduced-price lunches.

Sources:
Woods & Poole Economics, Inc., 2015. 2015 County Data Pamphlet for DuPage County, IL.


Trend #7: Ethnic Diversity of Public High Schools in Community College District 502

Trend statement:
Over the past ten years the number of underrepresented students in public high schools located in Community College District 502 has increased steadily, with the Hispanic/Latino population showing the largest increase.

Probability of change for the next 3-5 years: High

Support rationale:
Public high schools in Community College District 502 includes 15 districts (HSD 86; HSD 87; HSD 88; HSD 94; HSD 99; HSD 100; HSD 108; CUSD 200; CUSD 201; CUSD 202; CUSD 203; CUSD 204; HSD 204; SD 205; and SD 210) with 25 individual high schools (Hinsdale Central and South; Glenbard East, North, South and West; Addison Trail and Willowbrook; West Chicago; Downers Grove North and South; Fenton; Lake Park; Wheaton North and Warrenville; Westmont; Lisle; Naperville Central and North; Metea, Neuqua Valley and Waubonsie; Lyons Township; York; and Lemont).

Trend #8: Education Level in DuPage County

Trend statement:
Between 2005 and 2014 the percent of DuPage County residents 25 years and older without a high school diploma (or equivalency) decreased slightly, while the percent of individuals with a college degree increased moderately.

Probability of change for the next 3-5 years: Moderate

Support rationale:
Over the past 10 years the percentage of DuPage County residents (25 years and older) with a college degree increased by from 49.8 percent to 55.4 percent, a change of 5.6 percent. Those possessing a graduate or professional degree increased from 15.9 percent to 19.4 percent, outpacing the rate of change for those possessing either an associate’s or bachelor’s degree.
Educational Level | 2005 | 2010 | 2014  
--- | --- | --- | --- 
Less than high school diploma | 8.8% | 8.2% | 7.6%  
High school diploma or equivalent | 21.3% | 19.8% | 18.8%  
Some college | 20.1% | 19.4% | 18.2%  
Associate’s degree | 7.0% | 6.7% | 7.4%  
Bachelor’s degree | 26.9% | 28.7% | 28.6%  
Graduate or Professional degree | 15.9% | 17.2% | 19.4%  

**Sources:**  

**ECONOMIC**

**Trend #1: DuPage Economy**

**Trend statement:**  
The DuPage County economy, mirroring the national economy, is characterized overall by weak economic indicators. However, recent changes indicate the local economy is trending upward.

**Probability of change for the next 3-5 years:** High

**Support rationale:**  
The DuPage County economic recession has mirrored the national recession. While economic indicators have been considered weak, recent changes indicate an upward trend is emerging. The annual average unemployment rate in DuPage County for 2014 fell to 5.6 percent, lowest of the Collar Counties and below the National and State average rates of 6.2% and 7.1%, respectively. (Charts 3 and 4, below.)

Sales tax receipts in DuPage County increased approximately $20 million from $344 million in 2013 to $364 million in 2014, a 5.8% increase. The office vacancy rate fell to 16.8 percent in March 2015, from 17 percent in March 2014; it is higher than Cook (12.8 percent), but lower than McHenry (20.2 percent), and roughly the same as Kane (16.7 percent) and Lake (16.5 percent).

The Midwest Economy Index (MEI) is a monthly index designed to measure growth in non-farm business activity in the Seventh Federal Reserve District. It serves as a regional counterpart to the Chicago Fed National Activity Index. The index is constructed to have an average value of zero and a standard deviation of one. Since Midwest economic activity tends toward trend growth rate over time, a positive index reading corresponds to growth in Midwest economic activity above trend, while a negative reading corresponds to growth below trend. The Midwest Economy Index (MEI) was -0.15 in September, 2015. This is down from +0.51 in September, 2014.

Note: The previous version of this scan included the Chicago Fed Midwest Manufacturing Index (CFMMI). Monthly release of this index was suspended in December 2013, and is undergoing a process of data and methodology revision. (Chart 5, following page.)

**Sources:**  
www.ides.illinois.gov/LMI/Pages/Local_Area_Unemployment_Statistics.aspx.


**Trend #2: Personal Wealth**

**Trend statement:**
The recession reduced the personal wealth of many Americans, but several indicators of wealth (housing value, investments, etc.) have begun to rise in recent years.

**Probability of change for the next 3-5 years:** High

**Support rationale:**
Between 2010−13, median net worth fell 2 percent and the mean increased slightly for most groups. However, in 2015, the value of investments, particularly in the stock market, was trending upwards. In 2015, U.S. Treasury yield were beginning to trend slightly up. (Chart 6, below right.)

Growth in consumer spending increased in 2014. In 2015, the average price of a home in the Chicago metropolitan area increased by 1.86 percent; this is compared to 5.09 percent nationally. (Charts 7, below right, Charts 8 and 9, opposite page.)

The consumer price index fell .04 percent for Chicago regional, compared with being essentially unchanged nationally over the previous year.

**Sources:**


**Trend #3: Illinois Budget Deficit**

**Trend statement:**
There is a high probability state and local funding of education will decrease in the near future.

**Probability of change for the next 3-5 years:** High

**Support rationale:**
The State of Illinois continues to experience a record budget deficit which will require either large reductions in state spending or large increases in taxes or both to close a more than $100 billion pension gap. Illinois had just 39.3
percent of assets needed to meet promises to retirees in 2014, the worst ratio among states, according to Bloomberg.

Governor Bruce Rauner remains locked in a budget “fight” with State democrats. The State has been operating without a complete budget since July 1, 2015. In October 2015 an announcement was made by the Comptroller’s office that the state’s monthly pension payment would be pushed back due to a cash flow problem.

Shortly after that announcement Fitch Ratings lowered Illinois’ bond rating from A- to BBB+, citing the “continued deterioration of the state’s financial flexibility.” This downgrade impacts the state’s general obligation bonds. Later in October 2015 Moody’s Investors Services downgraded the state’s bond rating from A3 to Baa1. Illinois is the worst-rated state with a Moody’s ranking three steps above junk, and an A-, one level higher, from Standard & Poor’s.

Meanwhile, in September 2015, the Comptroller’s office announced that the state’s backlog of unpaid bills could hit $8.5 billion in December – not counting an additional $4 billion in spending for state universities, lottery winners, and other purposes being indefinitely deferred. This would be up from $3.96 billion in July 2015.

Sources:

Trend #4: Performance Based Funding
Trend statement:
Performance based funding systems have been implemented in Illinois higher education, however, the impact in total funding to community colleges is low.

Probability of change for the next 3-5 years: High
Support rationale:
A Performance Funding Steering Committee was established by the Illinois Board of Higher Education (IBHE) to assist with linking the goals of the Illinois Public Agenda for College and Career Success to the state’s higher education budgeting process. Performance funding is an important component of the state’s plan to meet the Complete College America (CCA) goal that by 2025, 60 percent of Illinois adults will have a college degree or credential. To that end, the Committee is to assist the IBHE in devising a system for allocating state resources to public institutions of higher education based upon performance in achieving state goals related to student success and certification and degree completion.
Historically, many colleges have received state funding based on how many full-time equivalent students are enrolled at the beginning of the semester. This model provides incentives for colleges to enroll students and thus provide access to postsecondary education, but this model does not necessarily provide incentives for institutions to help students successfully complete degree programs. Many states are reconsidering the enrollment-based funding model and instead are aligning funding models with state goals and priorities.

Thirty-two states—Arizona, Arkansas, Colorado, Florida, Illinois, Indiana, Kansas, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, New Mexico, New York, Nevada, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, Wisconsin, and Wyoming—have a funding formula or policy in place to allocate a portion of funding based on performance indicators such as course completion, time to degree, transfer rates, the number of degrees awarded, or the number of low-income and minority graduates.

Currently, in Illinois, less than one percent of base funding to 2-year institutions is determined based on performance based measures ($360,000 in total for fiscal year 2015) (Chart 10, below).

Sources:

Trend #5: Competition from the Global Economy

Trend statement:
The global economy is growing more integrated, with the fastest growing economies in China, India and former Soviet Union states.

Probability of change for the next 3-5 years: High

Support rationale:
The United States goes up in the rankings for a second year in a row and regains the 3rd position on the back of improvements in a number of areas, including some aspects of the institutional framework (up from 35th to 30th), and more positive perceptions regarding business sophistication (from 6th to 4th) and innovation (from 7th to 5th). U.S. companies are highly sophisticated and innovative, and they are supported by an excellent university system that collaborates admirably with the business sector in R&D. On the other hand, some weaknesses in particular areas remain to be addressed. The business community continues to be rather critical, with trust in politicians still somewhat weak (48th), concerns about favoritism of government officials (47th), and a general perception that the government spends its resources relatively wastefully (73rd). The macroeconomic environment remains the country’s greatest area of weakness (113th), although the fiscal deficit continues to narrow and public debt is slightly lower for the first time since the crisis.

Sources:

**Trend #6: Healthcare Insurance**

**Trend statement:**
After several years of a relatively stable uninsured rate between 2008 and 2013, as measured by the American Community Survey (ACS), the percentage of the population who were uninsured dropped between 2013 and 2014.

**Probability of change for the next 3-5 years:** High

**Support rationale:**
In 2014 the percentage of people without health insurance decreased to 11.7% from 14.5% in 2013. The number of uninsured people decreased to 36.7 million, down from 45.2 million in 2013. 2014 was the first year that people began enrolling in health coverage on the Affordable Care Act’s (ACA) newly created marketplaces.

The percentage and number of people with health insurance increased in 2014, to 89.6% and 283.2 million, up from 86.7% and 271.6 million in 2013.

In 2015, the Congressional Budget Office (CBO) and Joint Committee on Taxation (JCT) estimate 36 million non-elderly people will be uninsured—about 19 million fewer than would have been uninsured in the absence of the ACA. From 2016 through 2025, the annual number of uninsured is expected to decrease to between 29 million and 31 million—that is, between 24 million and 27 million fewer than would have been uninsured in the law’s absence. The 31 million people projected to be uninsured in 2025 represent roughly one out of every nine residents under age 65.

**Sources:**


**Trend #7: Widening Income Gap**

**Trend statement:**
The income gap in the United States is continuing to widen.

**Probability of change for the next 3-5 years:** High

**Support rationale:**
The years from the end of World War II into the 1970s were ones of substantial economic growth and broadly shared prosperity. The income gap between those high up the income ladder and those on the middle and lower rungs — while substantial — did not change much during this period. Then, beginning in the 1970s, income disparities began to widen, with income growing much faster at the top of the ladder than in the middle or bottom (Chart 11, below).

A family’s income is the flow of money coming in over the course of a year. Its wealth (sometimes referred to as “net worth”) is the total stock of assets it has as a result of inheritance and saving, less any liabilities. The Federal Reserve’s Survey of Consumer Finances (SCF) data show that

![Chart 11](https://example.com/chart11.png)
the top three percent of the income distribution received roughly a third of all income in 2013, while the top three percent of the wealth distribution held 54 percent of all wealth.

While the SCF is invaluable, it has its limitations, especially for detecting trends in wealth concentration at the very top. Recently, Emmanuel Saez and Gabriel Zucman have used tax-return information on income derived from wealth to infer the underlying distribution of wealth over time. As with income, these data show a long historical decline in the concentration of wealth from the late 1920s into the late 1970s. Concentration at the top has increased markedly since then, driven by a rising share of wealth at the very top. (Chart 12 below.)

Sources:

**Trend #8: Loss of Manufacturing Jobs**

**Trend statement:** Manufacturing output is indicating above-average growth in both Illinois and the Midwest region.

**Probability of change for the next 3-5 years:** High

**Support rationale:**
The Chicago Fed Midwest Economy Index is a weighted average of 129 state and regional indicators encompassing the entirety of the five states in the Seventh Federal Reserve District (Illinois, Indiana, Iowa, Michigan, and Wisconsin). The index measures growth in non-farm business activity based on indicators of four broad sectors of the Midwest economy: 1) manufacturing, 2) construction and mining, 3) services, and 4) consumer spending. From January 2012 through September 2015, the index fluctuated from .52 to -.06 with 85% positive reports indicating above-average growth for the region. However, in Illinois, the index fluctuated only from .13 to -.05 with 60% positive reports indication above-average growth. However, although manufacturing is trending upward, the number of employees in manufacturing is trending downward.

Note: A zero value for the MEI indicates that the Midwest economy is expanding at its historical trend rate of growth; positive values indicate above-average growth; and negative values indicate below-average growth. (Charts 13, below; 14 and 15, following page.)

Note: The previous version of this scan included the Chicago Fed Midwest Manufacturing Index

![Chart 12](Image)

![Chart 13](Image)
Monthly release of this index was suspended in December 2013, and is undergoing a process of data and methodology revision.

Sources:

Trend #9: Skills Gap
The demand for skilled workers will exceed the development of skilled workers resulting in a skilled worker shortage.

Probability of change for the next 3-5 years: Low
Support rationale:
Three million Illinois adults have only a high school degree or less, but 67% of jobs in Illinois will require some type of post-secondary training by 2020. The 2015 Talent Shortage survey indicated that 32% of US employers indicate difficulty filling jobs. Lack of applicants, technical competencies, and industry-specific qualifications are the top three reasons employers are having difficulty filling jobs. (Charts 16 and 17, below.)

Sources:
EDUCATION

Trend #1: National Spotlight on Community Colleges

Trend statement:
There is a new national spotlight on community colleges, including the creation of the Aspen Prize to recognize excellence.

Probability of change for the next 3-5 years: Unknown

Support rationale:
In 2010, President Obama announced the Aspen Prize for Community College Excellence. According to the Institute’s website, this biannual $1 million prize “is the nation’s signature recognition of high achievement and performance among America’s community colleges and recognizes institutions for exceptional student outcomes in four areas: student learning, certificate and degree completion, employment and earnings, and high levels of access and success for minority and low-income students” (The Aspen Institute, 2016). This is a prize worth striving for. In 2015, Kennedy-King, City Colleges of Chicago, was a “Rising Star” finalist.

Sources:

Trend #2: Underprepared Students Despite Implementation of Common Core Standards

Trend statement:
As the number of underprepared students increase, community colleges will continue to play a significant role in serving this population.

Probability of change for the next 3-5 years: Unknown

Support rationale:
Recent test scores and investigative reports indicate that an increasing number of high school graduates are not ready for college. Community colleges are on the front lines when it comes to helping students develop the skills and knowledge necessary to succeed in college, and must provide remedial/developmental programs, tutoring and other support services. The Illinois State Board of Education indicates that “48.7 percent of graduates who enrolled in the community college system needed remedial instruction to prepare them for entry-level college coursework,” “with about 41 percent needing additional preparation in [math]” (Associated Press, 2015). State-wide data from the fall 2015 Partnership for Assessment of Readiness for College and Careers (PARCC) exams, which test areas based on Common Core standards, indicate that among high school students in Illinois, only 17% “met” or “exceeded expectations” in math, while only 31% did so in English (Rado, 2015). Although students in specific DuPage County schools scored better, COD must embrace its role as a leader in developmental programs and college-preparation. There is a continued need for innovative, affordable and supportive programs for underprepared students.

Sources:

Trend #3: The Most Common Community College Major is the Liberal Arts

Trend statement:
Nationally, community college students most commonly major in Liberal Arts with the intention to transfer.

Probability of change for the next 3-5 years: Unknown
Support rationale:
Given the rising costs of college tuition, many Liberal Arts students are saving money by completing required courses at a community college before transferring to a four-year college. According to Professor Peter Cappelli, director of The Wharton School’s Center for Human Resources, the most common major for community college students is Liberal Arts. He attributes this to a desire on the student’s part to save money while taking foundational courses that will transfer. Therefore, transfer and articulation agreements continue to be important for students. At COD, the majority of our graduates in 2015 earned a liberal arts degree. We had 1,953 liberal arts graduates out of 2,892 degree completers (i.e. A.A., A.S., A.G.S., and A.F.A.) (Thompson 2016).

Sources:

Trend #4: President Obama’s Proposal for Free Tuition at Community Colleges
Trend statement:
President Obama proposed making two years of community college free.

Probability of change for the next 3-5 years: Unknown

Support rationale:
In January 2015, President Obama announced the America’s College Promise proposal, which would “make two years of community college free for responsible students, letting students earn the first half of a bachelor’s degree and earn skills needed in the workforce for no cost (The White House, 2015). According to the proposal, community college could be “as free and universal as high school.” Although the details may change, the proposal calls for students maintain a 2.5 GPA and attend at least half time. Colleges need to have academic programs that are fully transferable and vocational programs for careers that are in demand. States would pay 1/4 of the cost, with federal funding covering the rest. It’s unclear how this would be implemented, and there have been calls for more public debate (Wyner & Stimpfel, 2015).

Sources:

Trend #5: Diversion of Funding from Instruction to Administrative Salaries
Trend statement:
Increases in administrative positions and salaries have diverted state and local funding from instructional costs, such as faculty.

Probability of change for the next 3-5 years: Unknown

Support rationale:
Colleges have been increasing the number of administrators and their salaries at a rate that far out-paces that of full-time faculty. This is an inefficient use of funds that increasingly raises the ire of the public. According to a report published by the Goldwater Institute, “Between 1993 and 2007, the number of full-time administrators per 100 students at America’s leading universities grew by 39 percent, while the number of employees engaged in teaching, research or service only grew by 18 percent. Inflation-adjusted spending on administration per student increased by 61 percent during the same period, while instructional spending per student rose 39 percent” (Greene,
Kisida, & Mills, 2010). The Association for American University Professors responded, “If we hope to successfully engage, educate, and graduate a larger number of students, it is time to reverse the decades-long trend and systematically reinvest in academic positions, particularly full-time, tenure-track positions. This includes the conversion of faculty and positions that are contingent to tenure-track lines” (Bunsis and Witt, 2010).

Sources:

Trend #6: Too Much Technology in K-12 May Lead to Worse Test Scores

Trend statement:
Technology is often touted as a panacea for learning shortfalls, but some new studies indicate that too much technology in K-12 can lead to worse test scores and poor performance in writing and math.

Probability of change for the next 3-5 years: Unknown

Support rationale:
Two new studies raise concerns that too much technology may actually cause student learning to lag behind students in traditional learning environments. The National Study of Online Charter Schools found that “[s]tudents in the nation’s virtual K-12 charter schools--who take all of their classes via computer from home--learn significantly less on average than students at traditional public schools. The online charter students lost an average of about 72 days of learning in reading and 180 days of learning in math during the course of a 180-day school year. In other words, when it comes to math, it’s as if the students did not attend school at all” (Layton, 2015). An international study of test results conducted by the Organization for Economic Co-operation and Development has found that countries that have invested heavily in making technology very accessible in the classroom “have seen ‘no noticeable improvement’ in Pisa test results for reading mathematics and science” (Coughlin, 2015). On the other hand, countries and cities “with the lowest use of the internet in school--South Korea, Shanghai, Hong Kong and Japan--are among the top performers in international tests” (Coughlin, 2015). The OECD’s education director Andreas Schleicher points out that East Asian educational systems use technology in the classroom moderately. He suggests that “classroom technology can be a distraction and result in pupils cutting and pasting prefabricated homework answers from the internet” (Coughlin, 2015). In addition, a recent study comparing the quality of the note-taking of college students who used a laptop versus those that wrote notes by hand has indicated that typing notes can lead to a mindless verbatim transcription and shallow understanding of the material. Whereas, students who wrote their notes tended to paraphrase information in their own words and show a deeper understanding of material (Mueller & Oppenheimer 2014). Recent neurological studies are raising concerns regarding the negative effects of teaching keyboarding instead of hand writing on the developing minds of preschool and primary school students (Klemm, 2014).

Sources:
Layton, Lyndsey. (2015, October 27). Stanford study shows that online charter school students


Trend #7: MOOC's

Trend statement:
So far, Massive Online Open Courses (MOOC's) have not succeeded in significantly changing the landscape of higher education. On the other hand, they have no disappeared and continue to be come of highly quality.

Probability of change for the next 3-5 years: Medium

Support rational:
Massive open online courses (MOOC's) are a recent addition to the range of online learning options and their effects appear to be contradictory. On one hand, MOOC's have been run by a variety of public and elite universities in increasing number and quality. On the other hand, although they were initially introduced with great fanfare (Waldrop 2013), they have yet to have a significant effect on higher education and no organization has created a profit model for them. MOOC's should be monitored closely, because it is possible that one of the first institutions effected by them will be community college, specifically their career and continuing education arms. “(0)ne can hypothesize that MOOC's will become polarized into two main groups: MOOC's whose certificates-or, better still, degrees-are given value in the jobs market; and others which contribute to the personal betterment of the ‘student’ or which serve as refresher courses without an immediate simple objective” (Pomerol, 2015).

Sources:

Trend #8: Students Attending Multiple Colleges

Trend statement:
The number of students attending more than one college at a time is on the rise.

Probability of change for the next 3-5 years: High

Support rationale:
“Swirling students appear to be following unpredictable enrollment patterns. These students may be at a greater risk for not completing a degree, but they don’t have to be” (AACRAO, 2013).

“Among students who enrolled in postsecondary education for the first time in 1995-96, 40 percent had attended more than one institution, while among 2001 college graduates, nearly 60 percent had done so” (Peter, & Cataldi, 2005).

“Students’ transfer patterns reflect the important role of community colleges. Among students who transfer from four-year public institutions, more than half (51.9 percent) transfer “in reverse,” to two-year public institutions. And among students who transfer from two-year public colleges, more than a third (37.6 percent) move laterally, to other two-year public colleges. That is nearly as many as transfer from two-year to four-year public institutions; 41.2 percent” (Gonzalez, 2012).

Sources:
American Association of College Records and Admission Officers. (2013). The ‘swirling’ transfer student: How to work with the unpredictable. AACRAO online.
Trend #9: Underprepared Students

Trend statement:
As the number of underprepared students continues to increase, community colleges will continue to play a significant role in serving this population.

Probability of change for the next 3-5 years: High

Support rationale:
Enrollment patterns at area community colleges support this trend—including COD. The enrollment in developmental courses is far and away the largest enrollment segment at the College of DuPage (College of DuPage, 2010). Nationally this trend is also observed—and is a topic of considerable concern for global positioning (Collins, 2006).

As specific additional examples, from (American College Testing, 2004). “Our nation is in a college-readiness crisis. Too few of our students are prepared to enter the workforce or post secondary education without additional training or remediation when they graduate from high school. And far too many have to take remedial courses as part of their post-secondary education.”

“For example one study, sponsored by the Illinois Community College Board (ICCB), at the College of DuPage (COD) in Glen Ellyn, Illinois—a middle-class suburb of Chicago, reported that 50 percent of the students new to the College in fall 2005 placed into developmental courses and, moreover, that this developmental education population has grown steadily over time” (Illinois Community College Board, 2006).

Other community colleges and four year schools throughout the country report similar, if not more dramatic results (Krone, 2006).

Moreover, the four year public institutions are not embracing this population (Duranczyk and Higbee, 2006, p.1) and the community colleges may not be resourced for the job according to several sources (Schuetz, and Barr, 2008). Unfortunately for the students, this is a significant barrier to student success. Students are likely to drop out if they fail developmental courses and the failure rates are far too high (Lipka, 2010).

At the state level there will be changes in standards at the high school level of education. Community colleges will serve those students and so will proprietary institutions. Therefore, there will be a need to balance the equity considerations of community colleges with the completion agenda and developmental education needs to be paired with General Education.

Sources:
Trend #10: Increase in Number of Nontraditional Aged Students

Trend statement:
National research suggests enrollments of people 25 years and older in higher education will increase through 2017.

Probability of change for the next 3-5 years: High

Support rationale:
“The history of adult learning in the United States is nearly as old as the nation itself, yet the adult learner only recently has moved to the forefront of research agendas in higher education. As scholars and policymakers seek to make sense of changing demographics, emerging labor force demands and shifting patterns of educational attainment, research on adult learners will become increasingly vital.” (The Lumina Foundation, 2009).

“With the number of high-school-aged Americans beginning to ebb, President Obama’s goal of dramatically increasing the number of U.S. citizens with postsecondary credentials is going to be impossible to achieve without significantly more adults returning to and graduating from college” (Lederman, D. 2010).

Community colleges will push for more adult students in order to meet completion goals; however, in order to do so, community colleges will need to rethink policies and procedures which currently have a negative direct or indirect impact on adult students.

Sources:
Madison, WI: Recruitment and Retention in Higher Education Online Seminar.
The Lumina Foundation. 2009. What We Know About Adult Learners, p. 1-13. Indianapolis, IN.
Ulmer, M. 2008. Academic Perspectives: Economics, Cost and Flexibility Rank Among Top Considerations for Adult Learners. Hoboken, NJ. EducationDynamics, LLC.
to include other important outcomes of a college education (Moltz, 2009).

While many state systems include persistence (retention), graduation and transfer to a four-year college as indicators of student success, these measures alone are not sufficient in assessing community college performance as they serve students who have many different academic intentions beyond graduation or transfer (Institute for Higher Education Policy, 2006).

Rightly or wrongly, colleges that can demonstrate accountability through adequate retention, graduation and transfer rates as well as on other important student outcomes may have a competitive advantage over those who cannot.

Sources:

Trend #12: Gap Between High School Curriculum and College Expectations

Trend statement:
Evidence as to how prepared high school students are for college is mixed. Two trends are evident in this area: 1) There is evidence of an increasing gap between high school and college expectations for learning and curriculum. 2) Many students defined as under-prepared have attended community colleges and there is no evidence to suggest this will not continue.

Probability of change for the next 3-5 years: High

Support rationale:
Between 2000 and 2003, high school graduation rates in Illinois increased, but in recent years a decline has been seen. There is also evidence of different curricular expectations and assessment of learning in high school and colleges:

- Research shows little to no agreement or consensus between high schools and colleges in terms of what it means to be prepared for college, topics that should be covered and what students should learn.
- Research shows that the highest predictors of success in community college (as measured by transfer or attainment of an occupational degree) is the attainment of college-level math credit, avoidance of no-penalty withdrawals and continuous enrollment. Only 11 percent of community college students completed a math course beyond Algebra II in high school, compared to 44 percent of students who enroll in four-year colleges and universities. In Illinois, as in many states, there is no requirement for enrollment past Algebra II in high school, meaning that many students who lack preparation in math will probably continue enrollment in community colleges.
- Increasingly high grades resulting from grade inflation are sending students and parents the false impression that high grades are sufficient in preparing them for college.

According to ACT, only 25 percent of the 2012 high school graduates met all college readiness benchmarks.

Sources:

Trend #13: Initiative Fatigue
Trend statement:
The amount of time, energy, resources and personnel has remained relatively fixed but institutions of higher education have been called upon to do more, leading to a decline in organizational effectiveness.
Probability of change for the next 3-5 years: High
Support rationale:
Expectations for students and school systems continue to rise while many states face the toughest financial challenges of recent history. These dual realities mean that policy makers and practitioners must do more with the resources they have during these difficult budget times.

The Lumina Foundation for Education, one of the best-known higher-education philanthropies in the country, spends nearly $50-million annually on projects to improve college completion. In 2010, the Foundation announced that it is worried about “initiative fatigue,” and is shifting its focus away from giving money to new projects to develop policy ideas to enacting changes needed to improve college graduation rates.

Sources:
Brian Durham, ICCB Senior Director for Academic Affairs and Career and Technical Education.
U.S. Department of Education.
The Chronicle of Higher Education.

LABOR FORCE
Trend #1: Job Gain in DuPage County
Trend statement:
Since 2012, DuPage County gained 36,000 jobs. Job growth is expected to continue to increase at the rate of 13,000 jobs per year through 2018. DuPage County has the lowest countywide unemployment rate in Northeastern Illinois. Unemployment peaked at 8.9% in 2010 and trended downward to 5.6% in 2014.
Probability of change for the next 3-5 years: High
Support rationale:
Woods & Poole uses well-designed models for estimates and projections.
Sources:

Trend #2: Fastest Growing Industries in DuPage County
Trend statement:
The industries with the most growth in employment as compared to 2011 employment are Offices of Physical, Occupational and Speech Therapists and Audiologists; Other Services related to Advertising; Other Grocery and Related Products Merchant Wholesalers; and Services for the Elderly and Persons with Disabilities.
Probability of change for the next 3-5 years: High
Support rationale:
According to EMSI reports, some of the fastest growing occupations by percentage to 2011 employment include Offices of Physical, Occupational and Speech Therapists and Audiologists; Other Services related to Advertising; Other Grocery and Related Products Merchant Wholesalers; and Services for the Elderly and Persons with Disabilities. Recent reports from the Bureau of Labor Statistics also confirm that occupations with the most job growth will be health related and/or related to the
care of the elderly and persons with disabilities. Nationwide, occupations such as personal care aides, registered nurses and nursing assistants are projected to be among some of the fastest growing occupations through 2024. The largest industries in DuPage County are Elementary/Secondary Schools; Corporate, Subsidiary, and Regional Managing Offices; Full Service Restaurants; Temporary Help Services; and Local Government Excluding Education and Hospitals as recorded by 2011 total employment. (Chart 18, below.)

Sources:

Trend #3: Demand for healthcare workers
Trend statement:
Demand for healthcare workers through 2024 will continue as the population ages.

Probability of change for the next 3-5 years: Low

Support rationale:
Overall employment is projected to increase by 6.5% from 2014-2024 adding about 9.8 million jobs with the fastest growth expected in occupations related to healthcare support occupations and healthcare practitioners. Nearly one in four new jobs will be in these two occupational areas. Changes in demographics as the population ages will drive demand for healthcare practitioners and technical occupations and healthcare support operations. (Chart 19, below.)

Sources:

Trend #4: Projected growth for transportation, warehousing and construction jobs but not manufacturing
Trend statement:
Employment in manufacturing is projected to continue to fall as it has for the last 10 years nationwide according to the Bureau of Labor Statistics. The construction industry is projected to show an increase in employment nationwide but is not expected to reach prerecession levels by 2024. Both transportation and warehousing positions are projected to show demand locally in DuPage County.

Probability of change for the next 3-5 years: Moderate

Support rationale:
Employment in construction should continue to rise, but will be challenged by the lack of demand for new housing as residents leave the State.
Since 2010, employment in transportation and warehousing jobs has increased by eight percent in DuPage County. By 2025, Choose DuPage is projecting employment to be 34,546 in these fields due to our location and proximity to a multimodal transportation network. Manufacturing jobs are expected to decline nationwide, but DuPage County may not be as affected as shown by the increase in warehousing and transportation positions.

Sources:

Trend #5 Growth in the state’s energy efficiency industry
Trend statement:
Demand for employment in Architecture, Engineering, Farming, Construction, Production and Transportation could increase in the State of Illinois due to growth in the state’s energy efficiency industry.

Probability of change for the next 3-5 years: High

Support rationale:
If demand for alternative energy continues (wind, solar, geothermal, and biofuels), the jobs needed would be in the professional services sector and related occupations. Positions in the following occupational categories of Architecture, Engineering, Farming, Construction, Production and Transportation would likely be affected. However, the price of oil will greatly affect the expansion of these areas and subsequent employment in the alternative energies.

Sources:

Trend #6: Shortage of Middle-Skill Workers
Trend statement:
Between 2010-2020, 48 percent of jobs will require Middle-Skills. Jobs that require Middle-Skills need more than a high school credential but less than a bachelor’s degree. Examples include electricians, dental hygienists, and paralegals. In Illinois, the Bureau of Labor Statistics is showing a shortage of Middle-Skill workers.

Probability of change for the next 3-5 years: High

Support rationale:
Several well-respected data collection sources agree with this projection.

Sources:

Trend #7: Postsecondary Degree Impact on Hiring and Wages
Trend statement:
Research is continuing to show that postsecondary education has a positive effect on lifetime earnings. According to the Bureau of Labor Statistics, occupations that usually require some
postsecondary education for entry are projected to grow the fastest during the decade 2014-2024. Research is projecting that wind turbine service technicians, occupational therapy assistants, and physical therapy assistants to be among some of the fastest. None of these positions require a bachelor’s degree.

**Probability of change for the next 3-5 years:** High

**Support rationale:**
Several well-respected data collection sources agree with this projection. (Chart 20, below.)

**Sources:**


**Trend #8 Labor Force Continues to Age**

**Trend statement:**
The median age is projected to be 42.4 in 2024. This is up from 41.9 in 2014. At the same time, the labor force participation rate is expected to decrease from 62.9 percent in 2014 to 60.9 percent by 2024. In DuPage County, workers 55 years and older are the second largest group of employees as of 2013. The largest group is 30-54 years of age.

**Probability of change for the next 3-5 years:** High

**Support rationale:**
Projections based upon solid census data.

**Sources:**


**POLITICS**

**Trend #1: Public Pensions Systems in Crisis**

**Trend statement:**
Increasing pressure to pay for required public pension systems has contributed toward the financial crisis in Illinois.

**Probability of change for the next 3-5 years:** High

**Support rationale:**
According to the Center for Tax and Budget Accountability, “the state’s failure to make its required employer contributions to the five pension systems can be traced to one simple cause:” a state fiscal system “that is so poorly designed it, for decades, failed to generate enough revenue.
growth to both maintain service levels from one year to the next, and cover the state’s actuarially required employer contribution to its five pension systems” (Wheeler, 2010). Analysts project the state retirement systems will need $131 billion to cover benefits, the other $85 billion represents the unfunded liability, an obligation that the State must meet, but for which no funding source exists because there is only $46 billion in the bank.

The Illinois Supreme Court rejected the state’s solution for its worst-in-the-U.S. $111 billion pension shortfall, handing organized labor a victory while deepening a crisis with national implications. In addition to the $111 billion in unfunded pension liabilities, it is also $56 billion in debt for health benefits for the retired. It already devotes one in four of its tax dollars to pension according to the Civic federation, a budget watchdog group (Harris & Campbell, 2015; The bottomless pit, 2015).

Almost 80 percent of the workers covered by the state plans are not eligible for Social Security, so the state does not pay a federal tax on their salaries. “The state’s pension plans must be reformed and made less costly.” In the alternative, the business community is pushing for setting up a second tier of pension benefits for new employees that would reduce future pension costs to the state and track more closely private sector cutbacks on employee benefits (Illinois Pension System, 2014). Unless there is a pension reform system implemented, the pension shortfall burden will continually increase.

The stakes for teachers unions are high, as a 2011 Wisconsin law illustrates. Wisconsin Act 10, known as the Wisconsin Budget Repair Bill, eliminated agency fees there and reshaped the collective bargaining process. Since the law’s passage, membership in the Wisconsin Education Association Council and the American Federation of Teachers-Wisconsin has fallen by more than 50 percent, according to a 2015 report from the National Education Association (NEA). In 2014, NEA membership in agency fee states grew by 5,300. In states without agency fees, it fell by more than 47,000 (Antonucci, 2016).

Gov. Rauner is now working with John Cullerton, the Democratic Senate President, to prepare a new version the Illinois Pension Reform Bill that was declared unconstitutional by the Supreme Court last year (Ahern, 2016). The new proposal would allow public workers a choice of reduced benefits, giving them the option of keeping their pension benefits without a guarantee of certain health care or keeping their health care benefits with a lower retirement plan. (Charts 21, below and 22 to 26, following page.)

Sources:

Chart 21 (Growth of Illinois’ unfunded pension liability, 2010) Illinois Issues, February 2010
**Trend #2: Accountability in Higher Education**

**Trend statement:**
Increasing state and federal attention is being focused on accountability in postsecondary education.

**Probability of change for the next 3-5 years:** High

**Support rationale:**
As one of the Department of Education initiatives, they have developed a Postsecondary Institutional Ratings System (PIRS). This system is designed to provide information about performances of various institutions based on specific metrics. This information will be incorporated into the reauthorization of the Higher Education Act, and the President will propose allocating financial aid based on the college ratings by 2018 (Harmon & Cielinski, 2014; Leveille, 2006; Ebersole, 2015; Stratford, 2014). If approved, not only this act will greatly impact funding distribution for colleges throughout the United States, it will further provide a direct correlation to student enrollment, retention and completion.

**Sources:**

---

**Chart 22** (Growth of Illinois’ unfunded pension liability, 2010)
*Illinois Issues, February 2010*

---

**Chart 23** (Kloster & Griffith, 2015)

---

**Chart 24**

---

**Chart 25**

---

**Chart 26**

---


Trend #3: Affordability in Higher Education

Trend statement:
Tuition costs are out-pacing government funding for postsecondary student aid with the greatest impact on low-income students who may be unable to afford college.

Probability of change for the next 3-5 years: High

Support rationale:
According to Arthur Haupman, State funding remains one of the largest sources of revenues in American Higher education (Heller, 2001). The challenge in some states (particularly in Illinois) is that fiscal mismanagement has practically destroyed the funding structure and the state is now struggling to pay its share.

In light of the fact that (on average) the graduation rate at four- year institutions is approximately 60%, some states are considering the option of implementing performance benchmarks as a means of providing funding to higher education institutions. As student success rates improve, so would state funding (Conner & Rabovsky, 2011). This option would allow for the potential for institutions to be more equally funded.

During the periods of 2007 through 2013, there has been very significant (negative) changes in the Illinois spending indicators in higher education. These continued changes will have long-term and far reaching implications on the educational systems in Illinois and beyond.

In 2011, City Colleges of Chicago began an ambitious plan of reforming their District. This plan focused on increased student funding via scholarships, grants and industry partnerships, and developing sector based instructional education (Star Program, 2015). Once implemented, it leveled the “playing field” for all CCC students, regardless of location and/or socio-economic background.

As part of its report on Higher Education in 2006, the Spellings Commission wrote: American higher education has become what, in the business world, would be called a mature enterprise: increasingly risk averse, at times self-satisfied, and unduly expensive. It is an enterprise that has yet to address the fundamental issues of how academic programs and institutions must be transformed to serve the changing educational needs of a knowledge economy (McPherson & Schapiro, 2007). Increasingly the government is looking to implement measures of assessment that can be directly tied to funding. Higher Education must embrace metrics that validate their success and support their continued existence.

Sources:
Trend #4: Higher Education Funding

Trend statement:
State funding for colleges and universities are continually declining.

Probability of change for the next 3-5 years: High

Support rationale:
In 2012, the National Income and Product Accounts conducted a survey of state funding and determined that in 2011, funding was down by 40.2% compared with fiscal 1980. Extrapolating that trend, the national average state investment in higher education will reach zero in fiscal 2059. In other words, states are already 40 percent of the way to zero. At this rate of decline, it will take another 48 years to finish off the remaining state support for higher education (Mortenson, 2012). This downward spiral is occurring in almost every state within the United States.

A recession beginning in 2008 dramatically reduced state revenue and ended the growth in state and local support achieved between 2004 and 2008. In 2014, for the second straight year, overall state and local funding for higher education increased, reaching $86.3 billion, up 5.7 percent from 2013, but still below 2008-2011 levels. Initial estimates from the Grapevine survey of FY 2015 appropriations for higher education show continued growth overall of 5.2 percent in nominal terms. These data all point to continuing economic recovery and restoration of state funding for higher education on average nationally. In addition to state and local revenues, public institutions collected net tuition revenue of $64.3 billion in 2014, for a total of about $150.7 billion available to support higher education. For the first time since the recession, the share of overall funding for public and private higher education from tuition decreased slightly to 42.7 percent. Net tuition revenue as a share of public higher education revenue was 47.1 percent (Pernsteiner & King, 2014). Interestingly, even though states continue to struggle with educational funding, higher education is the third largest category in State budgets. June, 2015, Pew published a detailed report that outlined federal and state funding and spending for Higher Education.

Sources:


Trend #5: Higher Education Funding in Illinois

Trend statement:
The state’s failure to properly manage funds has resulted in a negative impact on Higher Education and will ultimately change institutional operating procedures.

Probability of change for the next 3-5 years: High

Support rationale:
The State of Illinois has no operating budget for FY ’16 and as a direct result, numerous colleges and universities throughout the state are experiencing financial hardships.

State colleges and universities in Illinois have thus far seen 1,000 fewer students return for the second semester due to the budget impasse’s impact on the (MAP) Monetary Award Program. Higher education appropriations have also been frozen during the budget standoff and as a result, at least one local university (Chicago State) could soon go broke. Thirty percent of their (Chicago State) operating budget comes from the state, if funding is not
received, then by March they will be unable to pay their $5 million payroll (Journal, 2016). Less MAP funding translates into fewer students’ enrollment.

In addition to Chicago State, Eastern Illinois University, Western Illinois, and Northern Illinois University are facing challenges. Last year S&P lowered EIU, WIU and Chicago’s Northeastern Illinois University ratings to A-minus, with a negative outlook (Strahler, 2015). Community colleges are not immune to the pressures of the non-existent state budget. Heartland, Rock Valley, Blackhawk, Richland, Logan, John Wood, Kaskaskia and Sandburg are just some of the two-year colleges that are currently experiencing financial hardships due to the lack of state funding. (Chart 27, below.)

Sources:
education-enrollment.


Trend #6: Funding Sources in Higher Education
Trend statement:
Higher Education must identify alternative funding opportunities to support institutional sustainability.

Probability of change for the next 3-5 years: High

Support rationale:
Continual budget cuts will negatively impact operating budgets and reserve funds of colleges and universities. As a means of minimizing this reduction in funding, institutions should develop stronger relationships with corporate America who in turn, can provide financial support not only to programs that support their specific needs but also to the institution at large (Maise, 2012). (Chart 28, below left, and Chart 29 below.)

Financial pressures have also resulted in institutions looking to offer corporate sponsorship, as an example, in 2010, UCLA embarked on a program to sell campus-wide sponsorships in multiple areas, such as the school of arts museum,
professional schools, student activities, festivals and other events and programs. Sponsorships of this type have the potential to provide institutions with multi-million dollars of annual revenue (UCLA Breaks New Ground In Higher Education Sponsorship, 2010). (Chart 30, below.)

Sources:

Trend #7: Leadership and Management in Higher Education
Trend statement:
The path to presidency typically begins in the classroom as a tenured professor.

Probability of change for the next 3-5 years: Medium

Support rationale:
Colleges and universities have hundreds and even thousands of employees; operating budgets range from millions to billions of dollars annually. Yet, within higher education, rarely are potential presidents required to complete any type of leadership training prior to assuming their role. Additionally, succession planning (in higher education) is practically non-existent. Institutional presidents are often chosen based on their academic experience and less attention is focused on their business acumen.

In light of current budget crisis in states throughout the United States, it is incumbent upon institutions to select candidates that have excellent academic credentials as well as exceptional fiduciary knowledge and skills.

The most common career path to the presidency has remained unchanged since 1986. The Chief Academic Officer continues to be the most frequently cited immediate prior position for college presidents in 2011; more than one in three current presidents were CAOs prior to their current positions. Another constant is that most presidents have spent their entire careers in higher education. Interestingly, however, while more than half of college presidents have never worked outside higher education, the share of presidents whose immediate prior position was outside higher education has increased since 2006, from 13 percent to 20 percent. Much of this growth occurred in the private sector, both nonprofit and for-profit. Not only have the majority of college presidents spent their professional lives in higher education, an overwhelming majority have served as full-time faculty members at some point in their career. Despite the changing nature of the path to the presidency, the share of presidents who have been full-time faculty members remained virtually unchanged between 2011 (70 percent) and 1986 (75 percent) (Cook, 2012).

Sources:
Trend #8: Student Activism in Higher Education

Trend Statement:
Student activism is a catalyst for change.

Probability of change for the next 3-5 years:
Moderate

Support rational:
Colleges and universities are listening and responding to the needs of students. The advancement of modes of communication (social media and the internet) has provided them with a platform to instantly engage with colleges and universities throughout the United States-and beyond, as they seek to voice their concerns about academic, political and matters of social justice (Dalton, 2015).

Student activism in today’s society includes a much broader range of causes, which includes, international solidarity, human rights, affirmative action, gender equality, diversity in higher education, programs of study and environmental concerns (Alvarado, 1999); (Arthur, 2011).

As a true measure of student activism, one needs to look no farther than the “Black Lives Matter” and the “Path to Citizenship” movements across the United States. Previously, such movements were led and organized by community activists that provide a platform for community causes, however, the face of the movement has now changed. While well-established organizers are still present, college and university students are now leading these efforts. Further, student activism has expanded to include middle and high school students.

Sources:

Trend #9: Sustainability Measures and Implementation

Trend Statement:
Community colleges must become actively engaged in identifying and implementing measures that will support their efforts of academic relevance and sustainability.

Probability of change for the next 3-5 years:
High

Support rational:
Community colleges can use the option of offering baccalaureate degrees to support sustainability in the areas of student enrollment, retention, and completion. This measure would also assist in financial solvency.

According to the American Association of Community Colleges (AACC), the nation’s 1,132 community colleges enroll nearly half of all undergraduates in the U.S.—more than 13 million students. These community colleges graduate up to 25% of all first-time, full-time students, compared with 59% at four-year institutions, according to the National Center for Education Statistics (DiSalvio, 2015). While this option is not ideally suited for all community colleges, there are some community colleges that are in a very good position to provide students with coursework necessary to obtain a four-year degree. This is not a new or uncommon phenomenon. In the state of California alone, there are fifteen community colleges that
offer bachelor’s degrees. The Community College Baccalaureate Association (CCBA) provides data, articles, and updates on legislation that are specific to this area.

Source:

Trend #10: Illinois Workforce and Economic Concerns in Higher Education
Trend Statement:
Community colleges must actively engage in programs that meet the needs of current and future workforce.

Probability of change for the next 3-5 years: High
Support rational:
A primary concern in industry is the inability to identify qualified applicants; they lack academic, technical, and critical thinking skills. Community colleges can help to bridge these particular gaps by providing short-term certificates, associate and bachelor’s degrees in high-target areas. These areas include: information technology; business; health care; manufacturing; transportation; distribution and logistics.

Workforce trends and international competition suggest that Illinois will need larger numbers of better-educated workers over the coming decades (Perna & Finney, 2011).

The economic importance of higher education will continue to grow. In a 2013 report, researchers from the Georgetown University Center on Education and the Workforce projected that by 2020, nearly two-thirds of all jobs will require at least some college education, up from 59 percent in 2007. The Georgetown Center further projects that, based on current trends, without significant new investment in capacity, the nation’s education system will not keep pace with the rising demand for educated workers. By 2020, the country’s system of higher education will produce five million fewer college graduates than the labor market will demand (Mitchell & Leachman, 2015).

Sources:

SocIAl VALUEs And LIfeStylEs
Trend #1: People Without Health Insurance
Trend statement:
The number of people with health insurance in the United States and in DuPage County may increase due to healthcare reform as portions of the legislation are implemented.

Probability of change for the next 3-5 years: High
Support rationale:
• Nationally, in 2008 about 50 million people were uninsured. This number decreased to 48.6 million uninsured in 2011.
• In 2013, the healthcare bill states there will be an increase in access to affordable care. Increasing Medicaid payments for primary care doctors and providing additional funding for the Children’s Health Insurance Program.
• In 2014, the healthcare bill states there will be an improvement in care quality and lowering costs with the establishment of the Health Insurance Marketplace—increasing access to Medicaid and promoting individual responsibility.
• In 2015, the healthcare bill states there will be an improvement in quality by lowering costs of care and paying physician based on value, not volume.
• Since the Affordable Care Act (ACA) became law, about 17.6 million uninsured people have gained coverage—the largest reduction in the uninsured in decades. This is a historic start, but there is more work to do.

Sources:

Trend #2: DuPage County Poverty Issues
Trend statement:
The number of people living below the poverty line in DuPage County is increasing.

Probability of change for the next 3-5 years: High

Support rationale:
• The DuPage County poverty growth rate has increased by 63.3 percent between 1980 and 2006.
• Homelessness is an increasingly reality for a significant number of residents in DuPage County. A one night homeless count of sheltered and unsheltered persons was conducted on January 28, 2015. The total number of sheltered homeless persons increased 2.7% from 625 to 642.
• In fiscal year 2014, 3215 persons in 1236 households received financial assistance for rent, security deposits, moving costs, or mortgage in order to prevent them becoming homeless.
• In fiscal year 2014, 1074 persons in 384 households received financial utility assistance in order to prevent them becoming homeless.
• In fiscal year 2014, 2656 persons in 1052 households received case management, legal services, and/or financial counseling to prevent them becoming homeless.
• In 2013, DuPage County had 64,737 people with incomes below the Federal Poverty Level.
• In 2013, the number of children in poverty is 9.8% of the population.

Sources:

Trend #3: Diversity and Religious Affiliation
Trend statement:
Affiliation with organized religions remains steady for older adults, but is decreasing within the millennial generation; These dynamics appear to be influenced by the increase of diversity in the County.

Probability of change for the next 3-5 years: Moderate

Support rationale:
• The Pew Research study shows an increasing number of individuals have shifted from identifying themselves as being associated with a religious organization; but not participating, to “no religious affiliation.” From 2007-2014 there was a 6.7% increase in religious unaffiliated in the U.S. population.
• Studies indicate that changing attitudes about lifestyles and sexual orientation are linked to the same generational forces helping to reshape religious identity and practices in the U.S. with Millennials expressing far more acceptance of these factors than older adults.
- Ethnic, religious, and sexual diversity of the student population, faculty, and staff is perceived to create a more welcoming, respectful, supportive, and successful environment on campus.

Sources:

Trend #4: Pollution in DuPage County
Trend statement:
DuPage County’s concerns with pollution may decrease as sustainability practices and green initiatives become more accepted.

Probability of change for the next 3-5 years:
Moderate

Support rationale:
- In 2014 DuPage County received the Governor’s Sustainability Award, for the second time, which recognizes public and private organizations for significant achievements in protecting the environment through sustainable practices.
- The County Health Rankings and Roadmaps; released in 2015 states that DuPage ranks 3rd out of 102 Illinois counties in physical environmental quality.
- DuPage County is an active participant in the Sierra Clubs “Cool Counties” program which focuses on decreasing air pollutants and greenhouse gases to promote better air quality. The goal is to reduce greenhouse gas emissions in the county by 10 percent in 2020 and 20 percent in 2030 by inviting businesses, environmental leaders and other community members to be a party of the effort which will be led by the Conservation Foundation.
- Illinois community colleges have been key in developing and maintaining resiliency in their communities by developing sustainable strategies, utilizing green products, creating green curricula, researching best practices, and incorporating sustainability principals into their educational priorities.

Sources:
“Certificates and Degrees, Green Careers”, Illinois Green Economy Network (IGEN), September 2015.
“DuPage County starts initiative to drop greenhouse gas emissions”, Hank Beckman, Naperville Sun, April 14, 2015.
“Celebrate Campus Sustainability Month”, Hilary Valentine, Parkland College News and Events, October 08, 2015.
“Why systems thinking is the next step in sustainability”, Maureen Kline, Inc.com, October 23, 2014.


Trend #5: Usage of Social Media
Trend statement:
Usage of social media platforms will continue to expand over the next 3-5 years.

Probability of change for the next 3-5 years: High

Support rationale:
• Traditional college-aged students continue to rely on Facebook as their main social media outlet, with YouTube, Snapchat, LinkedIn, and podcasts growing in popularity while Twitter decreases.
• Mobile technology continues to improve, including streamlined apps and greater data capacity, thus reinforcing this continued means of social interaction.
• More attention is being paid to improving the current popular social media platforms, rather than creating new ones.
• Videos and photos are regarded as the most popular uses of social media; Facebook and YouTube plan to introduce spherical video, also known as “360 video.”
• Social commerce, making purchases from a social media post, is gaining momentum.
• College of DuPage enrollment in online classes has remained steady, increasing slightly between Fall 2014 and 2015.

Sources:
College of DuPage, Tenth Day Semester Statistics, Spring 2014 through Fall 2015.
College of DuPage, Local Student Survey – 2015 to 2016 Fall/2015 to 2016 Spring.

Trend #6: Digital Technologies Affect Learning and Careers
Trend statement:
The use of existing digital technology for engagement and enhancement of learning will continue to expand as well as impact future careers.

Probability of change for the next 3-5 years: High

Support rationale:
• Improving student’s digital literacy through technology based curriculum will facilitate their ability to seek and find information in formal (classroom) and informal (employment or home) learning environments.
• Student’s educational needs should be met by the use of technology to reach diverse learners such as those living in rural areas, the disabled or impaired, homeless, migrant, or have language barriers.
• Students need to gain technological skills and critical thinking abilities in order to expand general employment opportunities.
• Students are increasingly tech-savvy and demand relevant and engaging modes of instructional delivery as well as access to up-to-date occupational equipment.

Sources:
“How Digital Learning is Reshaping Education”, Sean Cavanagh, Education Week, July 7, 2015.
“Coming to an office near you”, The Economist; Technology and Jobs, January 18th, 2014.

Trend #7: Work Patterns Are Changing
Trend statement: Employees are requiring more flexibility with work schedules and locations (home, office, or offsite) to establish work-life balance.

Probability of change for the next 3-5 years: High

Support rationale:
• The U.S. Department of Labor (Wage and Hour Division—WHD) announced a proposal rule that would require employers to pay overtime to employees earning as little as $23,660 per year, as many as five million people who are required to work more than 40 hours per week without additional compensation.
• There has been a rise in informal employment, undeclared and temporary work arrangements, as well as involuntary part-time work.
• Those who spend less than 20% of their time working remotely are the most engaged. These employees likely enjoy an ideal balance of both worlds- the opportunities for collaboration and camaraderie with coworkers at the office and a relative sense of freedom that comes from working remotely.
• Those who spend more than half of their time working remotely have similar engagement to employees who do not work remotely.
• Rapid changes in communication technologies and their increasing use in the workplace have modified employees’ accessibility and has led to greater permeability between the boundaries of work and non-work life.
• 70% of happy workers report having some workplace flexibility in the forms of scheduling (daily and break times) and working from home.

Sources:

Trend #8: Longer Life Expectancy
Trend statement: People in the United States are living longer, retiring later and pursuing multiple careers. Therefore, additional education or training will be required.

Probability of change for the next 3-5 years: Moderate

Support rationale:
• When it comes to the hardest places to live in the United States, DuPage County residents struggle less with health and wealth than most, ranking 69 out of 3,135 total counties, according to the New York Times data map.
• 72% of individuals over the age of 50 say their ideal retirement will include working – often in new, more flexible and fulfilling ways.
• The average retirement age is around 63 years, but by 2050, the average retirement age is estimated at 67-68, due in part to increase longevity, an aging workforce and receding government benefits.
• In 2012, 62% of the 45-60 population experienced at least a 20% decline in the value of their financial assets, compared with only 41% in 2010. This occurred despite strong increases in stock prices between 2010 and 2012. Both in 2010 and 2012, households that experienced a major decline in their financial assets were much more likely to plan on delaying retirement.
Present evidence suggests that people are not only living longer than they did previously, but with less disability and fewer functional limitations.

Sources:

Trend #9: Volunteerism
Trend statement:
Volunteerism is on the rise among the Millennial generation.

Probability of change for the next 3-5 years: High

Support rationale:
• Most Millennials volunteer between 1 and 10 hours per year and are more likely to volunteer if they can leverage their skills or expertise. About 25 percent said they were able to use their skills to benefit the cause.
• Millennials are interested in and passionate about a cause but tangible incentives like name recognition, prizes and more time off, can encourage participation. Some 43 percent said they would be more likely to give if competition was involved.
• Today’s young Americans are more serious about giving back than their parents were. Those under age 30 now are more likely to say citizens have a “very important obligation” to volunteer, an Associated Press-GfK poll finds.
• Millennials are volunteering in record numbers. 63% of survey respondents volunteered for a nonprofit in 2011, and 90% expected to volunteer as much or more in 2012 than in 2011. An astonishing 75% gave a financial gift in 2011, and 71% had raised money on behalf of nonprofits.

Sources:

TECHNOLOGY
Trend #1: Redesigning Learning Spaces
Trend Statement:
As new technology-driven models for teaching and learning emerge, new types of physical spaces for teaching and learning will be required.

Probability of change for the next 3-5 years: High

Support rationale:
Smart rooms, active learning classrooms, collaboration spaces, maker spaces and spaces that facilitate cross-disciplinary problem solving are emerging within higher education.

Educational institutions are encouraging and facilitating new forms of teaching and learning by rearranging and redesigning the physical spaces within which these activities occur. From simple reorganization of desk patterns to more advanced technology enhanced smart rooms, web based collaboration spaces, and maker spaces, emerging technologies are shifting the physical space requirements within higher education institutions.

As higher education continues to move away from traditional lecture based programming to more hands on scenarios, university classrooms must shift to accommodate project based and cross-disciplinary learning. This requires a
rethinking of the design of educational spaces, from reconfiguring traditional classroom to more advanced new spaces to accommodate emerging technologies (Johnson, et al., 2015).

These trends are fueled by the emergence of the Internet of Things (IoT), bring your own device (BYOD), and cloud based technologies where everything and everyone are connected at all times. Spaces that facilitate and encourage connectivity and communication are being developed for educational purposes. This trend is also driven by a technology savvy, do it yourself (DIY) culture. The emergence of accessible, and relatively affordable 3D printing has spurred development of maker spaces, fab labs, and tinker spaces that encourage design thinking and project based learning.

The Maker movement has already led to the opening of workshops in libraries, community centers, and other public venues. As this trend moves into higher education, colleges are using these spaces to address a multidisciplinary approach to teaching and learning. Higher Education Institutions are linking design thinking, lean startup models, and entrepreneurship activities into maker spaces that allow students to test, prototype, and launch creative startups (Carlson, 2015).

Furthermore, the accessibility of rapid prototyping and 3D printing technologies is changing the way products are designed and manufactured. This is having a profound impact on project-based learning throughout many academic disciplines. Universities are creating spaces dedicated to nurture creativity and stimulate intellectual inquiry around these new and emerging pedagogies (Johnson, et al., 2014).

The University of Illinois at Urbana-Champaign just announced that it is constructing an entire building dedicated to these types of design thinking activities. A new design center will bring together students from different disciplines and allow them to collaborate, create, and prototype new ideas and inventions. The building will give students access to materials, mentors, courses, programs, workshops and other resources for testing ideas (Wurth, 2015).

Sources:

Wurth, Julie (2015) UI’s new Campus Design Center to provide ‘one-stop shop’ for students to create, The News-Gazette, Sunday, December 27, 2015.

Trend #2: Higher education IT moves toward the cloud
Trend Statement:
With the expansion of cloud-based technology, colleges and universities outsource IT infrastructure and services at an increasing rate. This change is driven by financial efficiency as well as a search for increased ease of use and flexibility for students and faculty.

Probability of change for the next 3-5 years: High
Support Rationale:
Moving to the “cloud”— shorthand for utilizing off-site commercial server hosting facilities and services— can save institutions considerable amounts of money and provide a higher level of service and increased flexibility. In higher education, this change requires a cultural shift in how IT professionals see their positions in the institution, and focus on tasks that contribute more directly to the institutional mission (Bedrossian, et al., 2014).

Private sector companies use cloud services at a much higher rate than educational institutions,
with the decision to move infrastructure and services off-site driven by financial realities.

- Dow Jones & Company “stands to realize a $100 million dollar savings by converting 75% of on-premises infrastructure to the cloud over three years.” The company will consolidate 40 physical data centers into six, and move the rest of their data to Amazon Web Services (Bedrossian, et al., 2014).

- At Facebook, the Director of Infrastructure Strategy and Analytics has said that on-premises infrastructure is operationally viable “only when public cloud expenditures exceed $300,000 per month” (Bedrossian, et al., 2014).

- Lionsgate Vice President of IT reports that the company will save 50% of their infrastructure costs by using the public cloud rather than a traditional hosting facility (Bedrossian, et al., 2014).

In higher education, institutions are increasingly outsourcing the hosting of their learning management system. The 2014 Annual Report from the Instructional Technology Council confirms this trend. The survey found that in 2014, only 25% of respondents own and maintain their own servers. This is down from 30% in 2013 and down from 50% in 2008 (Mullins, 2014).

In fact, some LMS vendors require that institutions adopt their hosting solutions. Canvas, the popular LMS, is only offered through Amazon Web Services and is not available to be hosted locally (Instructure, 2016).

Student email is another function now most-often hosted outside the institution. Columbia University noted that 30% of their student email was being forwarded to outside vendors. They report adopting a strategy of “following their users” and migrated to a suite of email and online tools provided by Google (Bedrossian, et al., 2014).

Central Piedmont Community College in North Carolina also moved their student email to the cloud. Ken Engle, the Director of Web Development, reports:

“This project has been one of the most successful and popular efforts undertaken at the College. When the service went live, helpdesk support calls for email virtually disappeared. The student response to the project has been overwhelmingly positive and spawned requests for additional services and tools provided by Google” (Engle).

Kevin Roberts, the Chief Planning and Information Officer at Abilene Christian University, reports a $120,000 per year savings with their move from self-hosted email to Google. “People’s fears around moving email to the cloud are like the fears of old world sailors around traveling to the edge of the world” (Greer, 2011).

Sources:

**Trend #3: Online Learning Drives Change Across the Institution**

**Trend Statement:**
As online learning matures, early consumption-model courses are being replaced with a variety of new, innovative course formats. Blended classes, flipped classrooms and other new course configurations take advantage of the technology infrastructure available now to most institutions and are becoming drivers of academic and institutional change.

**Probability of change for the next 3-5 years:** High
Support Rationale:
As of 2015, questions about the effectiveness of online and blended learning have largely been answered (Johnson, et al., 2015). The general acceptance of online learning has encouraged the smart use of technology to flow back to all course formats. New delivery methods and new course configurations are able to take advantage of modern pedagogical strategies and currently available technology infrastructure (Johnson, et al., 2014).

With brick and mortar now proven not to be a requirement, innovation in online learning is also calling into question our assumptions about traditional semester schedules, the efficacy of traditional course content and perhaps even the primacy of traditional colleges and universities compared to new, emerging options.

By 2014, 350 institutions were offering or experimenting with competency-based programs of study and prior-learning assessment, where student success and completion is measured by the knowledge and skills they can demonstrate, rather than relying on any set time period of study. The US Department of Education now grants federal financial aid eligibility to these programs (Fain, 2014).

Within individual courses, students are increasingly being required to create original content – video or audio recordings, websites, blogs, and similar projects. Courses in departments that traditionally would have no hands-on component are now incorporating this type of work as a significant part of the curriculum (Horizon, 2014). Many institutions have created “maker spaces” to provide campus locations for students to complete this kind of work (Johnson, et al., 2014).

“Teaching methods and models of delivery will certainly shift to fit our increasingly digital world. The “sage on the stage” at a university will no longer be a common mode of delivery. In the classroom—whether physical or virtual—we will see more attention given to group projects, conversations and applied learning, with lecture content going the way of textbooks as something experienced in preparing for class” (Koller, 2015).

High quality free or low-cost online learning opportunities are now available outside of traditional higher education institutions. Coursera, Udacity and Udemy all offer free or relatively inexpensive courses to anyone, anywhere in the world. Coursera courses are designed and delivered by faculty from some of the most prestigious universities in the world. Udacity offers “nanodegrees” in a few different Computer Science and technology fields, and as of 2016 guarantees a technology job for their students upon graduation, or it will refund half their tuition (Udacity, 2016).

These nanodegrees may be a harbinger of more career-focused online learning. Future students will increasingly be able to find out the level of math, science and other subjects they need for their chosen career and complete that work online (Gates, 2015).

Sources:
Trend #4: Increased Demand for Technology Skills/Training
Trend Statement:
Given the rate of sustained rapid technological advancement, there is an ongoing need for increased base-level technology skills, as well as for continued technology training and professional development.

Probability of change for the next 3-5 years: High

Support rationale:
Instructors and students alike need to stay current with technology trends for future success. Households need a growing base level of technology access and support. Concerns continue to arise about the growth of knowledge obsolescence as technological change outpaces people’s ability to stay current with emerging technologies. With the proliferation of open educational resources, and increases in online, hybrid, and blended learning, faculty training, support, and engagement in new pedagogical methodologies are critical issues. While digital divide gaps have closed significantly over the past 15 years, gaps still remain in educational preparation and technology savvy amongst both faculty and students alike (SCUP, 2015).

Assisting faculty with successful integration of technology and optimizing the use of technology in teaching and learning are enduring themes in the top IT issues for higher education (Dahlstrom, 2015).

Recent horizon reports discuss the importance of creating a culture that embraces innovation. Faculty ‘buy-in’ to view new methodologies as viable alternatives to traditional face to face learning is critical. Institutions need to reward and value teaching, and to encourage faculty to develop and explore ways to integrate emerging technology into the curriculum. Faculty training often does not acknowledge the needs for increased digital fluency, and the lack of rewards for teaching (especially at research focused institutions) are seen as impeding the progress of innovation and implementation for new and effective digital pedagogies (Johnson, et al., 2014, 2015).

Ren Witaker discusses the need to find ways to ease the pedagogical transition for inexperienced, curious, or even reluctant faculty, as well as the need to give faculty better opportunities to understand, explore, experience and critique these new methodologies (Whitaker, 2015). Greer and Mott discuss the inevitability of growing knowledge obsolescence and an increasing demand for instructors and students alike to stay current with technology trends. Also explored is the growing technological competencies required for career success. Students will need to have expanded technology skills for success. Instructors and students will need continued training and re-training (Greer and Mott, 2010).

Sources:
Freich, Lisa. (January 29, 2013) Phone interview.
Halal, William E. (February 1, 2013) Phone interview.
Trend #5: Learning Analytics and data-driven decision making  
**Trend Statement:**  
As data related to teaching and learning becomes increasingly extensive and accessible, and as visualization and analytic methods for this data are invented, there is an increasing trend toward using this “Big Data” for evidence-based decision making in higher education.

**Probability of change for the next 3-5 years:** High

**Support Rationale:**  
Learning Analytics, the use of data to answer questions about teaching and learning, continues to mature as an area of inquiry. As more and more institutions invest in and deploy data warehouses, and as the amount of actual coursework taking place through a learning management system continues to increase, the ability to connect student behavior to outcomes is greater than ever before (McKay, 2015a).

With increasing frequency, institutions are using this data to create a comprehensive picture of each student, and use that picture for various reasons—to build better course experiences, empower students to be active learners, address at-risk students, and assess factors affecting completion and student success. (Johnson, et al., 2015, 2014) “It takes a lot of mystery out of why students succeed and why students fail. It gives you more information, and when you can put that information into the hands of faculty who are really concerned about students and completion rates and retention, the more you’re able to create better learning and teaching environments.”—Robert W. Wagner, executive vice provost and dean at Utah State (Young, 2016).

However, Tim McKay from the University of Michigan believes there is an “ethical imperative” to collect and analyze as much information as possible. “If there’s bad news about our performance lurking in our data, I think we’re obliged to find out and to respond” (McKay, 2015b).

There is federal support for data initiatives that is not specific to higher education. In March 2012 the Obama administration launched the Big Data Research and Development Initiative with the aim of “improving the ability to extract knowledge and insights from large and complex collections of digital data” (Obama, 2012).

Along with this increased access to information come increased ethical and privacy concerns.

(Johnson, et. al., 2015) Judgements of individuals might be colored by access to data about groups to which they belong, or data could be generated from a system with embedded errors or biases and provide an incorrect view of reality. Finally, the risk exists to expose unflattering information about an institution, department or individual (McKay, 2015b).

Sources  

Trend #6: Increased use of Mobile Devices leads to new educational opportunities and strategies.  
**Trend Statement:**  
The transformative potential of mobile devices and applications will fuel change in the way college courses are created and delivered.

**Probability of change for the next 3-5 years:** High
Support rationale:
A 2014 survey of four-year college students reports that 95% of students owned a smartphone, 57% owned a tablet and 29% owned an e-book reader. Institutions are responding to this level of usage by updating their IT infrastructure to accommodate BYOD policies (Johnson, et. al., 2014). The Adobe report “The State of Mobile Benchmark” states that tablets drive an increasing percentage of web traffic, and according to EdTech magazine, a strong indicator that colleges should be preparing tablet-friendly experiences for their websites and course materials (Daly, 2013).

“BYOD is often less about the devices and more about the personalized content that users have loaded onto them. Devices are often already populated with productivity apps helping them to better organize their notes, syllabi and schedules. Students can use iPads during class to annotate instructor’s slides, record lectures, take notes, and create mind maps of complex topics. Higher education institutions are increasingly updating their IT infrastructures to accommodate BYOD policies (Johnson, et al., 2014).

The increasing ubiquity of mobile devices can drive new educational models. “On-demand videos in Adult Learning and educational games for K-12 are just two examples of new ways to educate...using the mobile platforms (Bali, 2013). “It’s likely that interest in MOOCs and other freely available educational opportunities has grown faster because of the saturation of mobile technology (Daly, 2013).

One area of slower-than-expected adoption is with e-textbooks. Questions about accessibility remain, with institutions considering whether requiring e-books means that they should also provide the device.

Sources:

Trend #7: The Internet of Things is growing.
Trend Statement:
Mobility and the Internet of Things (IoT) are intertwined and mutually reinforcing. As devices and sensors become cheaper and more ubiquitous, the amount of data generated from them will increase drastically. As long as an institution has the proper tools for analyzing this data, the IoT has the potential to reveal new, revolutionary pedagogical methods better suited for today’s students.

Probability of change for the next 3-5 years: Medium

Support rationale:
As people’s devices become more powerful, integrated with multiple sensors and the ability to connect to the internet, an increasing amount of data is created from this device-network interaction. This data is called The Internet of Things (IoT), and as the devices that create this data become more ubiquitous the rate at which it is created will increase drastically. Mike Abbiatti, executive director of the Western Cooperative for Educational Technologies, writes in an article that “The Internet of Things is NOT simply a story about connecting millions of devices to the global Internet. IoT is about what our states and institutions actually DO with Internet connectivity… What do we do when our students arrive on our campuses in Internet-enabled vehicles, wearing Internet-enabled clothing, carrying eight to ten Internet-enabled devices, and with clear expectations that our systems can support them?” (2015).

In an article written for Center for Digital Education, Travis Seekins (AVP of Student Technology at Hardin-Simmons University) wrote concerning the growing ubiquity of these devices.
“A typical five-year plan for infrastructure growth may only last three years. It is impossible to future-proof the network with a “wired-only” budget. Plan for expanded bandwidth and wireless access points by working collaboratively across the business, IT, housing and student services departments to meet student expectations, now and into the future” (Seekins, 2015).

In 2011, the amount of smartphone shipments outnumbered those of personal computers for the first time, and that trend has remained since (Canalys, 2012). Smartphones will become the “personal gateway to the IoT”, serving as a remote control or hub for the connected home, connected car, or the fitness devices people are increasingly starting to wear (Jankowski, et al., 2014). With increasing amounts of people using multiple devices, the shift toward a larger IoT is accelerated. Consumer expectations will be driven by this expanding market and the design structures that integrate IoT will become less a novelty and more a necessity.

For instruction, IoT in higher education empowers blended learning models that integrate personalized materials and assessment technologies that deliver instant feedback. In this landscape, students will have the ability to monitor their own environment and collect real-time data for further study (Cisco, 2013). In addition, the IoT could open up new ways to conduct research and learning. The IoT has the capacity to connect the entire campus infrastructure, from the largest building and all its classrooms to the smallest piece of laboratory equipment. With so many objects linked, the IoT could facilitate new pathways for research that explore the kinds of knowledge available when so many things are connected (Educause, 2014).

In short, the IoT has great potential. The increasingly connected network of devices and data streams could coordinate campus spaces, integrating information from sensors embedded in objects which could include everything from library books to robots. The components that collect and relay data are being used in makerspaces, laboratories, and projects undertaken by students and faculty (Educause, 2014). While few institutions have started utilizing the IoT, the possibilities are as boundless as the imaginations of the students themselves.

Sources:

Trend #8: Ubiquity of Social Media Usage
Trend Statement:
Social media is changing the way people interact, present ideas and information, and judge the quality of content and contributions of others.

Probability of change for the next 3-5 years: High

Support rationale:
Social media tools such as Facebook, LinkedIn, Twitter and Skype have greater and greater impact on our lives as more and more of our daily interactions occur digitally and asynchronously. Among all American adults, social media has a 65% usage rate, and a 90% usage rate among Americans aged eighteen to twenty-nine (Perrin, et al., 2015).
This increasing ubiquity has changed the way people communicate, and promotes individuals from simply consumers of media to co-creators.

“Not to put too fine a point on it, but the moment we’re living through is the largest increase in expressive capability in human history. Media is less and less about crafting a single message to be consumed by individuals, but more and more often a way of creating an environment for convening and supporting groups” (Shirky, 2009).

Increasingly, students express an interest in using social media to communicate with their instructors and peers, and faculty are formally incorporating the use of social media into their courses (Coffin, 2013). Here at College of DuPage, students in Education and English courses, among others, collaborate online by creating Wikipedia articles (Henningsen, 2015) and share information with industry professionals and experts on Twitter (Zawlocki, 2015).

The increased activity and interaction keeps the new generation of college students engaged more than traditional lecture, and this is one aspect of the new role of faculty in higher education (Zawlocki, 2015).

Sources:


Trend #9: Data Privacy Issues and Cyber Attacks will remain a prominent issue in higher education.

Trend Statement:
The increased reliance on IT systems and networks will continue to make those same systems a desirable target for attack by hackers, cyber criminals and cyber terrorists. Higher education institutions need to plan for next-generation security technologies and policies to respond to evolving threats.

Probability of change for the next 3-5 years: High

Support rationale:
As work and life becomes increasingly digital, the opportunity for theft and fraud increases as well. More and more services are becoming cloud-based, and the industry is expected to grow by at least 18% next year (Handmer, 2016).

Security policies vary from company to company, and some may expose users to unintended risks (Handmer, 2016). Cloud based service providers may not meet the standards set by an institution’s IT department (Network World, 2016). The prevalence of ransomware attacks is increasing. These attacks leave data inaccessible until a ransom is paid (TrendMicro, 2015).

Over the next 12 months we can expect to see more of these attacks because the easiest way to get the data back is to pay the ransom. “With a bit of forethought, better education and real-time security protection, not to mention a regular, robust back up routine, the threat of ransomware can be cut down to size (Network World, 2016).

Phishing attacks—tricking users into entering their credentials—are also increasing. “Phishing
attacks are growing more sophisticated all the time, as official-looking messages and websites, or communications that apparently come from trusted sources, are employed to gain access to your systems” (Network World, 2016).

In response to these threats, institutions will spend more on security technology and provide a higher level of training for employees. We can also expect to see security issues addressed in new legislation (Handmer, 2016).

The top three information security issues as reported by top-ranking IT professionals in higher education are:
1. Ensuring that members of the institutional community receive information security education and training;
2. Developing an effective information security strategy that responds to institutional organization and culture and that elevates information security concerns to institutional leadership;
3. Planning for and implementing next-generation security technologies to respond to evolving threats (Grama, 2016).

Sources: