MINUTES OF THE REGULAR MEETING

of the

BOARD OF REGENTS OF THE UNIVERSITY OF WISCONSIN SYSTEM

Held at Gordon Dining and Event Center 770 W. Dayton Street Madison, Wisconsin

Thursday, November 6, 2014 9:00 a.m.

APPROVAL OF THE MINUTES OF THE OCTOBER 9-10, 2014 MEETING	3
REPORT AND APPROVAL OF ACTIONS TAKEN BY THE CAPITAL PLANNING AND BUDGET COMMITTEE	3
Authority to Exchange Land with the City of Oshkosh, UW-Oshkosh	4
UPDATES AND INTRODUCTIONS	4
Chancellor Search Updates	
VETERANS SUCCESS CERTIFICATION PROGRAM	4
STATEMENT FROM GOVERNOR WALKER	5
PRESENTATION AND DISCUSSION: ACCOUNTABILITY REPORTS FOR 2013-14	6
UW System Reports – Interim Senior Vice President David Ward	
Students	
Faculty	
Programs	
Conclusions	
Regent Discussion	
UW MADISON REPORT – UW-MADISON PROVOST SARAH MANGELSDORF	
Degrees Awarded and Graduation Rates	
Access and Affordability	
Student Engagement	
Grant Funding	
Regent Discussion	17
PRESENTATION: TODD BERRY, PRESIDENT, WISCONSIN TAXPAYERS ALLIANCE – DEMOGRAPHICS AND THE	
FUTURE OF THE WORKFORCE IN THE STATE OF WISCONSIN	
State and National Economic Trends	22
Wisconsin Demography	22
Implications for the Economy	24
Implications for Education	24
Possible Actions	25
PRESENTATION: REGGIE NEWSON, SECRETARY, WISCONSIN DEPARTMENT OF WORKFORCE DEVELOPMENT	
OUTLOOK FOR WORKFORCE NEEDS IN KEY OCCUPATIONAL AREAS IN THE NEXT FIVE TO TEN YEARS	26
DISCUSSION WITH DR. BERRY AND SECRETARY NEWSON	30

BUSINESS LEADERS' PANEL DISCUSSION: BUSINESS PERSPECTIVES ON TALENTS NEEDED IN THE W	
NOW AND IN THE NEXT FIVE TO TEN YEARS, AND THE ROLE OF THE UW	36
TODD BATTLE, PRESIDENT, KENOSHA AREA BUSINESS ALLIANCE	37
KATHI SEIFERT, RETIRED EXECUTIVE VICE PRESIDENT, KIMBERLY-CLARK, & CO-CHAIR, NEW NORTH	38
Mark Tyler, Founder and President of OEM Fabricators, Inc.	40
Discussion	
UW CHANCELLORS' PANEL DISCUSSION: UNIVERSITY OF WISCONSIN RESPONSES TO WORKFORCE	E NEEDS, NOW
AND IN THE FUTURE	48
CHANCELLOR BOB MEYER, UW-STOUT	48
CHANCELLOR DENNIS SHIELDS, UW-PARKSIDE	
CHANCELLOR GARY MILLER, UW-GREEN BAY	50
CHANCELLOR REBECCA BLANK, UW-MADISON	51
Discussion	54
WRAP-UP, SUMMARY, AND FUTURE ACTIONS – UW SYSTEM PRESIDENT RAY CROSS	56
REGENT COMMUNICATIONS, PETITIONS, AND MEMORIALS	58
CLOSED SESSION	59
Closed Session Resolution	59
Student Request for Review of a UW-Milwaukee Decision	

MINUTES OF THE REGULAR MEETING

of the

BOARD OF REGENTS OF THE UNIVERSITY OF WISCONSIN SYSTEM

Held at Gordon Dining and Event Center 770 W. Dayton Street Madison, Wisconsin

Thursday, November 6, 2014 9:00 a.m.

-President Falbo presiding-

PRESENT: Regents John Behling, José Delgado, Tony Evers, Michael Falbo, Margaret Farrow, Eve Hall, Nicolas Harsy, Tim Higgins, Regina Millner, Janice Mueller, Drew Petersen, Charles Pruitt, Anicka Purath, José Vásquez, David Walsh, and Gerald Whitburn

UNABLE TO ATTEND: Regents Mark Bradley and Edmund Manydeeds

- - -

APPROVAL OF THE MINUTES OF THE OCTOBER 9-10, 2014 MEETING

President Falbo noted that the minutes of the October 9 and 10, 2014 meeting had been distributed. Regent Petersen moved their approval, and after a second by Regent Whitburn the motion carried.

- - -

REPORT AND APPROVAL OF ACTIONS TAKEN BY THE CAPITAL PLANNING AND BUDGET COMMITTEE

President Falbo called upon Regent Delgado, Vice Chair of the Capital Planning and Budget Committee, to present a report of the actions taken by that committee earlier in the day. Regent Delgado reported that the Capital Budget and Planning Committee considered one resolution, brought by UW-Oshkosh, requesting authority to exchange a Board of Regentsowned parcel of land in Oshkosh for a slightly larger parcel of land nearby. The second parcel is owned by the City of Oshkosh. No funds will be exchanged between the two parties. Regent Delgado said that the exchange would benefit UW-Oshkosh by providing better access to Third Avenue for the university's maintenance vehicles and would allow its physical plant operations to be kept in one location.

Regent Delgado moved approval of Resolution 10422. The motion was seconded by Regent Evers and adopted on a voice vote.

Authority to Exchange Land with the City of Oshkosh, UW-Oshkosh

Resolution 10424

That, upon the recommendation of the UW-Oshkosh Chancellor and the President of the University of Wisconsin System, authority be granted to exchange a Board of Regents-owned 0.37-acre parcel of land, which is located at 662 West Third Avenue, Oshkosh, Wisconsin for a 0.45 acre city of Oshkosh-owned parcel of land, which is located at 637 West Third Avenue, Oshkosh, Wisconsin. No funds will be exchanged between the two parties.

- - -

UPDATES AND INTRODUCTIONS

Chancellor Search Updates

President Falbo provided a preview of the meeting topics and then introduced Andy Leavitt, the new Chancellor of UW-Oshkosh. Dr. Leavitt joined the UW System from the University of North Georgia, a multi-campus comprehensive public university of about 16,000 students, where he was the Vice President of University Advancement. He also served as the Chief Executive Officer of the University of North Georgia Foundation. He holds a Ph.D. in Chemistry from the University of Utah, and he earned his Bachelor of Science Degree in Chemistry with minors in Physics and Mathematics from the University of Arizona.

President Falbo also provided an update on other chancellor searches. He noted that the announcement had been made that Cathy Sandeen would be the next chancellor of UW Colleges and UW-Extension. Dr. Sandeen is currently the Vice President for Educational Attainment and Innovation at the American Council on Education, based in Washington D.C. She will step into her new leadership post on December 15th.

The UW-Milwaukee Chancellor Search is ongoing. It is expected that finalists will be named later in November, with the final announcement of the chancellor-designate in mid-December.

Noting that the chancellor searches are one of the most important things the Board does, President Falbo thanked all involved for their participation.

Veterans Success Certification Program

President Falbo turned to President Cross for an announcement. Noting that the next Tuesday would be Veterans Day, President Cross said that over the years the University of Wisconsin System had made a strong commitment to veterans. Wisconsin is regularly recognized as providing veteran benefits that are among the most comprehensive in the nation.

The UW is also known for the supportive services provided on its campuses for veterans and family members.

President Cross noted that student veterans still represent a relatively small portion of the total students on UW campuses, less than 3 percent. However, they are a growing segment of the campus population. Since the Wisconsin GI Bill was implemented in 2005, the number of student veterans served by UW institutions has nearly doubled to just under 5,000.

President Cross said that an announcement would be made on Tuesday about creating a new Wisconsin Veterans Success Campus Certification Program. The program will help signify an institution's commitment in the broad areas of facilities, training, data, research, affordability, leadership services and collaboration, all with a larger goal of making the UW's educational experience more accessible, affordable and successful for student veterans.

With Veterans Day coming up, President Cross invited veterans in the room to stand and be recognized. Those who stood were met with applause.

- - -

STATEMENT FROM GOVERNOR WALKER

President Falbo noted that the meeting agenda reflected a possible visit by the Governor. President Falbo said that the Governor was unable to attend, but he sent a short note, which President Falbo read:

To President Falbo and Members of the Board of Regents:

Thank you for the kind invitation to attend your meeting. While I am regrettably unable to join you today, I remain committed to working collaboratively to ensure we are effectively leveraging the UW System in our efforts to grow Wisconsin's economy and create jobs.

I applaud your emphasis on workforce development and high-impact talent. And I appreciate the partnership and vision that helped create the innovative UW Flex Option Program.

I look forward to our continued discussions as we work together to build on the excellence and efficiency of education in this great state. My best wishes for a very productive meeting.

Warm regards, Governor Scott Walker

- - -

PRESENTATION AND DISCUSSION: ACCOUNTABILITY REPORTS FOR 2013-14

President Falbo said that the morning would begin with the presentation of the annual Accountability Reports prepared by both UW System Administration and UW-Madison. These reports represent the university's commitment to providing its diverse stakeholders – from students and their families, to legislators, to every taxpaying resident in the state who has an investment in the UW System – with a detailed assessment of what the university is doing and how well it is doing it.

President Falbo noted that one of the Regents' key responsibilities was to examine and analyze the performance of the institutions and to use that information to inform the Board's policy decisions. He said that he was pleased to report that this year marked the 20th anniversary of the System's annual Accountability Report, as the UW System's journey in accountability reporting began in 1993. The University of Wisconsin was the first statewide system of higher education to publish an Annual Accountability Report focused on consistent measures of access, degree completion, professional preparation, and stewardship of resources.

President Falbo said that the work the UW System had done with accountability reporting over the years demonstrated that it was delivering on the significant investment that had been made in higher education, and that a commitment to transparency and accountability had never been more important.

He reminded the Regents that multiple reports would be presented: one would align the university's performance measures with national standards, and the others would be responsive to Act 32, the 2011-13 Biennial Budget legislation that provided, for the first time, legislative performance measures for the UW System. The legislation required one report from UW-Madison and one for the balance of the UW System institutions. President Falbo said that in either format, these reports would provide Wisconsin residents with a clear picture of how the University of Wisconsin is making progress towards its goals.

UW System Reports – Interim Senior Vice President David Ward

To present and explain the 2013-14 Accountability Reports, President Falbo introduced Interim Senior Vice President David J. Ward, to be followed by UW-Madison Provost Sarah Mangelsdorf who would describe the Madison reports.

Taking the podium, Interim Senior Vice President Ward explained that the UW System Accountability Report presentation would be organized around three essential parts of the university's business as a higher education enterprise: students, faculty, and programs.

Building on President Falbo's comments about the history of accountability in the state of Wisconsin, Interim Senior Vice President Ward described how the UW's 1993-94 report was preceded by a Governor's Taskforce on UW Accountability, appointed by Governor Thompson in 1993, which developed some of the parameters used for later reports. The two System reports include a lot of indicators, he said -- 30 indicators in the Act 32 report and 22 in the Knowledge

Powers report. Dr. Ward said that he would try to tell the story of what those indicators are saying.

Students

Interim Senior Vice President Ward began with enrollment, referring Regents to a chart detailing total headcount enrollment for the UW System, which indicated a significant increase in enrollment between 2003-04 and 2012-13 and showed that undergraduate students made up a preponderance of the university's enrollment.

Interim Senior Vice President Ward noted that part of the UW System's enrollment came from a significant body of transfer students, which now numbered over 15,000 a year. Transfers from the Wisconsin Technical College System had grown to account for about 25 percent of all transfers. That was an interesting indicator, he said, because it probably also indicated the degree to which transfer agreements had developed between the two systems. Interim Senior Vice President Ward shared that the state and the university have invested in transfer tools, the most prominent of which was probably the Transfer Information System, which allows students to see how their courses will transfer from campus to campus, including WTCS campuses.

Dr. Ward observed that the racial and ethnic make-up of UW System enrollment from 2003-04 to 2012-13 had changed significantly, with minority enrollment increasing from about 9 percent to about 13.5 percent, reflecting the UW System's efforts to increase service to underrepresented minorities.

Interim Senior Vice President Ward said that one of the key measures being followed very closely was retention to the second year, which he explained was a fairly good indicator of how well the UW System was doing in terms of getting students to complete a degree. He referred to a chart on the screen which indicated that the UW System was close to or slightly better than the national average in terms of retention to the second year.

Another chart showed that the retention rate for under-represented minorities was slightly lower than that for other students. He observed that the retention rate gap that existed when the UW System began measuring it in 1998-2000 had closed in the 2008-09 period, but had since opened up again a little bit.

Interim Senior Vice President Ward moved on to the next slide, which showed six-year graduation rates from 1998 to 2007.

Regent Whitburn asked why the UW System's graduation rate appeared to decline in 2004, while the national graduation rate appeared to be steadily increasing throughout that period. Interim Senior Vice President Ward replied that he did not have an explanation, although he noted that the UW System had experienced enrollment growth. He went on to say that the effect of actions taken by the university today would not be known until 2020, and similarly the trend in graduation rates observed by Regent Whitburn might be reflective of policies or circumstances from 2000-01.

With respect to degrees conferred, Interim Senior Vice President Ward pointed out that the UW System had increased that number substantially, from 30,976 in 2004-05 to 36,323 in

2012-13. More importantly, he said, 67 percent of graduates from UW institutions stay to live and work in Wisconsin, including 81 percent of Wisconsin residents who graduated from a UW institution. Among out-of-state students, 10 percent of Minnesota reciprocity students and 13 percent of non-residents continued to reside in Wisconsin after graduation.

Interim Senior Vice President Ward then turned to the next slide, which showed the racial and ethnic make-up of UW System baccalaureate degree recipients. The percentage of degree recipients represented by racial and ethnic minorities increased from about 7 percent in 2003-04 to just under 10 percent in 2012-13.

Regent Vásquez wondered whether the University had a specific target in mind for the percentage of racial and ethnic minority degree recipients, or if it was simply aiming for a steady increase. Interim Senior Vice President Ward responded that he was not aware of any target or goal, but suggested that such a thing could become part of a strategic plan by the Regents. He explained that the overall goal has been to see an increase in racial and ethnic minority degree recipients over time, and that an apparent increase in the rate of change starting in 2007-08 was a good indicator of that happening.

Interim Senior Vice President Ward also noted that the substantial graduation rate gap between under-represented minorities and the student body as a whole was closing, but it was doing so very slowly.

The next slide detailed a decrease in the average number of credits attempted by UW students who had earned a bachelor's degree from 1993-94 to 2012-13. Interim Senior Vice President Ward recalled that in 1993-94, attempted credits for a bachelor's degree was a hot topic that gained the attention of the Regents, who ordered a review of the structure of degrees to combat "credit creep." Explaining that "attempted credits" included credits counted when a student enrolled in a course and then dropped it, he informed the Regents that drop rates were now well under 5 percent on most of the campuses and were steadily declining. Though this would not preclude the possibility of another review, he believed that it was a good example of Regent policy leading to action and to results.

Dr. Ward's next slide compared national and UW System averages for professional practice and advanced study exam scores. Interim Senior Vice President Ward shared that UW System students had performed above the national averages on Nursing Licensure, GRE, and MCAT examinations, and above the state average on the CPA examination.

He moved on to a slide detailing the percentage of study abroad and exchange experiences for bachelor's degree recipients. Noting that the Regents had at one point set a goal for 25 percent of UW System students to have an international experience, he explained that the number of study abroad experiences had increased slightly from 2002-03 to 2012-13, with about 14 percent of UW System students studying abroad or participating in an exchange.

Regent Vásquez, observing that the Regents' goal had not been met, asked whether there was any feeling from the chancellors, the campuses, or other administration that 25 percent was too high. He wondered if study abroad experiences needed to be given more attention, as globally it would be important for UW students to know more about what is happening in international settings.

Interim Senior Vice President Ward turned to the chancellors for their comments. UW-Whitewater Chancellor Richard Telfer stated that one of the issues with study abroad was money, noting that it takes more money for students to study abroad than to study at home. Another issue was the program, he explained, as students do not all feel that the study abroad programs have credits that would be applicable to their degree. Chancellor Telfer concluded that campuses were conscious of this issue, but it was a matter of how to provide the funding to allow students to have those experiences.

UW Colleges and UW-Extension Interim Chancellor Aaron Brower added that a lot of the funding that does exist is federal financial aid, and if study abroad programs are not 16 weeks, or if there is no instruction for a week before or after a semester-long experience, students cannot receive financial aid for that study-abroad experience.

UW-Stout Chancellor Meyer said that he was impressed with how many opportunities students have with international studies. UW-Stout offers some sort of international experience for every program, and in many cases there are multiple opportunities for each program. Some of these opportunities have grant funding available, so there is no cost to the institution. Chancellor Meyer acknowledged that it was an expensive proposition and that UW-Stout had been seeking private support. Just before the present meeting, a donor had committed \$25,000 in an endowment to help UW-Stout with its efforts to provide study abroad opportunities.

Regent Vásquez again wondered if further discussion on this issue would be beneficial, considering national conversations about the role of the United States relative to the world economy and how the country was said to be losing ground with respect to the multi-language skills and international education of its graduates.

Regent Whitburn followed up by asking about the UW System's outreach globally; listing countries in which UW institutions have significant numbers of students, he asked about coordination within the UW System and whether the UW System was keeping up with its peers on this front; he said that he shared Regent Vásquez's interest in further discussion and focus on this issue.

President Cross observed that the economy was having an impact, as were security issues associated with foreign travel. Also, studying abroad can add to time-to-degree unless the student is in the right program and can figure out how to fit it in. President Cross concluded that there were a number of factors causing families and students to look at studying abroad with pause, and that part of the university's challenge was to find a way to advance this. He said that the UW System's students need to be a part of the world's economy and cultures if the university is going to be successful in the future.

Reporting on another indicator of student performance, Dr. Ward briefly discussed public service and civic participation. According to the UW System's 2011 National Survey of Student Engagement (NSSE) data, UW students had a fairly high rate of participation in community and local projects.

Faculty

Returning to his opening statement that the three key aspects of the university are the students, the faculty, and the programs, Interim Senior Vice President Ward stated that the UW System had very few accountability measure indicators for faculty and for programs, which was why he asked that this data be assembled.

He noted that the Regents had already had discussions about faculty turnover, but that he wanted to bring the greater proportion of probationary faculty in the UW System's faculty talent pool to the attention of the Board. The only other indicator in the Accountability Reports for faculty, he said, was on faculty and staff diversity. He turned to a slide comparing the changing demographics of faculty and instructional academic staff with that of administrators and academic leaders. The data showed a more favorable trend for increasingly diverse faculty and instructional staff, while diversity among administrators and academic leaders had leveled off at about 10 percent.

Programs

In terms of programs, Interim Senior Vice President Ward said that one indicator was the increasing number of collaborative degrees, which he believed was getting to be more important because of the cost of higher education and the ability to work together to deliver programs. He explained that there are collaborative degree programs between the two-year and four-year campuses, between the four-year institutions, and also between the UW System and non-UW partners.

The final program indicator was degrees conferred in STEM and health fields. From 2003-04 to 2012-13, the UW System had an increase of about 35 percent in STEM and health field degrees conferred. Interim Senior Vice President Ward said that this was a substantial change, but he believed it could be higher. He reminded Regents that these programs tended to be higher-cost programs due to clinicals and the need for supervision of student activities.

Conclusions

In drawing conclusions from the Accountability Report data, Interim Senior Vice President Ward observed that there were areas of achievement, including a substantial decrease in credits-to-degree over time, and increases in research expenditures, STEM degrees conferred, and transfer enrollment.

Areas for improvement included enrollments, which had peaked and seen a slight decline. Interim Senior Vice President Ward noted that the UW System's market share of high school graduates in Wisconsin, currently at 32 percent, had not changed substantially in a long time.

He continued by saying that the UW System always needs to do better in its graduation and retention rates, and that the discussion had already touched on issues such as study abroad and gaps in retention and graduation among low income and under-represented minority students.

Interim Senior Vice President Ward concluded his presentation by suggesting some of the directions the UW System might be going in the future. He observed that by looking at some of the key measures from a longer view, there emerged a very interesting picture of not only accountability but productivity over the last ten years: Enrollments increased 8 percent between 2003-04 and 2013-14; output of degrees conferred increased by about 25 percent; STEM degrees conferred increased by about 41 percent; and gifts and grants increased by 69 percent, to \$1.5 billion, mostly coming from outside of the state, which was another indicator in terms of economic development.

He also identified areas that may require more attention, noting that enrollments in distance education courses saw a large increase, up from 26,000 students in 2003-04 to 128,000 students in 2013-14. He pointed out that the number of students of color was up about 73 percent over that same period.

Finally, Interim Senior Vice President Ward provided an update on the UW System's ongoing efforts to move away from hard-copy reports on indicators to a dashboard approach. The plan is for a 2015 launch of the dashboard, which will allow the Regents to do their own analysis with the databases. He shared that he had seen an interesting demonstration of the dashboard's interactive capabilities, which would allow users to select data and manage it within that dashboard.

Regent Discussion

Having finished his presentation on the UW System Accountability Report, Interim Senior Vice President Ward invited questions from the Regents.

Stating that she had spent a lot of time looking at the reports, Regent Mueller commented that some areas needed to be rebooted. Noting that Interim Senior Vice President Ward had mentioned in his presentation that some of the measures had changed over time, Regent Mueller said that the UW System needed to continue to do that.

Regent Mueller said that, by far, the weakest section of the report was on administrative spending. She observed that the administrative spending data listed no numbers, only percentages, and was in some cases flawed. Regent Mueller went on to say that a particular concern of hers was that there was a strong incentive to code positions in the university to anything other than administration; for example, positions were often coded to student services.

Regent Mueller noted that the legislatively-mandated report, in particular, was asking for numbers and counts rather than percentages, which can be deceiving. She hoped that some of the individual measures could be rebooted.

She said she would also share with the staff some technical notes, as some of the data were quite dated. She used graduates staying in Wisconsin as an example, saying that the data were from 2007.

Having made these points, Regent Mueller also said that she believed the UW System's Accountability Reports were probably the best in the nation, and certainly the oldest. She said that she believed they gave a clear picture, but that some of the individual indicators need some work, or "rebooting."

Recalling that Native American tribal leaders had visited the Regents at their last meeting at UW-Stevens Point, which she said was "very moving and meaningful," Regent Mueller wondered why there were no collaborative programs with the tribes listed in the Accountability Report. She knew that the UW System had been working on such programs, including one between UW-Oshkosh and Wind River, Wyoming.

UW-Oshkosh Provost Lane Earns explained that the Wind River program had originally been working with UW-La Crosse, before coming to UW-Oshkosh about ten years earlier for help getting accreditation for its campus. He said that UW-Oshkosh also had a number of collaborations with Native American institutions within the state, involving nursing, education, and letters and science.

Interim Senior Vice President David Ward said that on that issue of collaborative programs, there were quite a few transfer agreements between, for example, the College of Menominee Nation and UW-Stevens Point, UW-Green Bay, and UW-Oshkosh. He told the Regents that he had recently visited with Dr. Verna Fowler, President of the College of Menominee Nation, and that she had mentioned those programs specifically. He explained that these examples were joint degree programs, but they were also collaborative programs in the sense of transferability.

Regent Whitburn observed that Interim Senior Vice President Ward had served in his current post two different times, the first being 14 years earlier. Regent Whitburn then asked him to share with the Regents where, from his unique longitudinal perspective, the UW System needed to make some interventions.

Interim Senior Vice President Ward said that there were three areas that he was still concerned about. Regarding students, he said that he was disappointed that the UW System was still dealing with remedial education, which he said the Regents had been concerned about throughout the 30-some years that he had been attending Board meetings. Although the university had made some progress in some areas, he said, with regard to remedial education it had not made progress in connecting with the schools.

In the faculty area, Interim Senior Vice President Ward said he was concerned about the talent pool. He observed that production from Ph.D. programs, particularly in critical areas, was flat or declining, and that the UW System was not competitive in compensation nationally. He warned that the talent pool was not growing like it had in the 1970s and 1980s when the federal government was investing money in people.

Interim Senior Vice President Ward said he would take the long view in the program area, looking all the way back to the 1971 merger of the old UW System with the Wisconsin State University System. He recalled that in his farewell speech in 2000, he expressed concern that the program array in 2000 was 100 programs fewer than what was available at the time of the merger, in an environment where knowledge had exploded. Dr. Ward said that today the UW System was back to where it was at the time of the merger, having added a few programs a year over the last 10-14 years, but he was concerned that the System had too tight a grip on that.

Regent Whitburn also wanted to know, in light of national conversations about higher education accountability, what Interim Senior Vice President Ward believed were the UW

System's strengths and weaknesses if the federal government were to look into the university's performance. Interim Senior Vice President Ward said that he would defer on that question, as he did not know the answer.

Regent Pruitt followed up on Regent Mueller's suggestions about focusing some of the accountability measurements. He said that the Accountability Reports were the best thing the university does in terms of measuring, reporting, and taking ownership and responsibility for trends. However, how the UW System measures graduation rates, both overall and by institution, had troubled Regent Pruitt for many years. He noted that the current measurement was the six-year graduation rate of the institutions where students started their educations. Regent Pruitt said that this measurement was unfair to access institutions, where students start before moving and graduating from another institution. He wondered if there was any way the UW System could get a better handle on measuring graduation rates by institution. Regent Pruitt also wondered how the UW System tracks graduation rates for transfer students within the System.

Associate Vice President Heather Kim thanked Regent Pruitt for his question, noting that he had raised an important point. She explained that the UW System had been reporting the so-called success and progress rate in its Accountability Report. The information presented tracks not only those who started and graduated at the same place, but also follows the students who leave, to see if they enrolled at and graduated from somewhere else. She said that both the System report and the institutional reports included that data; when the Dashboard launches in 2015, this indicator would be included there, as well.

Regent Pruitt followed up, asking about giving credit to institutions where students began their studies. Using as an example a student who starts at UW-Parkside and attends there for two years before going on to graduate from UW-Madison, he explained that he would not necessarily want to take credit away from UW-Madison for the graduation of that student, but he also did not want to punish UW-Parkside with the suggestion that it somehow failed that student.

Dr. Kim replied that the institutional measurement of the success/progress rate presented by the UW System included those students who transfer out but then successfully graduate from elsewhere as part of the institutional data, and that would continue in the dashboard.

Taking a moment to refer back to Regent Whitburn's earlier question about why the national trend was going up for the six-year graduation rate, while the UW System's trend was going down, Associate Vice President Kim said that a look at the raw data showed that the difference there was not too significant. She acknowledged that it did not excuse the UW System from trying to do a better job, but she wanted to make sure that the Regents knew it was not a significant decline.

Regent Farrow wanted to add to Regent Pruitt's comments, recounting how she had breakfast at with two nursing students on the Friday morning of the meeting at UW-Stevens Point. She explained that these two men were moving on to a nursing program at UW-Eau Claire, but had loved their experience at UW-Stevens Point. Regent Farrow said that though they had nothing against UW-Eau Claire, these students wanted to know why their degree could not also reflect their connection with UW-Stevens Point, where they had spent their first two formative years in college.

Interim Senior Vice President Ward thanked the Regents for their questions and comments.

President Cross then provided a brief summary of the discussion on the Accountability Reports up to that point. He noted that there had been questions about targets and goals, and said that he knew the campuses had targets and goals for some of the accountability measures. He reminded Regents that as the UW System goes through its strategic planning process, more of those would emerge.

President Cross thanked Regent Mueller for making excellent points about the importance of focusing some of the data and including numbers with the percentages, noting that he had also encountered that preference at the capitol.

He repeated Interim Senior Vice President Ward's statement that the UW System did not have much data on faculty and programs, and acknowledged that there also was not a lot of data on administration. He expressed the hope that as the UW System merged this information into a dashboard model, the Regents would be able to provide continual guidance in the process. President Cross said that the clarity with which the UW System was able to express that information online in the dashboard tool would be helpful for decision-making processes throughout the organization.

UW Madison Report – UW-Madison Provost Sarah Mangelsdorf

Provost Sarah Mangelsdorf then presented UW-Madison's legislatively-mandated report for 2014. Thanking the Regents for inviting her to present the UW-Madison Act 32 Accountability Report, she said that it was a good exercise for a new provost, allowing her to take a deep dive into the data about the UW-Madison campus.

Stating that she believed in active learning, Provost Mangelsdorf invited the Regents to interrupt her presentation if they had any questions along the way. She noted that her presentation would in some ways mirror that of Interim Senior Vice President Ward's, because some of the same indicators are used in each accountability report.

Degrees Awarded and Graduation Rates

Provost Mangelsdorf stated that each year UW-Madison awarded more than 10,000 degrees -- mostly bachelor's, but also master's, clinical doctorates and PhDs. This number had increased slightly from 2009-10, but was fairly stable.

Provost Mangelsdorf said that UW-Madison's overall six-year graduation rate was increasing and would, she hoped, be at 85 percent by the next year, while the four-year graduation rate was at 57 percent. Retention from freshman to sophomore year at UW-Madison was more than 95 percent, which she explained was the result of the university's putting more money into hiring advisors and providing the best possible advising, starting around 2009-10.

Breaking down the graduation rates of sub-cohorts of students, Provost Mangelsdorf said that there were significant gender differences; for example, the four-year graduation rate was 47.8 percent for men and 65.3 percent for women. There were also lower four-year graduation

rates for a number of other groups, including first-generation students, low-income students, and Pell Grant recipients, among others.

Provost Mangelsdorf said that one question that people were always interested in was where UW-Madison's graduates end up. Looking at the data for UW-Madison graduates over the last 10 years, Provost Mangelsdorf said that, of those who were Wisconsin residents when they came to UW-Madison as students, 76 percent were living in Wisconsin in 2013. Of those who were not Wisconsin residents, 8 percent were living in Wisconsin in 2013. She explained that this information was based on the known addresses for 91 percent of UW-Madison's alumni, and that the campus was working every year to try and improve that data.

Regent Walsh asked if it was possible to tell from the data whether these were people who had graduated ten years ago and were starting to come back, or if they were more recent graduates who had stayed in the state.

Associate Provost Jocelyn Milner replied to the question, saying that when broken down between older and newer graduates, those who graduated ten years ago resided in Wisconsin at a slightly lower rate, while recent graduates were more likely to stay.

Regent Whitburn said that for years he had been hearing about brain drain, with UW graduates moving off to the Twin Cities or Chicago. In looking at this data, he wanted to know if that conversation was exaggerated. Provost Mangelsdorf said that many graduates do stay in Wisconsin, and recently there were employers, such as Epic, that were keeping UW-Madison's recent grads right in the Madison area. She stated that this did not look like brain drain to her.

Regent Walsh observed that there may be something about Wisconsin that is attracting graduates, but there may also be something about the economy that is forcing them back home. Provost Mangelsdorf pointed out that one thing to look at was who was coming to work in Wisconsin who had graduated from other schools around the nation, saying that she believed that the latter was happening also.

Regent Mueller noted that the numbers may be affected by recent graduates' tendency to keep their home addresses for a while because they are moving around a lot. Provost Mangelsdorf acknowledged Regent Mueller's point. She said that UW-Madison does the best it can by, for example, using a new database to track alumni by including information on their place of employment.

Access and Affordability

Provost Mangelsdorf next discussed access and affordability. Showing slides on this topic, she noted that many minority students at UW-Madison were coming from out of state. She also said that the bulk of financial aid for UW-Madison students was coming from federal aid programs, including federal loan programs in addition to direct grants and work study. Some aid was coming from the state and the institutions, as well.

Provost Mangelsdorf said the published in-state tuition and required fees was \$10,410 per academic year; with room and board and other expenses included, the average cost was \$24,222. The average net cost of attendance, including in-state tuition, required fees, room and board, and other expenses, would be \$8,300 for a family earning less than \$30,000 annually and \$22,900 for

a family with an income of more than \$110,000. She told the Regents that the overall cost of tuition and required fees for in-state students was still quite affordable relative to the university's public Big Ten peers, and that other schools were raising their nonresident tuition at faster rates than UW-Madison.

Focusing on graduation rates, Provost Mangelsdorf said that one thing UW-Madison had to look at was whether students had access to the courses they needed in their majors. A few years earlier, the campus had put extra resources into course access and student advising to help students find the courses they needed. Based on student surveys from the National Survey of Student Engagement, Provost Mangelsdorf said that UW-Madison seemed to be making some progress, as first-year students were saying that they felt they were able to get their major courses and also had more ready access to general education courses.

With regard to the most popular majors at UW-Madison, Provost Mangelsdorf said that the most popular major, based on juniors' and seniors' current enrollment, was engineering, followed by business, biological and biomedical sciences, and social science majors.

Student Engagement

Next Provost Mangelsdorf discussed how UW-Madison students were engaging with their communities and with the world. She said that the study abroad participation rate for the UW-Madison campus was at 25 percent; Provost Mangelsdorf said she would like to see this increase, but as had been pointed out earlier, there were certain limitations if students had some forms of federal financial aid. She said that the university needed to consider ways to raise money for scholarships so students who were on financial aid could study abroad. Finding study abroad programs that allow students to take some of the courses they need for their major requirements would help increase the number of students who can study abroad.

Provost Mangelsdorf stated that UW-Madison students also do a lot of research, and participation in undergraduate research experiences had increased from 19 percent in 2009 to 36 percent in 2014. She explained that students were doing service learning, working for credit, and doing capstone experiences and seminars to enhance their classroom experience; 90 percent of students were doing at least one of these, and 73 percent were doing more than one.

Next Provost Mangelsdorf shared some information about graduate and professional education at UW-Madison. The most popular master's degree programs were once again in engineering, while the program with the lowest enrollment was the nursing practice doctorate.

Grant Funding

In terms of economic development, Provost Mangelsdorf said that one way that UW-Madison contributes to Wisconsin's economy is through the millions of grant dollars that its faculty brings into the campus. Referring to a slide showing that total grants and awards at UW-Madison had peaked in FY10 and were since in decline, Provost Mangelsdorf explained that the peak was reflected in all national statistics as well, as it was the result of federal Stimulus Act funds. Faculty members who had grants at the time could apply for supplemental funds.

Provost Mangelsdorf said that UW-Madison has a diverse portfolio of grant funding, including federal, state, corporate, and foundation funding sources. She noted that most recently the bulk of UW-Madison's funding was coming from the National Institutes of Health.

Provost Mangelsdorf explained that when faculty received grants, they purchased equipment and supplies, spending dollars both worldwide and specifically within the state of Wisconsin; and they patented and licensed their intellectual property in order to take it to the marketplace, which was a good indicator of possible economic development in the future.

Provost Mangelsdorf said that Madison's accountability report also included a great deal of other information, including details about the estimated direct and secondary employment created by UW-Madison, visitor spending, student spending, and operational spending. She asked the Regents if they had any questions.

Regent Discussion

Referring to the slide from Provost Mangelsdorf's presentation that included information about patents and licenses, Regent Higgins asked if licensing income came to the university through the Wisconsin Alumni Research Foundation (WARF). UW-Madison Chancellor Rebecca Blank replied, saying that the licensing went through WARF and the resulting income worked as revenue, with some being spent on projects in WARF and some being sent back to the university.

Regent Hall asked if there was a breakdown of graduation rates by race. Provost Mangelsdorf explained that in the slides she used in her presentation all under-represented minorities were grouped together, with a six-year graduation rate of 72.8 percent and a four-year graduation rate of 37.9 percent. Associate Provost Milner added that UW-Madison also had that information broken down by specific groups, such as African American, Native American, or Latino, and that the information could be provided. Regent Hall said that she would be interested in that breakdown.

Regent Hall's second question was about minority-student enrollment by tuition residency. She said she found it interesting that the percentage of nonresident minority students was higher than that for the Wisconsin residents. Regent Hall suggested that there was an opportunity to increase the number of minority students from Wisconsin to attend the UW System. She asked for clarification about what the percentage differences meant.

Provost Mangelsdorf suggested that the higher nonresident enrollment of minority students might be because UW-Madison was working with programs that recruited nationally. She said that the campus does actively work to recruit from within the state of Wisconsin. Chancellor Blank agreed, and added that it was also true that the percentage of minorities was much higher outside of the state of Wisconsin than inside the state of Wisconsin. She explained that because that was the case, one would expect a higher nonresident minority student percentage. Chancellor Blank said that although she was not surprised by the difference, she did not disagree with Regent Hall that UW-Madison could always work to increase minority student enrollment from within the state.

Regent Vásquez, following up on Regent Hall's comments about graduation rates, said that he also found the difference between underrepresented minority students and the rest of the student body to be interesting. He wanted to know if there was any information to indicate whether the UW System was on target relative to the national trends in graduation rates, and if there was a way to also compare graduation rates at each of the institutions within the system. Provost Mangelsdorf said that she believed that what UW-Madison was reporting was comparable to some of its national peers.

Associate Vice President Kim added that UW-Madison currently did not plot the national average graduation rate for each individual racial group, but that such a comparison would be possible using Integrated Postsecondary Education Data System (IPEDS) data. With regard to Regent Vásquez's question about comparing the campuses to each other, she said that it would not be a fair comparison because each institution has a unique mission, which impacts the type of student body that they attract.

Regent Whitburn recalled that about two years ago the Chronicle did a national ten-year study comparing all major campuses, private and public, large and small, in the various states. He said that he had drawn Associate Vice President Vicki Washington's attention to that study, and at the time the UW System seemed to be performing comparably with its peers.

Regent Mueller added that some of the data that Regent Hall was looking for was on page 5 of the UW-Madison accountability report, in the table titled, "New Freshmen Entering Full Time." Reading from the page, Regent Mueller said that, for example, there were 181 African American students who started in the fall of 2007, and only 68 percent of those students graduated. Regent Mueller asked how many of those 181 students came from out of state. Chancellor Blank commented that UW-Madison had this data broken down and could provide answers if there were specific questions along those lines.

Regent Hall said that, knowing the struggles around education and workforce access for under-represented minority students, she was looking at opportunity. She encouraged UW-Madison leadership to continue identifying ways to increase the number of students from Wisconsin who might qualify to attend UW-Madison or any of the other UW campuses, while also looking at under-represented students from out-of-state because both groups were needed.

Noting the title of the Legislated Accountability Report, Regent Pruitt wondered if there might be a benefit to highlighting the UW System's partners in state government. To answer the question of where additional investment needs to be in order to improve educational outcomes, Regent Pruitt said that there were a number of measurements within this report. Five years ago the university adopted the Undergraduate Initiative, differential tuition designed to improve outcomes for students. Regent Pruitt said that since the implementation of that initiative, there appeared to be improvement in areas such as advising and graduation rates, access to gateway courses, and participation in high-impact practices. He suggested that as the UW System goes forward into a budget period, using the Undergraduate Initiative might provide some benefit in terms of underscoring the issues and the connection between investment, whether tuition or GPR dollars, and educational outcome.

Provost Mangelsdorf said that she could not agree more. She shared that when she asked her colleagues why UW-Madison had seen certain improvements starting three to four years ago, they had told her that it was because the campus had invested in things like advising.

Chancellor Blank said that the previous spring, before Provost Mangelsdorf came on board, UW-Madison had issued a report on the impact of the investment from the Madison Undergraduate Initiative, which showed a direct link between those investments and what is happening in terms of outcomes. Telling the Regents that she would be happy to provide copies of that report, Chancellor Blank said that it was encouraging of the idea that the campus actually can make money matter if it uses the money in the right way.

Regent Farrow commented that she did not think it was as important for the Regents to see the report as it was for 132 people at the capitol. She said that legislators have to understand the efforts being made, the results being seen and what the priorities are as compared with what the legislators think the priorities should be.

Regent Farrow shared that she preferred how the information was being presented that morning (PowerPoint slides) over the printed reports, saying that the presentations went straight to the point, telling her what she wanted to know without flowery narratives.

Regent Farrow asked why the UW System could not do one report that fulfilled the needs of Act 32, as maybe that would allow legislators to see that what they asked for was not the best or clearest solution to the System's present problems or issues. She stressed the importance of clear information.

Provost Mangelsdorf said that the university was hoping to move toward the dashboard, where one could go online and pull up all of the data just the way he or she wanted it without having to weave through all the reports.

President Cross agreed and, responding to Regent Pruitt's earlier comment, said that he hoped that in the future the UW System would provide more of an interpretation for the Regents of what was being learned from the reports – what changed, and why.

President Falbo commented that people at the capitol were asking for the same thing, noting that Senator Sheila Harsdorf had been a champion of the dashboard project.

Speaking to Regent Farrow's comments, Regent Walsh said that she had asked a good question and affirmed that the UW System should always focus on being responsive. Referring to his institutional knowledge going back 14 years, Regent Walsh noted that this conversation took place about every two years, and that while those at the university were all working at it, the fact was that legislators had other responsibilities and pressures and crises to handle.

Regent Walsh said that the university collects a lot of data, and it should not ever be assumed that the UW System has the perfect report – it has to be a report that fits the time. Regent Walsh said that the key was that the Regents and the UW System should never think they had it right. The people asking the questions have different perspectives and different priorities, and the Regents and the university need to continue to be responsive.

Regent Purath had two questions, the first going back to graduation rates and time to degree. She wanted to know if consideration had been given to whether certain types of degrees were taking students longer to finish, perhaps because they were not getting into the courses that they needed to complete the degree. UW-La Crosse Chancellor Joe Gow replied that there were some degrees that required more credits due to accreditation. He provided examples, such as an education degree, which requires a student teaching experience.

Regarding graduation rates, Chancellor Gow said that as chancellor he received comments from people about all kinds of things, but in his eight years at UW-La Crosse, he had never had a parent contact him to say, "My daughter or son won't finish on time because the classes aren't available." If students do have difficulty registering for a class, this can usually be worked out. Chancellor Gow noted that for those taking longer to graduate, reasons included a choice to stay longer for internships, study abroad, or a double major.

Assuring Regent Purath that the university was doing everything it could to make sure courses were available, he said that he believed that the graduation rate issue was oftentimes misunderstood because people did not appreciate that students were making decisions. Chancellor Gow asked Regent Purath how long she intended to stay at UW-La Crosse. She replied that she would be at the campus for four years, as she would be staying an extra semester so that she would not graduate in 3 ½ years.

Chancellor Gow said that the other piece of the issue was simple math: If a student did not take 15 credits a semester, he or she could not finish in four years. Banded tuition allows students to take 12 to 18 credits, so students with a heavy load may take only 12 credits one semester.

UW-Stevens Point Chancellor Bernie Patterson commented that bottleneck courses remain a problem and explained that UW-Stevens Point had just finished a major revision of its general education requirements, reducing them anywhere from 15 to 24 hours, which would help students with time to degree. The UW-Stevens Point provost also led the campus's Program Prioritization Effort, asking every department to look at its degree requirements and reduce those to 120 hours, with a couple of exceptions due to accreditation, such as music education and engineering. Chancellor Patterson emphasized that the exceptions would be few and would be documented by accreditation requirements or something similar.

Chancellor Blank commented that data show that out-of-state students' four-year graduation rate is much higher than the rate for in-state students. She explained that it was all about price, and that while there were many good reasons to keep price low for the in-state students, one of the negative effects was that it was relatively cheap for those who wanted to stay longer to do so.

Vice President Millner said that in her visits to various campuses she had witnessed more attention being paid to advising, both within majors and across the board. Vice President Millner suggested that it is important to educate students about necessary courses and the cost of time to degree.

Regent Purath had a second question concerning enrollment. Aware that her peers were turning to online resources to learn about schools and programs, Regent Purath wanted to know

if there were any plans to improve or promote tools such as the UW Higher Education Location Program (HELP) "Major Mania" website. She said that she was not aware of that tool when she was in high school, and without an effective guidance counselor she only learned about UW-La Crosse through students who had graduated before her.

President Cross, speaking as the former chancellor of UW Colleges and UW-Extension, said that UW HELP should win some awards, as it was a wonderfully helpful resource. Though it was being heavily promoted, President Cross acknowledged that it may not be promoted in all the right places, and he said he would be interested in some of Regent Purath's thoughts as to how it could be promoted better.

Regent Higgins commented on the number of students who were now coming into the System with college credits that reduce their time to degree or who were able to test out of certain courses because of their coursework in high school. He said that this demonstrated a positive collaboration between Wisconsin's K-12 system and the universities.

President Cross pointed out that there was an irony in the situation Regent Higgins was describing. It seemed that the students who did very well and took college courses while they were in high school, otherwise called concurrent or dual enrollment, did not actually complete a degree quicker because they often completed a double major or participated in a study abroad experience. He explained that the better students in high school often want to do more things while they are in college. However, as the UW System expands concurrent enrollment, President Cross said that he believed that it would actually have an impact on reducing time to degree.

Closing the discussion, President Falbo stated that the accountability reports would next be delivered to the Governor and every legislative office. Each institution also had copies of both the main reports and its own institution-specific accountability report, which the chancellors would use to design improvement strategies with their colleagues. The reports would be posted on the UW System website, where archived copies of past years' reports also could be found. President Falbo thanked everyone for having a great conversation about the reports.

- - -

PRESENTATION: TODD BERRY, PRESIDENT, WISCONSIN TAXPAYERS ALLIANCE – DEMOGRAPHICS AND THE FUTURE OF THE WORKFORCE IN THE STATE OF WISCONSIN

President Falbo provided an overview of the rest of the meeting, noting that the remaining portion of the morning would include two guests who would share their experience and expertise regarding some of the key demographic and workforce trends within Wisconsin. After the two presentations, the presenters would join the Regents at the table for further conversation and questions. He then welcomed and introduced the first speaker, Todd Berry, President of the Wisconsin Taxpayers Alliance, to talk about the state's major demographic trends.

Dr. Berry began his presentation by explaining that the Wisconsin Taxpayers Alliance became interested in demographics because its analysis of economic trends indicated that Wisconsin's economy and employment trends were beginning to differ from national trends. He explained that his presentation would briefly address Wisconsin's economy, followed by the state's demographic and population forecasts, as well as implications and possible actions for the UW System.

State and National Economic Trends

Pointing to a slide comparing the per capita gross domestic product for the U.S. and Wisconsin, Dr. Berry noted that Wisconsin's economy changes as the nation's economy changes, regardless of who is governor or who is serving in the legislature. He also noted that Wisconsin's economy does not have the peaks and valleys that the national economy has, and it enters and comes out of recessions a bit earlier. He said this is due to the state's industry mix, which is heavily based on manufacturing.

Dr. Berry said that he also wanted to dispel the myth that there is one "Wisconsin economy," as he pointed to another slide comparing changes in the state's and the nation's employment since 2001. Employment changes in Wisconsin were similar to changes nationally, although changes at the state level were a bit slower and weaker than at the national level. He enhanced the slide to include employment trends in the four-county area that included Waukesha, Washington, Ozaukee and Milwaukee counties, noting that employment trends in this four-county area tend to pull the Wisconsin numbers down. He said this is partly due to the inclusion of Milwaukee County, which has some issues and is also the epicenter of manufacturing in the state. He added that if this four-county area is removed from Wisconsin's employment-trend data, employment changes in the balance of Wisconsin move exactly with national trends.

Dr. Berry continued with another slide, showing job growth by Wisconsin counties from 2001 through 2012, with the state divided into six regions. Two regions in the state, western Wisconsin and south-central Wisconsin (which includes Madison) had employment growth of between 5 and7 percent during this time period, which included two recessions. South-central Wisconsin had the fastest employment growth, despite losing the most manufacturing jobs, on a percentage basis, in Wisconsin. Dr. Berry also noted that during this time period, western Wisconsin stayed about even in terms of manufacturing jobs, but the strength of the regions is its employment diversity, which includes health care, agriculture, manufacturing, education, etc. The two areas of the state with the biggest job losses were the southeast and the northern regions of Wisconsin. The central and northeast regions of Wisconsin held their own, growing slightly or declining slightly.

Wisconsin Demography

Dr. Berry turned to the issue of Wisconsin's demography, focusing on the economic context of population changes. He noted that the baby boom had affected everything in the U.S. for decades, including workforce trends; and as baby boomers are now exiting the workforce, more people are needed to replace them. He said this was not a new issue, pointing to a 2004 study of the Wisconsin Taxpayers Alliance and a 2009 report from the state Department of

Workforce Development, both of which highlighted the state's changing demographics and the challenges this will create for the state's economy.

He said that population trends do have an effect on the economy because the economy grows as the population grows, with new workers forming households and increasing consumer demand. He explained that the baby boom generation grew out of young, educated veterans entering the workforce, getting married and forming households; that massive household formation led to consumer demand for everything from cars to clothing. As baby boomers moved through the pipeline, schools and universities had to grow, and educated baby boomers began to innovate and take technology into the workforce, creating new firms which led to more jobs.

Referring to another slide illustrating the relationship between job growth and population growth by state between 1980 and 2011, Dr. Berry explained that states with a fast-growing, working-age population had greater job growth, and Wisconsin was near the bottom in both population and job grown in comparison to other states. He used another slide illustrating the cumulative growth in Wisconsin's population compared to the U.S. population, from 1950 through 2010. Starting in the late 1970s, the trend line for the state and the nation started to depart, with Wisconsin lagging behind, due to a double-dip, back-to-back recession during which Wisconsin lost one-seventh of its manufacturing jobs and 100,000 people left the state. He added that people leaving the state at the time had long-range implications, and Wisconsin's population growth after that was flatter in comparison to the U.S. because mothers and daughters were included in the people who left the state.

He said that the state's population growth rate resumed during the 1990s as the state imported people, but has since slowed again, which is why there is a bit of a drag on the Wisconsin economy.

Dr. Berry reiterated that baby boomers' moving through the workforce is only one-half of the problem facing Wisconsin. The other half of the problem is that the population of school-age children has been flattening for a long time, and school districts across the state now have declining school enrollments. He pointed to a slide illustrating Wisconsin's public school enrollments since 1985, which have been flattening or declining since 1997. The result is that Wisconsin now has fewer people entering the workforce.

Dr. Berry referred to another slide illustrating the state's population growth starting in the 1950s and projected through 2040, noting that the forecast suggests that Wisconsin's slow population growth will continue to 2040. He said that while the population of the state will continue to grow, it will not grow rapidly, and the state is heading into a slowdown period. He also pointed out that the fairly good population growth during the 1990s was because the Wisconsin economy was at more than full employment, and the state was pulling in people because the state did not have enough workers.

He also shared another slide showing actual and projected births and deaths, from 1990 through 2040, which showed a fairly flat number of births and an increasing number of deaths. He explained that the only other way to grow the population is to import people through

migration. However, state forecasts suggest that there will not be a lot of in-migration during the next 25 years.

Dr. Berry said that the senior population will continue to grow, as the population of youth, those under 18 years of age, and the early-age workforce, those 18 to 44 years of age, will continue to be flat through the year 2040. He said that there is a lot of talk about job creation, but the bottom line is that one cannot create jobs if there are no bodies to fill the jobs; and if the working-age population is going to be flat for the foreseeable future, Wisconsin is going to have some labor shortage issues.

He turned to another slide illustrating the growth or decline in the labor force cohort, those aged 25 to 64, from 2015 through 2040 for each county in Wisconsin. He noted that many Wisconsin counties are projected to lose more than 10 percent of their workforce, particularly counties in the northern, central, and southwestern part of the state; and several others are expected to lose up to 10 percent of their workforce. He pointed out there are a few counties where the workforce is going to grow by ten percent or more—Kenosha, St. Croix, Sauk, Menominee, Brown, and Calumet counties.

Implications for the Economy

Dr. Berry noted that these population trends have several implications for the economy. There will be less household formation because there will be fewer people coming out of school and having children, which will impact consumer durables and the housing market. There is going to be a real shift in consumer behavior, as seniors do not buy as much, and what they buy is different than what younger households buy. Also, with a relatively static workforce, the total amount of personal income and investment that will be "churning around in the economy" is not going to have the wind at its back unless wages grow. Wisconsin wages are about 10 to 15 percent below the national average with the wage gap widening since the late 1960s. He added that due to the smaller supply of labor, wages may increase a bit, but firms may be reluctant to locate in Wisconsin, given the labor availability.

He also noted several implications for governments, suggesting there will be greater demand for geriatric social services and nursing care, and less demand for child care and education. He also said there will be a labor shortage, which will lead to wage competition; and there will be slower sales tax growth due to the older consumer profile and the shift toward buying tax-exempt items such as food and prescription drugs. State income tax collections also will be impacted, as there will be a flat labor force, and a greater share of the tax base will be exempt. Local property taxes also will be affected as older people with somewhat limited incomes tend to be pocketbook-conscious as they get older and possibly unfriendly to revenue-limit referenda for schools, or levy-limit referenda for counties and municipalities.

Implications for Education

Dr. Berry also highlighted the implications for education, noting that declining enrollments will certainly have revenue implications, particularly in smaller, rural, declining-enrollment school districts; this is already occurring. There also will be potential turf battles for educational establishments under greater fiscal pressure, with the higher education sector already

competing for a smaller pool of applicants. With fewer employees available, there will be potential staff and administrator shortages, with K-12 education in Wisconsin already having a difficult time finding school administrators. He said the higher education sector is going to be faced with increased discounting practices as schools compete for fewer students. He also noted that some UW System campuses have shown that they can benefit financially by growing their enrollment, but that results in a declining quality of the freshman class which correlates to retention issues.

He emphasized the importance of ensuring that all students graduate from high school, and that those in the higher education pipeline also graduate, as Wisconsin will need to squeeze every bit that it can out of its available population. Because the labor force is going to be somewhat small and the cost of higher education is increasing, the cost of misadvising students or not adequately preparing them, whether for a job, for technical college, or for a four-year campus, is going to have increased societal costs; Wisconsin cannot afford to waste money on people who are "sloshing around in the system" and are not on a track. He said that while this is unfortunate, because of tuition and debt loads, there are going to be real consequences from poor advising and decision making.

Possible Actions

With respect to possible actions, Dr. Berry reiterated the importance of getting everything possible from the available people. He also said that it is important to be realistic about the need for a bachelor's degree. He explained that his organization is in the process of doing some research using 800 occupational categories from the Bureau of Labor Statistics, and looking at training needs in those categories. He said that currently, approximately 19 percent of the jobs in Wisconsin require bachelor's degrees, but 26 to 27 percent of the population has a degree. Because the supply of labor is greater than the demand, it has led to a depression of wages in Wisconsin. In addition, college-educated people are trickling down into jobs that do not require a college degree, which is forcing the whole chain down and the wage structure down.

Dr. Berry suggested rethinking admissions requirements and standards, as well as retention and remediation. He also suggested that higher education has to maximize the resources available, and strategically prune and focus campus and department missions. In addition, accelerating time to degree through better preparation and advising, and rethinking requirements, majors and calendars, will help to move people out into the workforce.

Dr. Berry said that if rural Wisconsin is losing people, it is important to ensure that the internet access and bandwidth in rural Wisconsin is as big and fast as possible so that people can stay in their hometowns and work by telecommuting; however, state policy has not reflected this approach. He also suggested focusing on societal and student needs and success, rather than preserving turf or focusing on institutional needs.

Dr. Berry also suggested flexible work policies for senior people, to keep them working as long as possible, and encouraging people to teach as long as they have a passion for teaching. He also suggested identifying ways to accelerate the pathways to teaching and administration in both K-12 and higher education. Dr. Berry said that the state should focus more on recruiting the

best and the brightest people, rather than recruiting employers from another state, as the state is going to need good, talented people.

Dr. Berry concluded his remarks with three closing thoughts. He said: (1) it is interesting that Wisconsin has no statewide coordinating entity for education, which he said is neither bad nor good, but does make it harder to coordinate efforts and move quickly; (2) tax dollars for public higher education are not proportionately increasing, yet the basis for governing campuses was devised in the 1950s and 1960s, and led to merger in the 1970s, and while governors and legislators do not want to think about this issue, campuses are thinking about it; and (3) the Board of Regents should reflect its audience, or clientele, and include designations for alumni, and more students, and people who have been very generous to the campuses. As to this last point, he suggested that he sat with a number of those kinds of individuals on a private college board, and the board was more nimble, competitive, and reactive than public higher education typically has been.

- - -

PRESENTATION: REGGIE NEWSON, SECRETARY, WISCONSIN DEPARTMENT OF WORKFORCE DEVELOPMENT – OUTLOOK FOR WORKFORCE NEEDS IN KEY OCCUPATIONAL AREAS IN THE NEXT FIVE TO TEN YEARS

President Falbo thanked Dr. Berry for his presentation, which he said would provide context and foundation for the next presenter. He then introduced Secretary Reggie Newson of the Wisconsin Department of Workforce Development (DWD), who would discuss some of the significant needs, trends and projections for Wisconsin's workforce in the coming years.

Secretary Newson took the podium and greeted the Regents. He recalled that Dennis Winters, Chief Economist at DWD, had visited the Regents last March to provide a detailed presentation of labor market trends and occupational data, and said that for that reason he would not spend a lot of time going through the data. Secretary Newson said that he would talk about some of the things that DWD was currently working on -- positive pockets of innovation throughout the state at the UW System's two-year and four-year campuses and at Wisconsin's technical colleges.

Secretary Newson praised Regent Evers for his outstanding work at the K-12 level to address some of the issues that Mr. Berry had laid out, including both the demographic challenges as well as the labor participation rates. He said that as a state, Wisconsin has to do everything it can to make sure that every able-bodied individual in the state has a pathway, by providing good information to parents and guardians about career options and choices based on future demand, and by putting resources in place to incentivize the alignment.

Secretary Newson noted that the National Governors' Association (NGA) had been focusing a laser on the whole issue of talent development and human capital. He said he was thankful that President Cross and Regent Higgins had invited him to talk about this, noting that current national trends showed that the economy would need more bachelor's degree-holders,

associate's degrees to go with middle-skill-level jobs, and any postsecondary training beyond high school.

Secretary Newson said that in Wisconsin, there was a gap between current educational attainment and the NGA's projections for minimum educational requirements in 2030 in terms of the number of holders of bachelor's and associate's degrees, certificates, and mid-skill credentials. He said DWD hoped to start building some pathways and partnerships with the UW to start addressing this issue.

Secretary Newson said that he would speak about DWD's changed focus toward talent development, human capital, and moving the conversation from occupations to skills and competencies. He explained that in the past the U.S. Department of Labor provided states with a grant that went through the state labor department, which would distribute it out to regional workforce investment boards throughout the state of Wisconsin. However these grants were very prescriptive, with narrow definitions as to how the dollars should be allocated and spent. Primarily, they were meant for upgrading skills of individuals that have barriers to employment. Secretary Newson emphasized that these dollars were not nimble or flexible, and certainly were not able to fit into DWD's demand-driven model, where the agency works with employers to determine what they need for skills and competencies and then builds innovative programming around those requisites.

Because the department had changed its focus to talent development, Secretary Newson was thankful that the Governor and the legislature had invested \$50 million in DWD through the Wisconsin Fast Forward Effort. He explained that this would allow DWD to be able to build out demand-driven programming that is nimble and flexible, and to tailor pathway innovation around employer-specific needs.

Secretary Newson said that in the past, DWD's service providers and staff would have given a dual answer to the question, "Who is your customer?" He said the answer would have been employers and job-seekers. However, DWD's customers now are the employers, the entrepreneurs and the businesses of the state of Wisconsin. Secretary Newson said DWD would do everything it could to meet their talent needs. However, DWD's "clients" are the job-seekers, whether they are a dislocated worker, an individual receiving unemployment insurance, or a traditional job-seeker.

Secretary Newson described DWD's efforts to ensure it was focusing on talent development for its customers, with a close focus on economic development through Fast Forward, working with the WEDC, chambers of commerce, economic development corporations, and others. The goal, he said, was to attract new companies to Wisconsin and also convince them to expand.

Secretary Newson said that there was an opportunity going forward to partner with the University of Wisconsin related to data and analysis. He explained that his department would be building out a new market information system, which would include robust, real-time jobs information from regions throughout the state of Wisconsin. This information would be provided to employers to help them make informed decisions about their businesses, but would also be shared with DWD's partners in K-12, the UW System and the technical colleges.

Secretary Newson noted that DWD had an outstanding partnership with the Department of Public Instruction (DPI) related to academic and career plans. By 2018 every 5th and 6th grader in the state of Wisconsin would have "an intervention," during which they receive information about future demand, labor markets, wages, job openings and opportunities. Also available to students will be a plan of courses and curricula, internships, co-ops and apprenticeships to allow students to be work-ready when they graduate from high school.

Secretary Newson shared some high-level strategic drivers related to DWD's efforts: (1) a focus on career and technical education programming and training; (2) alignment of workforce economic development and pre- and post-secondary education around the specific demand needs of businesses and entrepreneurs in Wisconsin; and (3) a goal of incentivizing innovative behavior throughout the state and providing resources to replicate and expand successful strategies.

Secretary Newson explained that DWD wanted to collaborate and build a consortium among service providers in the state of Wisconsin and deliver training to the economic developers, whether that is WEDC, the African American Chamber of Commerce, the Grow Regions, county economic development groups, trade associations, businesses or others. Secretary Newson said that he believed DWD's value is to be the convener, the facilitator and the collaborator of economic workforce and education in the state of Wisconsin around specific industries with high demand.

As an example, Secretary Newson mentioned the collaboration and partnership between himself, President Morna Foy of the Wisconsin Technical College System, and Wisconsin Economic Development Corporation (WEDC) Secretary Reed Hall to create the Wisconsin Fast Forward program. The program processes regional information and provides incentivized grant opportunities in industries and clusters to ensure companies have resources to develop talent.

Secretary Newson discussed the convening of the Council on Workforce Investment (CWI) with the WEDC Executive Board. WEDC has put together a map of how to build the state's economy based around 37 economic drivers. CWI took that information and for the last nine months has been developing the strategic framework to make sure the projects, plans and initiatives are validated and informed. Secretary Newson mentioned that Regent Evers, representing DPI, and David Brukardt, representing WEDC and the UW System, had been helpful in developing a set of recommendations around talent development for CWI.

Secretary Newson said that DWD needed to be engaged with high schools and middle schools to prepare students with the skills and competencies to go right into the workforce, but also to provide options. Describing significant new funding for dual enrollment and other opportunities, Secretary Newson shared how in 2013-14 the Waukesha County School District partnered with the local technical college so that about 100 students could participate in a program related to information technology, manufacturing and health care. The students left the high school campus and took classes at the technical college. After graduating, Secretary Newson said, the students had their high school diploma in hand, as well as a pocketful of technical college credits that could transfer into a one- or two-year degree, work experience from interning, and a credential built around skills and competencies. Secretary Newson showed a video of students from the New Holstein school district describing their experiences with the Certified Nursing Assistant (CNA) project offered by the school.

Secretary Newson said that the students participating in the CAN project planned different pathways: some were thinking about going to a two-year school and then transferring to a four-year campus; some were only going to do a two-year program, either at a technical school or a UW campus; and some were going to go right into the workforce. He emphasized that with this program the employers had to make commitments to offer internships or co-ops so the students could get work-based learning and paid work experience.

He said that employers like these enterprises because they have the opportunity to onboard the young people after they graduate from high school, already possessing the necessary credentials and certification. He noted that employers are also often very interested supporting the future education of students who continue to a two- or four-year school.

Secretary Newson said that DWD was excited about partnering with the UW System to do something very similar to the Blueprint for Prosperity program that DWD worked on with the technical colleges. He explained that about \$27 million of \$35 million allocated by the Governor and legislature went to the technical colleges throughout the state. These dollars went to curriculum development and expansion of programming to meet regional demand; DWD validated requests, reviewing market demand in the various regions.

Secretary Newson introduced a second video, narrated by one of the welding instructors at Madison College, which received a Blueprint for Prosperity Grant. The instructor described how the Wisconsin economy was facing unprecedented pressure, which was being felt throughout all of the college's programs. The instructor said that grants like Blueprint for Prosperity helped them increase their program capacity.

Secretary Newson said that these examples of grants and programs awarded to technical colleges were aimed to meet high-demand areas for employer need, like welding, construction, or manufacturing. However, this same model could be tweaked and innovated to be used for high-demand fields for the baccalaureate degree, as well.

Secretary Newson said he wanted to discuss some ideas he had for similar partnerships with the UW System, stating that he looked forward to working with President Cross, the Regents and the chancellors, who had relevant information about industry projects and initiatives at their fingertips. He reiterated the need for a common language and common outcomes between education and economic development leaders.

He shared the story of a company called Invisible Connect, which had recently relocated to Wisconsin; the owner had been a product of the Silicon Valley in California. This company has a need for software developers in an IT platform. The company's problem was not in finding enough bachelor's degree holders in IT for software development, but in finding employees with the unique, specialized credential and certification on top of the bachelor's degree, required for the company's work.

WEDC had been working to recruit this company to the Eau Claire area. DWD and WEDC were able to convince the owner of Invisible Connect that the Wisconsin Fast Forward program could be used in partnership with the Chippewa Valley Technical College, UW-Stout and UW-Eau Claire to build out a very specialized credential on top of the BA or BS. As a result, this company will bring to Wisconsin 15 initial and 81 total jobs over three years, all

paying between \$16 and \$60 dollars an hour. Secretary Newson said that companies follow where they can develop talent, and talent can be developed if a system is in place.

Another example Secretary Newson gave was from the continuing education program. DWD was able to fund a grant for W.S. Darley & Co. so that both existing workers and new hires could get sigma training so the company could compete globally.

Lastly, Secretary Newson credited UW-Platteville and UW-Stout for working to deliver part of the licensure needed to get CTE instruction in place, noting that the CTE program had been having difficulty finding instructors to deliver the curriculum at high schools and technical colleges. He also said he was proud that Gateway Technical College, UW-Parkside and UW-Milwaukee had come together to meet a specific need of Snap-On Inc., developing a partnership as part of a technology pathways program.

He concluded his presentation by saying that these partnerships were happening in pockets throughout the state, but scalability and portability were something to be developed.

- - -

DISCUSSION WITH DR. BERRY AND SECRETARY NEWSON

At the conclusion of Secretary Newson's presentation, President Falbo invited him and Dr. Berry join the Regents at the table to answer questions and engage in a discussion. President Falbo called upon Regent Mueller, who thanked the presenters and said that she was confused, as they referenced both the needs of a knowledge economy and the needs of a service-oriented economy to take care of aging baby boomers. She asked them to clarify which should be the focus in the next several years.

Dr. Berry said that both were needed, and he did not understand the confusion. Regent Mueller said that it is hard for the UW System to make sense of where to invest time and resources because there are needs in both areas. She said the cynics talk about a Walmart economy, with the state moving toward lower-wage positions in the future, while optimists talk about the knowledge-based economy and the need for many more STEM degrees. She said that the UW System is bombarded with both messages in hearing about the demographics and initiatives, and the legislature chose to invest \$50 million in the technical schools rather than the UW System. She indicated that she was grappling with what next steps Regents should be considering in the next ten years.

Secretary Newson expressed agreement about the need to focus on both the needs of knowledge economy and the service-oriented economy. In the next 15 to 20 years, there is going to be a significant need to replace or backfill many of the manufacturing jobs in Wisconsin, as well as jobs in other industries such as information technology and other service entities. He said that there will be many middle-skilled jobs in Wisconsin that require some post-secondary training but not necessarily a four-year college degree, as well as new jobs and replacement jobs that will need to be filled by degree holders. He emphasized the importance of career pathways that include all types of options that include both the technical schools and the UW institutions.

He said that the Department of Workforce Development wants to look at the career pathway models and partner with UW institutions to build those pathways.

Regent Mueller thanked both speakers for pointing out where the needs will be. She also said it is helpful to think about what the UW System would do if it were given \$50 million in the next two years.

Dr. Berry said that if the desire is to create jobs in Wisconsin, it is important to recognize the strong correlation between employment, new-firm creation, and start-up and growth trajectory types of firms, and the state does not do very well in that area. He said that although manufacturing is Wisconsin's bread and butter, it is not going to be a great creator of jobs. He said that in the context of higher education, it is necessary to do everything possible to encourage risk-taking and innovation.

Regent Walsh thanked the presenters for answering Regent Mueller's questions, saying that he, too, was confused by the information presented. He then continued by sharing that his biggest concern was that at some point everything would be measured against jobs. He said that of course there needs to be a focus on the economy, and jobs are important, but the UW System is a great educational system; and what is truly important is knowledge for knowledge's sake. He noted that the UW System's sources of revenue are fairly evenly split between the state of Wisconsin, gifts and grants, tuition, and the federal government. He said he was concerned about getting hung up on some metrics that require the UW System to prove that there is a job, whereas the focus should be on knowledge. The greatness of the UW System is in creating fertile minds for the kinds of creative thoughts that led Judy Faulkner to create Epic. He said that what is important is supporting an educational system, and it is important to remind people that it is not all about jobs; it is about people!

Secretary Newson said that he agreed with Regent Walsh, and said that DWD is focused on changing the conversation with workforce partners to focus on skills and competencies, which are a corollary to knowledge, rather than focusing on occupations and training for occupations. He said that the UW System offers training for knowledge, but also prepares people with skills and competencies, critical-thinking skills, and problem-solving skills, and the ability to apply these skill sets in the marketplace. He said that if a person is trained with a skill set, they have the flexibility to move from one position to another, and more people in the market with skills and competencies means more jobs.

Dr. Berry commented that Regent Walsh made his point, in that jobs are not the be-all and end-all; what is driving employment creation around the country are new start-up enterprises which are generated by people who have a spark of an idea that is coming from their knowledge. He said that Epic would not exist if it were not for the University of Wisconsin-Madison's Computer Science Department, and that needs to be replicated. He said that one of the biggest problems is the focus on 19th-century disciplines, rather than enabling and encouraging millennials, who are incredibly entrepreneurial, to seize the brass ring and go for it. He said that Wisconsin has a culture that is very risk averse, but UW institutions can give young people a knowledge base and a spark, and encourage them to be risk takers and entrepreneurs.

Regent Evers acknowledged DWD's efforts to collaborate. He said that from his perspective, the issue had never been about jobs but instead about the "on-ramps" and "off-ramps" that need to exist. Students are going to change their minds, and it is important that the "off-ramps" do not lead to dead-ends, and instead lead to new skills and new places for them.

Regent Petersen said he wanted to echo some of Regent Evers' comments that relate to the Department of Workforce Development. He said that within the last 24 months, the department had changed its perspective, to one of being more of a catalyst for success; DWD's focus on being demand driven had been useful to the Wisconsin Technical College System.

Regent Petersen continued by noting that there are challenges with the Blueprint for Prosperity grants, because they are one-time dollars and not sustainable. He noted some comments from policymakers who were calling for a continued tuition freeze and for the UW System to focus on students, and who believed that research should be focused on economic development rather than social issues; he acknowledged that the UW System's budget request would be challenged. He suggested that Regents, chancellors, and the UW System needed to think about their partners at DWD and the Blueprint for Prosperity grants in terms of pathways, and as a potential supplement to the current budget environment.

Regent Petersen said that while the one-time grants are not ideal, partnerships in areas that will drive the regional economy are worth considering. He said that the grants should not be thought of as the be-all and end-all, because there is not enough money, and it is not the right approach for the UW System to take as a knowledge institution. However, the grants should be thought of as another tool in the toolbox. He suggested that the REDI Committee study this further.

President Cross said that he had a series of questions for the panelists, and he joked that he wanted a yes or no answer from them. He said that his first question was related to what Secretary Newson said about the immediate needs of the state, and while he appreciated and valued that, one of the things that the UW System does is focus on a much longer spectrum. He observed that the flattening of the workforce that Dr. Berry described had been ignored for at least fifteen years.

President Cross then said, if that is true, which he believes it is, and the state wants to alter that and impact that, he heard two possible strategies: (1) do a better job of getting students into and through the pipeline and connected to employers who need them; and (2) have fewer failures or holes in that pipeline. He asked if that was a fair statement, to which Dr. Berry again responded affirmatively.

President Cross reminded everyone that part of what the UW System had done, even though it received no state funding for it, was to take \$22.5 million from its fund balances to spawn new businesses and to actually encourage that effort on the UW campuses. He also noted that this effort was included in the UW System's biennial budget request for \$95 million. President Cross said while it appears to be self-evident, he asked the presenters if it is true that research institutions generate new knowledge, which eventually generates jobs; the presenters responded affirmatively.

President Cross then asked why universities have so much difficulty convincing governments that they are the answer to economic problems.

Secretary Newson offered a possible answer to President Cross's question by referencing a recent nationwide study of 2012 graduates that found that one-third of the graduates of the four-year institutions felt dissatisfied with their degree, and another one-fourth felt they were over-qualified for available jobs in the labor market. He said there was a disconnect between the students and the degrees they earned, and policymakers may be responding to this. He suggested that students, parents and guardians be informed about the labor market and the demand. He said that, based on the data he had seen, most of the available jobs do not require a four-year degree, but do require credentialing, training and post-secondary education beyond high school. He added that for the portion of the labor market jobs that do require a four-year degree, there is another disconnect, as employers want degree holders, but they also want them to have practical, applied skill sets and knowledge. He suggested that there may be an opportunity to leverage Fast Forward grants to enhance the applied skills that graduates need.

Dr. Berry said that because Chancellor Cross was actually asking a political question, he would provide a political answer. He said that in state budgeting situations, Medicaid is the driver, and that is very much the case in Wisconsin. He added that K-12 education is also a driver, and if one looks at the current biennial budget they will see that all the new money went to Medicaid or to some aspect of K-12 education. He explained that the higher education research shows that virtually every state uses higher education as an escape hatch during recessionary times, because states know that higher education can increase tuition.

Dr. Berry said that he believes it is a great irony that state government created the university system in order to eliminate duplication. However, what has happened from a political standpoint, and what state decision makers now see, is a university system – a nameless, faceless, student-less entity, which was created to do certain thing, and did. He said that if there were no UW System, and each campus had its own board of directors, the whole political dynamic would be different in the legislature; and each legislator would be fighting for pork.

President Cross responded by noting that he was in Michigan for 14 years, where there is no system of higher education; the competition for pork was palpable, and institutions with powerful legislative representation benefited greatly.

President Cross continued by saying that Secretary Newson's materials reference the need for bachelor's degrees in certain disciplines: registered nurses, software developers, application developers, medical and health services managers, computer systems analysts, accountants, and mechanical engineering. He said that he believed that if the state only filled its welding positions, and its positions that do not require bachelor's degrees or professional degrees, and the "job-creating" jobs such as engineers who design the products that hire the welders and machinists are not filled, the economy would be headed for a downward spiral. When he asked if Secretary Newson agreed with him, Secretary Newson responded affirmatively.

President Cross continued by observing that the university has a responsibility beyond job alignment. Addressing the topic of liberal arts degrees, he said that he values philosophy and has two sons who teach philosophy. He said that it is a foundational, important discipline in terms of critical thinking, logical analysis, writing and communication; so much of the liberal arts are fundamental to the values and the cultures of this state. He said that right now the state has a shortage of labor for some critically important job-creating, high-impact-talent jobs; and if the state cannot fill those jobs, the demand for welders and machinists will eventually go down. When he asked Secretary Newson if that was a fair statement, Secretary Newson replied affirmatively and said that both types of jobs are needed.

Secretary Newson also emphasized that it is important for the state to align itself based on demand, and create pathways and systems across the board. He said that he was optimistic because Wisconsin has the infrastructure, the resources, and the assets in place. The state has some of the best K-12 education in the country, the technical colleges are lauded by other states, and Wisconsin has some of the finest two- and four-year UW institution and private institutions. He said that while the assets are in place, the state must ensure that all of these entities are working together, and that every able-bodied person is engaged in the labor market.

Dr. Berry added that it is not enough to have the engineers and others to maintain firms. The state also needs to ensure that there are individuals with critical thinking skills, or social science graduates who have acquired some business skills. He added that the political realm generally does not understand how employment is created and where the growth sectors are in the state. He suggested that some research brought to bear would help in pointing out that it is the entrepreneurs that are important.

President Falbo asserted that the UW System does produce the critical and creative thinking that is needed in the economy. He also expressed his frustration that the UW System had not been more involved in some of Secretary Newson's efforts around the state, and acknowledged that Secretary Newson was probably also frustrated by that. In response, Secretary Newson said that President Cross had been thoughtful in reaching out and engaging his department, and more collaboration between DWD and the UW System would be forthcoming.

President Cross said he wanted to follow up with a comment on the issue of creativity and something Regents Walsh and Petersen mentioned earlier. He said he wanted to share a story that would illustrate the challenge for Regents, chancellors, and educators. He explained that State Assembly Speaker Robin Vos had said the University needs to focus on teaching and research that helps the state's economy, and not researching "the ancient mating habits of whatever." President Cross said it is often hard for legislators who are disconnected from research to understand what is being pursued. He recalled having to defend a faculty member who was studying the gut bacteria in a particular beetle in Costa Rica. He explained that this particular beetle, with its gut bacteria, had the most efficient breakdown capability of cellulose, and the concept behind the research was to synthesize that bacteria in such a way that it could be used for other purposes. He emphasized the importance of connecting research to its larger purpose, and suggested that maybe studying the ancient mating habits of whatever could lead to a major find. He added that research that comes out of the university is so important to the

entrepreneurism that drives the economy. Dr. Berry agreed and said that one does not know which good idea is going to be a great idea.

Regent Vásquez shared that he was recently at a panel presentation that included an angel investor who indicated that the state of Wisconsin seems to be conservative when it comes to venture investments, and this is not healthy for the state, as it means the state is conservative in investing in entrepreneurship. He said that it was clear from the presentations that it is important to have both the talent pool and businesses that are ready to hire or want to locate in Wisconsin. He asked the presenters if what this angel investor was implying about the state of Wisconsin was also reflected in the state's legislative policy relative to investing into entrepreneurship.

Dr. Berry agreed that Wisconsin is conservative when it comes to venture investing, noting that it is a cultural thing; Wisconsin does not champion success, and is too hard on people that fail. He said the university system is almost uniquely positioned to change that culture by the way its students get energized about ideas and research. He said the university should not be figuring out how to fill today's jobs; it should be figuring out how to spawn tomorrow's quirky thinkers, some of whom were going to succeed and some of whom were going to fail, but all of whom were provided with the foundation of how to think, problem solve, innovate, create and brainstorm.

Regent Walsh clarified his earlier comment, noting that the UW System has to be concerned about job development because the UW is part of the solution, but the university has a bigger mission than just that. He said it will not do the university any good if the university is told what to teach and what to do based on a metric that represents a small piece of the overall picture. He said it is fascinating to him that UW-Madison has more money coming in from gifts and grants from people proud of a great institution. Their pride is not because of the football team; it is because of the knowledge that is produced—knowledge for knowledge's sake. He shared that he is involved in a number of research projects that mainly have to do with epithelial cells and ganglion cells and that may lead to a Nobel Prize. The projects will make a difference in the world; that is what people who give to the university think about. This, and maturing young people, is what the UW institutions are about; this is much more than economic development.

Regent Hall said she looked forward to the collaboration between the Regents, UW System and DWD. She then noted that the ratio of high school students to guidance counselors was 400 to 1. She suggested looking at how to increase the numbers of advisors, educators, and guidance counselors; partnering with more employers to continue the conversation that starts in elementary school; and strengthening the conversation in middle schools and high schools to connect K-12 students with post-secondary education. Dr. Berry agreed and also stressed the importance of advising in middle school and high school.

Addressing Dr. Berry, Chancellor Gow asked if it would be beneficial to enable UW-Madison to enroll more out-of-state students. Mr. Berry said that it is well known that having more out-of-state students enrolled in the university mean more support for in-state students. He suggested there would still be space for in-state students within the UW System, because high school enrollments are dropping and birth rates are not going to change very much. He said that

it would be important for people to understand that if a Wisconsin student wants to go to a UW institution, there will be a seat for them.

Closing the discussion, President Falbo thanked the two presenters.

- - -

The Board recessed for lunch at 12:55 p.m. and reconvened at 1:40 p.m.

- - -

BUSINESS LEADERS' PANEL DISCUSSION: BUSINESS PERSPECTIVES ON TALENTS NEEDED IN THE WORKFORCE, NOW AND IN THE NEXT FIVE TO TEN YEARS, AND THE ROLE OF THE UW

President Falbo announced that the afternoon session would have two panel discussions focusing on what Wisconsin employers need from the UW System to help them be more competitive and how the UW is responding.

For the first panel, President Falbo welcomed three members of the Wisconsin business community, providing the following biographical information:

- Todd Battle is President of the Kenosha Area Business Alliance (KABA), a position he has held since 2004. KABA is a public-private partnership that serves Kenosha County's Economic Development Organization. Mr. Battle is responsible for leading the organization's economic and community development initiatives, which focus on business retention, expansion and attraction, development financing programs and talent development. He previously held leadership positions with economic development organizations in Iron Mountain and Muskegon, Michigan.
- Kathi Seifert is currently President and Owner of Catapult, LLC, a business management consulting group based in Neenah. She retired as Executive Vice President for the Kimberly Clark Corporation after 26 years with the company, where she led the company's personal care business and sales organizations. She is the member of several boards of directors, including Eli Lily & Company; Revlon Consumer Products Corporation; the Community Foundation for the Fox Valley Region; and New North Inc., an economic development collaboration for northeastern Wisconsin.
- Mark Tyler is founder and President of OEM Fabricators, Inc., a leading custom metal fabrication company based in Woodville, Wisconsin. Mr. Tyler is the former President of the Wisconsin Technical College System Board, on which he still serves, and a former member of the University of Wisconsin Board of Regents. He also is a member of the Governor's Council on Workforce Investment and a board member with Wisconsin Manufacturers and Commerce and the Wisconsin Technology Council.

President Falbo said that each panelist would have the opportunity to speak before opening the floor for discussion and questions.

Todd Battle, President, Kenosha Area Business Alliance

Todd Battle spoke first, saying that he would like to take a few moments to share a perspective from the trenches in terms of economic development. He said that his organization is chiefly responsible for economic development activity in the Kenosha County area, putting it in a position to work closely with the workforce development system: communities, employers, and new and expanding companies that may be looking to come into the state of Wisconsin. Mr. Battle said that some of the more recognizable brand name investors include companies like Snap-On, Jockey, S.C. Johnson, Abbott Laboratories, and U-Line. Some of the Kenosha Area Business Alliance's work also goes into serving small- and medium-sized companies that might have fewer than 50 employees and \$1 to 5 million in revenue.

The Alliance's activity runs the gamut, he said, but it works on helping companies invest in the community, grow, and continue to contribute. Mr. Battle said that he wanted to emphasize that workforce and talent development was consistently the number one consideration impacting a business decision with respect to expansion or location. It is an issue in every conversation his organization has with a company that is considering a long-term investment in the community or region.

Mr. Battle said that there are some immediate concerns that go into an economic development situation, but a company is always analyzing its reaction to the community, the region, and the state. Mr. Battle said that he believed that the factor having the greatest influence on that is the availability of talent. In the Kenosha area in the last several years, the experience has been one of a strengthening economy with a significant industrial recovery and, more recently, a phenomenal industrial development boom. His organization had announced about a dozen projects in the last 18 to 24 months that would account for close to \$800 million of new capital investment and close to 4,000 jobs.

Noting that it had seen a fair amount of activity, Mr. Battle believed that his region and community were favorably positioned. The concern of some of the existing employers and leading companies in the region had been whether the talent pipeline will keep up with this type of activity and investment as industry continues to grow and the economy rebounds.

Mr. Battle said that in the Kenosha area his organization would work closely with the technical college system, the workforce development system, and the university system. He said that he believed that the university has a role to play in the talent pipeline, especially as a magnet for bringing more people into the community and the state, particularly in the far corner of southeast Wisconsin. Some strategies that have been particularly effective have been the increased role of internships to connect students in the university system, and more employment opportunities to keep students connected to the community and the business community.

Mr. Battle said that his organization is also paying attention to some of the projected demographic information for Wisconsin. He said that the statistics regarding the state's ability to grow its population and labor force do not look particularly rosy, which causes concern. This is a key issue that merits some attention and discussion.

Mr. Battle stated that he hoped that by participating in the discussion he could shed some light on the perspectives of the Kenosha Area Business Alliance as a local public-private economic development organization.

Kathi Seifert, Retired Executive Vice President, Kimberly-Clark, & Co-Chair, New North

Kathi Seifert spoke next, saying that she was thrilled to be invited because she felt that the more business and educators get together, the better off the whole state will be. Ms. Seifert said that she had the pleasure of co-chairing New North, an 18-county regional collaboration in northeastern Wisconsin. Posing and then answering the question of why the 18 counties, Ms. Seifert said that there is a strong commuting pattern between all the counties and the cities in northeastern Wisconsin. Also, the large companies based in that area draw talent from all over the region. She explained that these companies not only share talent, they also share natural resources, values, and ideas about what should be done about employment.

About one-fourth of the employment in northeastern Wisconsin is manufacturing, and Ms. Seifert said that is a huge focus of New North. She then shared some information about New North, describing it as a collaboration of business leaders, educators, chambers of commerce, workforce development professionals, and others who work together collectively to focus on job growth.

Ms. Seifert explained that there are three major focus areas: (1) driving business clusters and helping entrepreneurs; (2) attracting, developing and retaining talent to help the businesses grow; and (3) considering how to brand northeastern Wisconsin so that people want to come there to work and so that companies will want to move their headquarters or supply chains to the region.

Focusing on business clusters, Ms. Seifert said that manufacturing is the backbone of northeastern Wisconsin, and it has to be protected. She said that she believed that New North had done a good job of that, having been around for about ten years in a collaborative effort to withstand the challenges of the recession. She said that the region was currently doing well from an employment standpoint, tracking better than the state of Wisconsin and the nation.

Ms. Seifert said that what is needed to support the manufacturers is the recruitment and development of different kinds of talent: welders, engineers, etc. One of the ways that Ms. Seifert's organization was able to increase the number of welders in the region was by arranging for the technical colleges to be much more flexible by opening up their schedules to include weekends and nights. There were 24-hour welding classes running in different areas of the state to help with that need.

Noting that there was a large Navy contract in Marinette, Ms. Seifert added that one of the technical colleges actually created a satellite operation to help train welders.

With respect to what the UW System has done in the region, Ms. Seifert said that she had to credit New Era, the collaboration between the UW System and all of the technical colleges in northeastern Wisconsin, which was begun through the efforts of UW-Oshkosh Chancellor Rick

Wells 11 years earlier. She explained that the partnership led to conversations about how higher education could better meet the needs of the business community.

Ms. Seifert recalled that there was also a Bachelor of Applied Science degree that allowed a student to do two years at the technical college and two years at a UW System institution to earn the four-year degree, a program which has been popular. The articulation agreements that the UW System has had with the technical colleges have been important to the region, and Ms. Seifert said that she appreciated the flexibility it took to help make that happen.

Similarly, Ms. Seifert noted that the region now has an engineering program, which she said was desperately needed. Because of the way the UW System had worked together with the technical colleges on manufacturing degrees, the region now has mechanical, electrical, and technical degrees along with environmental engineering, as well as additional engineering degree opportunities at UW-Fox Valley. Ms. Seifert said that the engineering programs had been very much appreciated by the business community and had helped the people in the region continue to advance their curriculum and go on to hold higher-level positions within organizations.

Ms. Seifert noted that New North is working on an IT cluster and IT initiatives, which she said would be relevant to what the UW System would be doing in the future. She noted that IT is a clear opportunity, but it has been identified at the state level as having an approaching gap in skilled workers. This is an issue that everyone will have to work together to address.

Ms. Seifert described the importance of IT as a cross-sector cluster. All industries need IT, and IT requires not only putting data into the system, but good analysts and problem-solvers to help forecast the needs of the future, regardless of the industry.

While in the past analysis was done with numbers, the volume of data now necessitates strong communication between IT people and CEOs. The importance of communication suggests that psychology and communication majors also need support. Ms. Seifert emphasized the need by companies in northeastern Wisconsin for this kind of talent. She said that right now New North is beginning the same process used to address the engineering talent shortage, with a survey going out to business people throughout northeastern Wisconsin. The organization is doing focus groups and qualitative and quantitative research with business leaders – from both big businesses and small start-up companies – to try to understand their needs.

Students in middle and high schools are also being contacted to find out if they want to pursue an IT career, and to find out why not if the answer is no. This presents an opportunity to visually show students what these careers could be like.

Ms. Seifert said that at the beginning of the new year a group of 30 to 40 people would hear that information and would come together every other month to find out the status. From there, the people at New Era would look at how to build a stronger curriculum for the future, and see if other pilot start-ups could be implemented in northeastern Wisconsin to help accelerate this effort. Noting that it was going to take a while to get some of the high school kids to be job ready, Ms. Seifert emphasized that they could not recruit that talent fast enough.

Ms. Seifert shared that at New North's last meeting the group did a quick survey of the companies in attendance. She noted that because the meeting was held on an odd date there was

low attendance, with only six big companies present. However, those six companies identified a need for 240 people in IT, showing that the demand is there.

Ms. Seifert concluded by saying that she believed the UW System was already doing a terrific job, and she credited the schools in her region: UW-Green Bay and UW-Oshkosh. She pointed to the way UW-Oshkosh had started up an insurance minor because the region had many insurance companies as an example of how the UW System can be responsive to the region's needs. She asked that the UW System continue to be responsive and move as quickly as possible. Ms. Seifert said she looked forward to questions from the Regents during the later discussion.

Mark Tyler, Founder and President of OEM Fabricators, Inc.

Regent Emeritus Mark Tyler, President of OEM Fabricators, was the next to speak. He expressed his gratitude for the opportunity to speak about the need for engineers. Referring to a handout, Mr. Tyler said that it was not only Wisconsin, but the entire U.S. that would be facing problems with its future ability to compete with China and other countries.

Mr. Tyler briefly discussed his perspective as a manufacturer in a very rural area. He explained that OEM Fabricators is a contract manufacturer with four plants and just under 500 employees. The company does hard-core, heavy manufacturing for markets such as well services, oil and gas transportation, mining, and construction equipment. Its customers include many Wisconsin companies, but also many North American and international companies.

To explain why northwest Wisconsin is unique, Mr. Tyler said that the demographics in the region were worse than for the state as a whole. In 2011 there were more 65 year olds leaving the workforce than 18 year olds entering the workforce in northwest Wisconsin. Unfortunately, he said, Wisconsin as a whole will make that same transition in about 2017.

Northwestern Wisconsin is very rural, and many residents either live in the country or in towns of 1,000 to 3,000 people. Mr. Tyler explained that this gives residents a different orientation and drives their decisions in different ways. As an example he shared the story of OEM Fabricators' human resources manager, who grew up in Hudson. She ruled out UW-River Falls because it was not far enough away from home; instead she went to UW-Eau Claire, 65 miles away. Mr. Tyler said that when northwestern students think about "the big city," they do not think about Milwaukee, Madison or the Twin Cities. Instead, they think of Eau Claire and Wausau, which seem like big cities in their frame of reference.

Referring to studies that he said indicated that 51 miles is the average distance that people are willing to travel for higher education, Mr. Tyler stated that 51 miles would not get residents of northwestern Wisconsin into some of the programs that the region needs. Instead, residents will choose a program that is available. People in the region are not used to having a lot of choices, he said, because of the small towns and rural environments they grew up in. Rather than saying, "I'm going to be a mechanical engineer," and then looking at schools around the state or Midwest, people instead look at the program array that is available nearby and choose from that.

Mr. Tyler said that the challenge is if the program array is not there, people cannot make a choice. The good thing is that once the choice is made, their bias is to stay close to home. Mr. Tyler said that was why the region did not have the brain drain seen in larger cities.

Reflecting upon the alma maters of OEM Fabricator's senior management, Mr. Tyler said that he was the only person who did not go to the University of Wisconsin; the other 12 people went through the UW System. Of those people, only two left the area, one to UW-Madison and one to UW-Oshkosh. The rest all graduated from UW-Stout, UW-Eau Claire or UW-River Falls. Mr. Tyler said that it was probably important to note that a number of the UW-Stout graduates actually started at UW-River Falls, completing the pre-engineering program closer to home before transferring into a program at UW-Stout.

Emphasizing that the institutions in the region do an exceptional job in management, general business, leadership and a whole array of other areas, Mr. Tyler said that the regional program array must include high-impact, high-demand talent development areas, saying, "If we do not make engineers in northwest Wisconsin, we will not have engineers in northwest Wisconsin."

Mr. Tyler noted that St. Croix County, where he lived and where his company is based, was projected to be the fastest growing county in the state, yet lacked some of the foundational educational resources to support the economy. Some of the most severe shortages in the area are engineering, information technology, advanced manufacturing and health care. Mr. Tyler said that a wise man recently told him that it is critical that the university address the jobs that create jobs. He said that he recognized the university is much more than jobs – it is about knowledge building and research – but many who have earned their degrees are still without jobs.

He noted that the UW System's studies had demonstrated the need for engineering, and the issue now was whether the university would address that need. Mr. Tyler stated that the UW System must address the need on a regional basis. Businesses in the northwest were desperate for mechanical, electrical, materials, chemical, agricultural and environmental engineers; and the businesses need to be involved in guiding some of that curriculum.

Mr. Tyler noted that finances are going to be stressed, and a regional presence is needed in order for businesses in the area to provide scholarships, internships and other financial support. He said that people wanted to see collaboration between the K-12 system, the technical college system, and the university system, whether it was called career ladders, stackable credentials, or anything else. Mr. Tyler said that "swirling" cannot be prevented and must be accepted as a fact of life; higher education should be structured in such a way that swirling does not become a roadblock for students.

Something else that would be needed in the future is either more babies or immigration, Mr. Tyler said. On this point, Mr. Tyler said that the UW System could prioritize and focus on outcomes by supporting students that are aimed at successful careers and focusing resources on high-impact-talent development. He explained that in business, resources are reallocated on an ongoing, routine basis: If something is not working, it gets defunded or resources are lessened; if it is a growth area, or one the business needs to move into, resources are reallocated to it.

Mr. Tyler said that while he was a Regent he came to love the UW System, just as he knew the current Regents did. Though the UW System is a great institution, Mr. Tyler asked why the System would not want to be the greatest institution, noting that the foundation is there and it is within the power of the UW System to do so.

Discussion

President Falbo thanked the presenters and opened the floor for questions and discussion. He began by asking Mr. Tyler to provide specific examples of northwestern Wisconsin's needs. Mr. Tyler first described how former UW-Stout Chancellor Chuck Sorensen would from time to time gather business leaders together and talk about challenges. Not long before his retirement, Chancellor Sorensen gathered a group to talk about engineering challenges. One of the companies present had been founded in the northwest region and is a leader in the high-tech electronics industry. This company was giving consideration to moving its engineering center out of the state because of the challenges they had in recruiting mechanical and electrical engineers. Mr. Tyler said that this company was one that thinks long term, and he suggested that if they saw movement in solving this problem, they would be patient.

As a second example Mr. Tyler told the story of an engineering-driven start-up company that has been around for about four years, which is developing a lightweight diesel engine for general aviation aircraft. This is a roughly \$30-million development project located in New Richmond, Wisconsin, he said; and the company has the potential to earn into the hundreds of millions in time.

Mr. Tyler estimated that between one-third and one-half of the start-up company's current engineering workforce were not U.S. citizens but were instead from Europe. This company had expressed the intent to continue recruiting in Europe despite suffering the cost and hassle of the guest worker program, because they believe this is more effective than recruiting within the U.S.

President Falbo then asked Mr. Battle how many people his organization drew from the market of educated talent located just south of the Kenosha area.

Mr. Battle indicated that his region's situation was drastically different than Mr. Tyler's case study of rural northern Wisconsin. Located partway between the two metro areas of Milwaukee and Chicago, he said the area benefitted from the mobile labor force in the Chicago Metropolitan Area. Looking at Kenosha County's demographics, Mr. Battle said that of the approximately 90,000 people participating in the local labor force, roughly 45,000 commute outside of the community for their full-time gainful employment.

He noted that this was a night and day comparison to the situation Mr. Tyler had described for northern Wisconsin, but the concern was still making sure that pipeline continues to be robust. As the economy recovers, the area will start to see the unemployment rate in the low single digits, along with massive demographic shifts with more retirements and fewer people entering the pipeline.

In response to a question from President Falbo about the source of talent in the New North, Ms. Seifert commented that the New North was fortunate because the students and talent

in that area love the region. People can be recruited from all over the world, and they like to stay.

She noted that central Wisconsin has "a pretty good pipeline;" it was a matter of making sure that young people are finishing school and going on to secondary education, ideally earning a four-year degree. Retraining is another huge opportunity, she said, noting that people who are not finding jobs can be retrained in IT and can find a job immediately, making a good income and staying in the region.

Chancellor Dennis Shields said that UW-Platteville is the UW System's comprehensive university with collaborative engineering programs in Rock County, the Fox Valley, and Washington County. He expressed concern, in a time of tight resources, about building out a completely new engineering program when this would stretch resources thin. He explained that right now UW-Platteville was facing challenges holding onto faculty members because of compensation. He expressed the belief that this compensation challenge is shared among the other chancellors.

Chancellor Shields noted that the dean of UW-Platteville's engineering program planned to go to La Crosse to meet with representatives of Trane, Inc., because 200 of their 400 engineers are going to "age out" within five years. The idea is to work out something with the local technical college and UW-Platteville's engineering program.

Chancellor Shields urged consideration of different ways to approach the engineering issue that would not stretch resources, indicating that institutions were willing to respond to identified needs. He expressed the fear that creating new engineering programs would mean taking money out of the programs that already exist, which would hurt everyone.

Following up on the panelists' requests for the UW System to be more flexible and responsive, President Cross noted that the stackable credential concept was popular in the nonacademic world. He wanted to know if this idea was something the university should be exploring. Looking specifically at the IT cluster, President Cross observed that the three-credit class is often an ideal size for the type of learners in that industry because the nature of the subject meant lessons were easily "stackable." If a stackable credential is aligned with the IT discipline, President Cross said that he wondered if that concept was expandable to other fields as well.

Ms. Seifert said that this was a great idea, relevant to the IT-career opportunity. She referred to it as a building block, where students are able to get comfortable with one area before taking on a new area or dimension. Another consideration in the IT cluster is the importance of staying relevant. Ms. Seifert observed that companies and talent in the region are competing globally, and to stay relevant they need to be able to add additional information as they go forward.

Though she said she did not know how such a program would be built, Ms. Seifert urged that it be considered. She said that ideally it should be done in a collaborative fashion, as the universities, the technical colleges and maybe even coursework done in different countries would all be relevant to building "rock star" talent, which is what the region needs to support start-up companies as they begin to compete globally.

Mr. Tyler shared that when he himself was looking at degree programs, the information, the learning and the knowledge that he sought was not in any of the bachelor's degree programs, but rather was in the master's programs. He recalled speaking to two UW institutions about the possibility of participating in an MBA program, but was told that without a bachelor's degree they would not even accept his application. Instead he drove the extra hour and paid the extra 100-percent premium to go to St. Thomas, because they were willing to be flexible enough to give him the education he wanted. Mr. Tyler suggested that rules get in the way of delivering what is important to business, creating roadblocks that do not make any sense.

Mr. Tyler observed that someone who spends four years studying IT probably will find that what they learned in the first two years is not as relevant as it needs to be. It would make sense to have a progressive, lifelong learning process, where one is either learning in an industry or going back to school. Mr. Tyler suggested that in more and more areas -- whether in advanced manufacturing, engineering, or material -- knowledge acquisition requirements are moving so fast that this type of model has to be built to maintain relevance.

President Cross mentioned that he believed it was *Forbes Magazine* that recently ranked Madison 5th in the nation for IT potential and growth; he attributed this to the influence of Epic. The demand in southern Wisconsin for coders, programmers and computer science people is skyrocketing. Script languages are changing rapidly.

President Cross asked how the UW System could become much more flexible and responsive to what the speakers were telling System leadership about the needs are in each of their regions.

Ms. Seifert replied that many of the companies in her region were looking for employees with four-year degrees, who have a great deal of experience, can problem solve, can communicate well throughout the company, and can help them grow their business. She suggested that the UW System would have to be creative to inspire people who stopped after two years of higher education to rethink getting a four-year degree and help them pursue a career that is exciting, pays well, and allows them to be comfortable within a corporation. Ms. Seifert said the businesses would have to be creative in finding some of this talent and not be content with the normal recruiting process.

She stated that this was an opportunity for the university and businesses to "do some cool things" to meet high demand, not only in Madison but throughout the whole state. The state of Wisconsin is competing against other states and other counties, so if it is not focused on being the best this will be a missed opportunity. She observed that graduates of the UW System could not only go on to help all the companies in Wisconsin grow, but would also produce start-ups of their own.

Mr. Tyler followed up on Ms. Seifert's point by noting that IT, probably more than most other professions, also lends itself to credentialing versus careers. He recommended more opportunity to explore internship and industry partners earlier in academic careers, as some of the more proficient students could take some of their early learning and apply it to immediate challenges in industries. Probably more so than other careers or disciplines, he thought IT had an almost immediate tangible value in the business world.

Ms. Seifert stated that when she started college she was a math major. She realized that with a math major there were not many career options other than teaching, and she then entered the business world.

If the UW System thinks about how it can make students job ready when they graduate, there, too, is an opportunity to be creative. Ms. Seifert said she was thinking of liberal arts students who graduate with certain degrees and do not know where the degrees will take them. Maybe they will go on to graduate school, but there is an opportunity to introduce some alternative career opportunities to them that they might not otherwise have considered.

She observed that the challenge with IT is that the industry does not know what it does not know. It does not know what future IT jobs look like, and so it is imperative that the IT industry stay close to business to help understand what those jobs could be, and to help students, parents and guidance counselors understand the opportunities available.

Mr. Tyler said that it was important to recognize that thought had already gone into some of these issues; he pointed to the way UW-River Falls analyzed its data, recognized that many students were coming to campus but did not finish with degrees, and created a program that addressed those people. Then UW-River Falls located the program on a common commuter path so it was convenient to stop in the morning or evening for classes; now that program's popularity is exploding, he said.

Regent Vásquez asked the panelists, as leaders in their respective communities, to consider the need to bring talent in from outside the state. He pointed out that even with successful degree programs, not everybody trained in a region was going to finish a degree and stay to work. Recalling an example of a Green Bay Chamber of Commerce public relations video about reasons people should live and work in the Green Bay area, he noted that the Green Bay City Council was at the same time pursuing an English-only city ordinance. Regent Vásquez suggested that Wisconsin needs to become a more welcoming state for diversity.

Mr. Tyler responded that he was meeting Regent Emeritus Stan Davis later that day to discuss how to bring diversity into a community where the population is currently 3 percent people of color. He recognized that this issue must be addressed.

Mr. Tyler said that his company also was in the very beginning stages of discussions with UW-Stout and Chancellor Bob Meyer on working with an organization in the Phillips neighborhood in Minneapolis, which is an impoverished area with a private religious-based school. The aim is to try to build connections not only between the neighborhood and UW-Stout, but also to figure out how his organization could become an internship location for that partnership. Mr. Tyler said that his business would need the university's help, especially with its access to international students that the business otherwise would be unable to reach.

Ms. Seifert said that on the diversity front, New North had many different strategic priorities when it began, one of them being diversity. The goal to attract, develop and retain talent is a goal to attract, develop and retain diverse talent. To that end, New North has done several things, including putting together a case for diversity, explaining why it is important and making that available to companies. At the annual New North Summit there is a diversity award

that recognizes a "gold standard" company, one which does all the right things and has a diverse workforce or senior leadership.

New North also recently launched something called the Diversity Resource Guide for the larger metropolitan areas in the region, such as Green Bay, Appleton and Oshkosh, where the organization highlights Hispanic, Hmong, and African American restaurants and other businesses for those who are not familiar with the community.

New North uses employee networks, as well; Ms. Seifert used Kimberly Clark as an example of a gold standard company in the region for having the most employee networks, including networks for Hispanic, African American, women, gay/lesbian and other groups of employees. When new people come to town looking for more people of their background, New North can connect them with the network and make sure they are welcomed into the community. She explained that members of the networks can answer questions that other members of the business community might not be able to answer.

She emphasized the focus on collaboration so that everybody feels welcome. Speaking to Regent Vásquez's example of the Green Bay City Council, Ms. Seifert shared that many in the business community were shaking their heads over that same story. She said she was sorry that it had happened, but said that now the region had to move on from that. She added that companies do try hard to recruit and retain diverse talent, but said that retaining the talent was difficult.

Mr. Tyler indicated that in his region there was a growing Hispanic and African American population that did not participate in the economic recovery or in educational attainment at the same rate as the Caucasian population. That issue was of concern to regional business leaders.

Ms. Seifert stated that for IT, diversity was a challenge, as this is currently a very white male industry. She said that they were looking to inspire and support women and girls who code in northeastern Wisconsin. She noted that there had been success in helping the Hmong and Hispanic populations enter engineering, and achieving similar success in IT would be a future endeavor.

Regent Higgins said that having had the opportunity to visit many campuses and the privilege of speaking with the university's shared governance partners, he had often heard from faculty members that a university judged by the number of jobs it creates was not the kind of university that they were hired into or grew up in. They wondered where the liberal arts component fit into that image. Regent Higgins asked what the UW System would need to do or change in its leadership structure at the System or campus levels to address these legitimate questions.

President Cross answered that part of the future of higher education is built on the ability to provide some form of applied connection, either during or after the liberal arts educational experience. He said that he believed this was something the university needs consider. He noted that the skills that are honed within a liberal arts education are the primary skills employers want, but employers also want some type expertise; using IT as an example, this could be the knowledge of how to code python or do a little java script. President Cross said that there is an

opportunity for the UW System to think creatively about how it can help people like Mr. Tyler work with a community to develop the skills business needs.

President Cross said that he had picked up a couple points out of the discussion about partnerships and collaboration: The value of the liberal arts is actually going up, as is the value of connecting the liberal arts to some of the specific needs that employers have.

Mr. Tyler agreed, holding UW-Stout's outcomes up as a testament to what President Cross had said. He noted that when an individual has a combination technical ability and liberal arts, they "knock it out of the park." He said that today an English major, a history major or psychology major alone do not have what it takes to get a job in his organization, but being given an IT certificate on top of that, even a short one, would help. As an example he shared that his organization's IT director was an English major who worked at a bookstore before going back to a technical college to get a degree in IT. With his ability in communications and writing, the IT director accelerated past everybody else. The same was true for the Director of Strategy, who majored in journalism and ended up as a city planner in an engineering firm.

Mr. Tyler said that once employees get in the door of an organization, he absolutely agreed that the liberal arts would accelerate them. The challenge is that they have to get in the door. He noted that job placement outcomes for collaborations with the technical colleges were off the charts, and that if someone could figure out how to couple what those programs deliver with the University's programs in a way that is seamless to the student, it would create the greatest university.

President Falbo observed that the liberal arts and IT make an odd couple. Ms. Seifert commented that people need to be able to do the communication between the IT specialists and the senior leaders of the company. The two groups do not always speak the same language, and so people with good writing, communication, and problem-solving skills who are capable of seeing the whole picture are needed to make that communication meaningful and effective.

UW-Oshkosh Provost Lane Earns addressed President Cross's comments about how the university could apply the liberal arts. He noted that UW-Oshkosh had a successful model for applying liberal education, which he would hope to see expanded. Through LEAP and Inclusive Excellence, UW-Oshkosh had been able to create an engineering technology program, insurance programs, and intensive online nursing program. Provost Earns said that in every single college, UW-Oshkosh had applied liberal education to the workforce and we had made it succeed.

President Falbo thanked everyone for their comments and invited the speakers to stay and participate in the discussion following the next panel presentation.

- - -

UW CHANCELLORS' PANEL DISCUSSION: UNIVERSITY OF WISCONSIN RESPONSES TO WORKFORCE NEEDS, NOW AND IN THE FUTURE

President Falbo said the next panel, representing different regions of the state, would address how the UW is anticipating the state's future needs, growing the innovators and leaders of tomorrow. He then welcomed and introduced the panelists: UW-Stout Chancellor Bob Meyer, UW-Platteville Chancellor Dennis Shields, UW-Green Bay Chancellor Gary Miller, and UW-Madison Chancellor Becky Blank.

Chancellor Bob Meyer, UW-Stout

Chancellor Meyer started his presentation by explaining how UW-Stout determines it will launch a new program, noting that UW-Stout's degree program offerings have doubled from 22 programs ten years ago, to 45 today. The institution listens to multiple sources, seeking input through its strategic planning process and actively participating in regional economic development groups. UW-Stout also conducts market research prior to offering new programs, and leverages advisory committees to keep curriculum relevant.

In addition, UW-Stout partners with business and industry through its Discovery Center, which provides students with opportunities to practice the liberal arts and critical thinking through 200 projects each year. He added that since the Discovery Center was initiated in 1997, almost 5,000 jobs and been created or saved, and results included \$558 million in client-reported impacts. The Discovery Center gives UW-Stout close contact with business and industry, provides an opportunity to identify program strengths and gaps and what graduates might be missing, and drives the institution to evaluate and expand its programs.

Chancellor Meyer referred to a PowerPoint slide with a map of Minnesota and Wisconsin; the Minneapolis/St. Paul area and its proximity to UW-River falls, UW-Eau Claire, and UW-Stout; and the next closest UW campuses with engineering programs, UW-Madison, UW-Milwaukee, and UW-Platteville. He explained that UW-Stout is hearing from area employers that the corridor from the Twin Cities to Eau Claire is exploding, but students are not staying and talent is not being developed in the region, in part because the region lacks some necessary opportunities. He explained that students are under a lot of cost pressure and looking for educational venues that are close to home, and employers are saying they need more engineering programs for students located in northwestern Wisconsin. He referred to a 2012 study that referred to the ability of students in the River Falls-Eau Claire-Stout corridor to travel 100 miles or less to earn their degrees.

Chancellor Meyer said that UW-Stout, UW-River Falls, and UW-Eau Claire each have staff and facility capability to support new engineering programs. UW-Stout has submitted an Intent to Plan for mechanical, electrical and chemical engineering programs; UW-River Falls has submitted an Intent to Plan for environmental and agricultural engineering; and UW-Eau Claire has submitted an Intent to Plan for materials science and engineering and seeks to collaborate on a chemical engineering program.

He continued by explaining that UW-Stout has more than 30 engineers on staff that can help to deliver this content, and he views this as a natural step and progression for UW-Stout. Although there will be costs to adding these programs, he said the programs are important to support the economy and the region.

Another emerging need in northwestern Wisconsin is digital marketing technology, the chancellor said; and UW-Stout has submitted an Intent to Plan for an undergraduate program in this area. He added that this potential program grew out of a special request and donation from Thomson Reuters in Minnesota.

Chancellor Meyer also addressed extending partnerships that meet business and industry needs. He said that UW-Stout wants to build new programming that is competency-based in the way it's constructed and renew and expand credit-transfer agreements. He also emphasized the importance of the St. Croix Valley Educational Collaborative and the Northwest Wisconsin Educators for Regional Development in working with K-12 schools to communicate information regarding the opportunities available through technical colleges, private colleges, and UW institutions. Chancellor Meyer concluded his presentation by announcing the launch of the Northwest Wisconsin Engineering Consortium, a partnership between UW-River Falls, UW-Eau Claire and UW-Stout to create a core curriculum that will allow students to start their education at any one of the institutions and then transfer to one of the other two institutions.

Chancellor Dennis Shields, UW-Parkside

Chancellor Shields prefaced his remarks by stating that there needs to be more discussion regarding the expansion of engineering programs at UW institutions. He then thanked the Regents for inviting the chancellors to provide some reaction to the prior speakers, and said that rather than speaking specifically about UW-Platteville he would offer more general comments.

Chancellor Shields began by stating that both the UW System and the individual campuses have a major role to play in attracting talent. This is accomplished by providing Wisconsin students with access to affordable, high-quality, relevant education in a broad spectrum of areas, with an emphasis in areas that will support business and industry and grow the state's economy. This is also accomplished by attracting talent from outside the state, from neighboring states and internationally, although Chancellor Shield suggested that the UW comprehensive campuses had not fully leveraged this second strategy over the past couple of decades.

He continued by explaining that in order to undertake both of these strategies, it is necessary to keep the educational process affordable. He noted that the per capita income in Wisconsin is lower than in some neighboring states, and because of the state's demographics, it is important for UW institutions to have more flexibility to attract revenue to support programming. He said the notion that one can "do more with less" is wrong, and while certain efficiencies can be achieved, at some point those efficiencies cease to exist, and investment is necessary to move forward.

He said the UW System also needs to use its strengths. He said the UW System is a great university system, and institutions should be unabashedly marketing their programs in neighboring states and internationally. In addition, the UW System should not be artificially constrained by what it charges for its product. He emphasized that he believes UW System should keep its high-quality educational system as affordable as possible for Wisconsin residents, but for nonresidents, UW institutions should charge what the market will bear, which will be different for each institution.

Chancellor Shields said that UW institutions must work hard on collaborating with, and being responsive to, business and industry in the state, and must do so in the most efficient and responsive way. He urged Regents to be careful to make sure they are not duplicating and undercutting well-established programs.

He also said that institutions need to argue for flexibility on the part of the legislature, administrative agencies, and the UW System. The old model is not working, or will not continue to work, and UW institutions need to think about and do things in new ways, and be open to innovation. He concluded by saying that UW institutions need to work together, have arguments, make decisions, and move forward knowing that everyone has the best interests of the state of Wisconsin, the universities, and citizens as the primary focus.

Chancellor Gary Miller, UW-Green Bay

Chancellor Miller began his presentation by joking that it was approaching that time of day when everything has been said but not everybody had said it! He started by explaining that he had worked in higher education for almost 30 years, in every type of institution; comprehensive institutions are becoming incredibly important in addressing workforce issues. He reminded everyone that comprehensive institutions are almost always established in regions because the people in the region wanted them there. Because comprehensive institutions are sometimes established to meet a specific need, they often have a close relationship to the businesses, nonprofits, and government in the area, and are often closely connected to technical colleges and the K-12 system. Therefore, Chancellor Miller suggested, comprehensive institutions should be the focus of the Board's attention with respect to how to meet the needs that had been expressed during the discussion. He also said that urbanization is increasing, and 2013 was the first time in which half the people in the world lived in an urban environment; while UW institutions are part of a system, there are regional needs which may call for regional approaches to issues like program development.

Chancellor Miller said that two things worried him with regard to workforce development and the issues discussed during the meeting. The first is the issue of who works in the coming years and in what jobs. He said that comprehensive universities have a lot of levers to pull in meeting this need, such as their tendency to form strong partnerships, but also an imperative to be involved in, and show leadership in, pipeline issues.

He said comprehensive institutions have high engagement portfolios and need to leverage those, noting UW-Green Bay's efforts to identify adults in the Green Bay area with credits but no degree and to encourage them to complete their degree requirements at UW-Green Bay. He

suggested another regional opportunity for comprehensive universities with regard to "swirling" or the tendency for students to transfer between institutions. Rather than viewing this as a negative, he said that "swirling" is an opportunity for students to optimize their economic situations, and suggested UW institutions look for ways to encourage swirling, working in closer partnerships with the technical colleges and UW Colleges.

Chancellor Miller continued by noting that the second thing that worries him is the level of innovation, the innovation economy, the changing geography of jobs in America and the future of work. He said these are things that he thinks about when developing programs and whether the institution should take on a struggle with a new program in the system. Since 2001, the United States' global share of research and development declined from 37 percent to 30 percent, while China's share increased from 2 percent to 14 percent. This change is consistent with the state and federal governments' disinvestment in higher education research, which is a critical issue because it affects local economies, particularly in urban areas and areas that have high potential like Green Bay. He explained that one-quarter of the jobs in Green Bay are manufacturing, but the future of Green Bay could be a vibrant, innovation economy with more research and development. He added that he worries about what the UW System is thinking and what the state is thinking about this issue.

Chancellor Miller also expressed concern about the state of knowledge, as new technical knowledge doubles about every two years, which means that when a freshman reaches their junior year, about half of what they learned is outdated. He said that the U.S. Department of Labor predicts that today's graduates will have somewhere between 10 and 14 jobs by the time they are age 38, and that one-half of the jobs have not been invented yet and will use as yet unknown technologies. Chancellor Miller queried what skills are being described when "skills" are discussed. He said that educational institutions want to help with workforce demand and workforce issues, but must also determine a strategy that allows institutions to nurture an innovation economy and to train students for the skills of the future; liberal arts and sciences are the way to do so.

Chancellor Miller concluded by expressing strong interest in both what the UW System needs to do now, as well as over the next couple of decades, to contribute to a vibrant state economy. He said the System is prepared to contribute, and has the right leadership and the right kinds of institutions, and he is ready to partner with his colleagues and the Regents to help make that happen.

Chancellor Rebecca Blank, UW-Madison

Chancellor Blank began by saying that because she was somewhat disappointed that the two morning speakers did not make the case for why higher education, particularly four-year and graduate education, is so important to the state, she would take two minutes to make the case: She said the comparative advantage of U.S. business and industry, in an increasingly competitive economy, is to be nimble. It is necessary to have new ideas; to be innovative in the products produced, how labor is used, and the processes and technologies used. And it is necessary to be ready to adapt and change. Being nimble requires two things: (1) a skilled and nimble workforce with leadership that understands how to deal with change; and (2) innovation, new

ideas, and staying on the cutting edge of what those new ideas mean for one's industry. She said that UW institutions provide both the people that businesses need to hire, and the ideas and the collaboration on innovation that businesses need.

The evidence for this case, Chancellor Blank said, is that the demand for skilled workers has increased steadily in the U.S. since the late 1970s. High school graduates or high school dropouts have lower incomes now than did their counterparts in the 1970s, and incomes are flat for those with a two-year degree. She said that only those with a four-year college degree have seen their incomes go up as compared to their 1970s counterparts, and people with master's degrees and doctorate degrees have been "the real winners."

Chancellor Blank said that the UW System produces the people whose incomes have gone up, and the leaders who will create jobs, come up with new ideas, and lead the businesses that are going to be successful in this country and in the future. She said this is the main argument for what the UW System does and why higher education is so important. In order to have a successful regional economy, the state has to have people here who want to be in the state, which means training people in Wisconsin, as well as attracting some from outside of Wisconsin.

Chancellor Blank said that people in STEM-related fields had experienced the greatest income gains due to changes in the economy and competitiveness in certain areas. She added that students understand this, and UW-Madison has seen substantial changes in the demand for STEM-related degrees. Over the last ten years, the proportion of students majoring in STEM fields has increased from 31 percent to 42 percent. In a number of key fields, including engineering and nursing, UW-Madison is seeing more students than it can admit to the programs, partly due to tight budgets. She added that in some areas, UW-Madison is seeing a deterioration in the quality of the program it provides due to increases in class sizes and less attention and less advising for students, which is absolutely the wrong thing to be doing in the fields that are most important to this economy.

Chancellor Blank said that in order to deal with this situation, it is necessary to invest in these growing fields. However, investment does not mean one-time money and it does not mean using reserve funds; investment means base funding that is available in the long run to hire faculty, to expand programs, and to offer new opportunities for enrichment through clinical, laboratory, or internship opportunities. She added that any funding that UW-Madison receives through the Talent Development Initiative will be invested in engineering, nursing, computer science, and areas of rapidly growing demand on-campus and off-campus, where there are enormous job opportunities and jobs that are essential for the regional and national economy.

Chancellor Blank then addressed some of the questions raised throughout the day. In terms of the job-readiness of students, she said she was not worried about students coming out of professional programs such as business, engineering and nursing, as these programs are creating internships and have students ready they graduate. She said that the liberal arts colleges are often a little less effective at job and career preparation, because students are often studying things such as anthropology, history, and English, which is not the work they would be doing after college.

She expressed excitement about a new career initiative that would be announced by the dean of UW-Madison's College of Letters and Science. The initiative will include information on what students are doing ten years after finishing college in particular fields and what they are earning. This information will lead to better advising and opportunities to connect students with alumni. She said UW-Madison is also creating a one-credit class during students' sophomore year that will be advertised to both students and parents. The class will focus on clusters of majors, where those majors have led students in the past, the career direction that students want to take, the classes they should take during the next two years, and the type of experiences they need outside of the classroom. The goal is to create within the liberal arts college the same sort of career guidance and tracking that professional schools have long had.

With regard to whether UW institutions are meeting industry demands, Chancellor Blank noted that, like all other campuses, UW-Madison is increasingly partnering with industry. She also noted that UW-Madison has created a computer science certificate for non-computer science majors; the certificate would be in added onto undergraduate degrees in other fields. The campus is also developing a professional master's degree program for nontraditional students, those who are working full-time; a master's in computer science is actually being taught at Epic's request at the Epic campus.

Chancellor Blank also offered some comments on the debate about what is regional and what is statewide. She said that UW-Madison has a number of high-demand areas on the campus that are also high-cost area to offer, such as engineering, nursing, math and computers. She said that UW-Madison needs to invest in and expand these programs, and starting new programs on other campuses at a very high initial cost is foolish when existing programs on other campuses could be expanded much more cheaply. She highlighted the importance of partnering across the state, just as UW-Madison's medical school has partnered with health care industries in northern Wisconsin to effectively train rural doctors.

Chancellor Blank said she also wanted to address the relationship between research and economic development. UW-Madison brings to the state more than \$1 billion each year to spend on research and related activities, which provides enormous advantages for education and economics. She said that research activities offer opportunities for UW-Madison to partner with industry on innovation and ideas and generate entrepreneurial opportunities for students. Research activities also provide opportunities for UW-Madison to generate technology transfer into the private sector.

Offering a final comment, on demographics, Chancellor Blank noted that UW-Madison brings in a lot of students from out of state but does not retain them as well as in-state students. She said that thinking about how the state can better retain students is a serious challenge. She also noted that UW-Madison brings in a lot of international students and, should the nation's immigration laws ever change, UW-Madison will be a major driver of bringing international talent into Wisconsin and keeping talent in the state.

Discussion

After Chancellor Blank concluded her presentation, President Falbo invited Regents to ask questions of the panelists.

Addressing Chancellor Blank, Regent Whitburn noted that she had mentioned the need for business to be nimble, and that Regent Emeritus Tyler mentioned during his presentation the reality of his business -- ramping up, ramping down, redirecting capital, and the need for engineers. Chancellor Shields mentioned the need for more money, but in the past legislators have indicated there will be no additional money.

Focusing on the issue of redirection, Regent Whitburn recalled Jeffrey Immelt's remarks to Regents during a previous meeting in which Mr. Immelt said the nation needed twice as many engineers as were available. Sometime after that presentation, Mr. Immelt and his company, General Electric (GE), announced the spin-off of their credit card processing business, a major component of the company and profit generator for many years, in an effort to be more nimble. Regent Whitburn said that the challenges facing the UW System in the upcoming biennial budget are incredible, given that Medicaid will need an additional \$700 million dollars. He asked the chancellors if the UW System is sensitive to these realities and the need to redirect efforts, rather than asking for more money.

Chancellor Blank responded that she appreciated the serious question and said she hoped everyone was paying serious attention to their administrative costs, and the extent to which money from administrative overhead can be directed into programming. She also said she agreed with Chancellor Shields' earlier remarks regarding the need for investment, because redirection can only go so far. She added that while she understood the need to redirect, as well as to make UW-Madison as lean as possible, redirection alone is insufficient given the levels of investment needed to adapt to the modern world of education and research.

Chancellor Blank said she was very pleased to see that Governor Walker, at the point of his reelection, noted that he wanted to work on improving the efficiency of state government. She said there are a number of ways in which everyone could run their operations much more effectively and for less cost, and if the savings can be redirected into programs, that would be wonderful. She also pointed out that some state regulations, such as those governing the construction of buildings, increase costs for UW institutions; that money could be better spent elsewhere.

Echoing Chancellor Blank's comments, Chancellor Shields said that there is no doubt that every chancellor has to find more efficiencies, and push the shared governance process for help in making critical decisions. He added that the infusion of more resources is important, and if that cannot come from the state, it may require flexibility in other ways.

Regent Whiburn noted that he had not said anything about efficiencies or inefficiencies; he was referring to was doing more of some things and less of other things.

Chancellor Blank pointed out that public institutions are not like private institutions. She explained that she cannot stop operating the medical school because it costs an enormous amount of money per person, while a CEO might consider eliminating a unit because it is too costly for the returns it generates. There are many reasons other than economic returns or cost/benefit ratios why UW-Madison should operate a major medical school. She noted that within the public sector, it is important to think about priority setting, but it is not as easy as in the private sector.

Offering an observation on Chancellor Blank's comments, Chancellor Patterson said that he wanted to return to an earlier comment she made about UW-Madison's collecting data on what English majors, for example, are doing ten years after graduation. He said that universities should stop counting people with English degrees who are not teaching English as "working out of field," because the idea that an English major can only teach English is wrong.

Regent Delgado said that while the university is a great resource, with great capabilities, it is not a great resource for everything that has to be done in the state and not the solution to everything. He said the university has to have flexibility, but also needs to recognize its limitations. He noted that the state has resources in addition to the university, and he encouraged more work with the other educational institutions in Wisconsin, such as the technical colleges and private colleges.

Referring to the discussion of the need for engineers, he remarked that he is an engineer and has a company that "looks like the United Nations" because he has to bring in engineers from Pakistan and India because he cannot find engineers in the United States. He said that the needs of industry are changing continuously, and it is difficult for the UW System to address, with mortar and bricks, every need that is identified. Regent Delgado noted that there are many different types of engineers – some are hands-on while others are theoretical – and some of every type are needed. He suggested that there are other ways of addressing these needs, such as universities in the northern part of the state collaborating with universities in the southern part of the state.

Regent Delgado said that the challenge for the UW System is to recognize its resources, and realize that it cannot alone address all of the needs. He said he was concerned with the idea that the UW System has to do everything for everybody, diluting the variety of things that the System does very well, and possibly destroying some of the significant assets within the System.

President Falbo recognized Chancellor Gow for a final comment. Chancellor Gow shared his recent experiences with Trane Corporation, an international company based in La Crosse. He said that while UW-La Crosse does not have an engineering program to produce engineers for Trane Corporation, the company has employment opportunities in many other areas, such as tracking geopolitical developments, global warming, and climate change, communication in multiple languages, sales, and marketing; there are many avenues for people to be involved with that organization.

Chancellor Gow, noting that UW-La Crosse had the largest enrollment in the history of the school, said the biggest major is biology, followed by psychology, education, and finance.

UW-La Crosse has all kinds of programs, as does every other UW institution, and the key is that there is student demand for these programs. He also said a lot of the international students enroll at UW institutions because they come from countries where they are given an aptitude test at a very early age and are told what their occupation will be. He said that human beings want to have freedom of choice, and the UW System does a great job of providing that.

In reflecting on the entire day's conversations, he said he was not certain that things were as dire as they might be made to seem. However, the challenge is how to fund programs and to determine what students will pay; what share the state will pay; and what share will be grants, contracts and gifts. He also reminded everyone that regardless of the major, about one-half of the curriculum consists of general education courses, which is an infrastructure that all institutions need to provide. Chancellor Gow said that this sometimes can be underappreciated.

- - -

WRAP-UP, SUMMARY, AND FUTURE ACTIONS – UW SYSTEM PRESIDENT RAY CROSS

President Falbo asked President Cross to briefly summarize the day's presentations and discuss future actions. President Cross started by sharing with the Board that he and his staff were working on a process to find ways to work more efficiently and effectively in the back office, and transfer the resources that are saved to the front line. He said that the UW System is developing a plan to engage an outside consultant to look at business process re-engineering. He said he wanted to mention this because he thinks the UW System has to find resources internally to deal with some of the issues it is currently facing and repurpose some resources to address the needs of the state. He also noted that engaging shared governance in this process is important.

President Cross expressed his appreciation to the panelists for their presentations. Noting that he had been involved in higher education for more than 30 years, he recalled that concerns about demographic issues had existed for a long time. He said the key takeaway from the demographics presentation was the flattening of the workforce.

President Cross reminded everyone of the statutory mission of the UW System, which includes improving the human condition. He asked, in light of Regent Delgado's comments, how the UW System should focus on that for the state of Wisconsin, and how the System can do it well. He said that the UW System cannot achieve its mission if the economy is struggling so badly that the UW System cannot serve and accomplish its purpose.

President Cross recalled Dr. Berry's key points: The state's population of people under 18 years of age is declining, as is the percentage of working adults in Wisconsin. In addition, more older people are moving to Wisconsin while at the same time more young people are moving out. Dr. Berry suggested that higher education in Wisconsin must step up to counter these trends by focusing on the talent path, improving remedial education and retention, graduating more students, improving time to degree, and focusing on affordability. He also talked about the spawning of entrepreneurs by encouraging creativity and innovation, and he shared his concerns about the silos that exist within the university.

President Cross continued by highlighting key takeaways from Department of Workforce Development Secretary Reggie Newson, noting that there are more jobs that demand higher-level skills and more flexible options are needed for students so that "swirling" among different types of institutions is easier.

Secretary Newson also touched on the significant regional variations within Wisconsin and encouraged multiple types of collaboration among chancellors and institutions. President Cross said he wished Secretary Newson would have highlighted some of the information on the PowerPoint slides he had not shown, such as the fact that jobs requiring a bachelor's degree are growing at a faster rate than jobs for those with a high school diploma or a two-year degree. Growing fields include health-related fields, engineering, accounting, advanced manufacturing and liberal arts graduates with some specific area of expertise.

President Cross continued by noting that a portion of the business-panel presentation confirmed the existence of the talent gap, which limits the ability for businesses to grow. He said that addressing the talent gap directly impacts the state's economic strength because of the direct correlation between higher education and higher pay, and higher pay means a higher tax base within the state.

He recalled that Regent Emeritus Tyler talked about the need for engineers in his area of the state, as rural communities often have difficulty pulling in outside engineers and keeping them. Mr. Tyler also noted the importance of information technology, advanced manufacturing, and health care in the region and challenges in filling these positions.

President Cross said that Ms. Seifert emphasized the importance of collaboration and partnership in her region, described the emerging workforce needs throughout the state in the information technology cluster, and encouraged the UW System to be creative with approaches to serve, work with, and partner with businesses and to help them meet their needs.

President Cross said that for businesses to reach their goals, they need the UW System to help identify and nurture talent.

He said that if Wisconsin is going to face and overcome the challenges posed by demography and the changing economy, the UW needs more students – young and old, traditional and nontraditional, urban, suburban, and rural – and a more diverse body of students and students majoring in high-demand disciplines.

President Cross said that the UW System recognizes that the challenge of getting these students on the talent path to success starts well before they decide to go to college and requires partnering with the K-12 schools to make sure students are college-aware and college-ready. He said that once students are in college, the UW System needs to make sure they succeed; graduate; and have hands-on, applied experience. He said that it is also important to keep graduates in Wisconsin. For Wisconsin to be a place where in-state and out-of-state graduates want to live and work, it is important to connect students with career opportunities and employers in Wisconsin communities before they graduate.

President Cross said that to attract and retain people, Wisconsin needs to have a robust economy and a thriving culture of entrepreneurship and successful businesses. The state needs to not just create high-impact talent, but also to help foster the development of new and existing businesses that leverage that talent. He noted that the talent path, the talent infrastructure and the talent-based economy are the three pieces of the UW System's Talent Development Initiative. The UW System is an important part of the solution to the challenges that the state is facing.

President Cross observed that for academics, the tendency is to analyze and talk about things, but it is time to act. UW System is the state's largest developer of human potential and is in a unique position to shape the future of the state's economy. The UW System must reinvent the way it does business so the talent it develops can reinvent Wisconsin. President Cross said it is incumbent upon the UW System to take the lead with its partners, the legislature, and the private sector to do what is necessary to fully implement the Talent Development Initiative and address these challenges. President Cross forecasted a better university, one that is more agile, more responsive and more focused on the needs of the state; only then can the University of Wisconsin truly be the University for Wisconsin, he said.

Regent President Falbo said that he believes his role is to leave his opinions at the door and create an atmosphere for everybody that is invested in the UW System to have their say and then reach their own conclusions. However, he indicated that he wanted to offer an opinion: Despite some of the comments that were made during the morning presentations, Regent President Falbo said that the UW System promotes and nurtures creative thinking, innovation, invention, and economic impact and job fulfillment. He said that anybody who thinks the UW System does not do this, or thinks that the UW System is not the best at it, does not know the UW System. With that, he encouraged the chancellors to continue doing what they are doing on their campuses.

- - -

REGENT COMMUNICATIONS, PETITIONS, AND MEMORIALS

President Pruitt recognized Regent Pruitt to offer a memorial reflection. Thanking President Falbo, Regent Pruitt offered a tribute to Regent Emeritus Michael Spector:

Last Friday, Regent President Emeritus Mike Spector died after a short but spirited battle with cancer. He served as a Regent for seven years. He was President and Vice President of this Board. He loved this University System and especially loved UW-Madison, where he went as an undergraduate before going on to Harvard Law School.

All of us who served with him on the Board, those of you who worked with him in the System and on the campuses, I'm sure have your own special memories.

In so many ways, Mike was one of the wisest people I have ever known. We got together often after he left this Board and had lunch on a pretty

regular basis. I never went away from one of those lunches without having learned something.

Our last lunch together was a few weeks ago. We talked about his cancer and shared some of his stories of the challenges that such a fight poses to a family and to all the people that you love. As always, Mike was thinking about others and looking ahead to the next step in the battle he was waging. He waged his battle as those of you who know him would only have expected him to. Every day was sort of one more step forward trying to figure out the mystery of what was going on.

He shared a quote at the time from a guy named Daniel Meniker, who was battling cancer in his own way. When I got back to my office after lunch waiting in my email was an email from Mike with a quote. I thought I would share that with you.

"Cancer can at least for a while have some benefits. It allows you to dodge onerous commitments. It strengthens friendships. It prevents you from taking good things for granted. It increases the urgency of parts of your life and shows up the trivialities. It requires you to find your courage."

I thought about that and I said that is typical Mike Spector. To the end bringing us wisdom, insight and courage. He was the ultimate educator. He will be forever missed but for his presence we should be forever blessed and grateful.

- - -

CLOSED SESSION

President Falbo called upon Vice President Millner to present the resolution to move into closed session. The motion was seconded and adopted on a roll call vote, with Regents Behling, Delgado, Evers, Falbo, Farrow, Hall, Harsy, Higgins, Millner, Mueller, Petersen, Pruitt, Purath, Vásquez, Walsh, and Whitburn voting in the affirmative. There were no dissenting votes and no abstentions.

Closed Session Resolution

Resolution 10425

That the Board of Regents move into closed session to: (1) consider UW-Madison honorary degree nominations, as permitted by s. 19.85(1)(f), *Wis. Stats.*; (2) consider a student request for review of a UW-Milwaukee decision, as permitted by s. 19.85(1)(a) and (g) *Wis. Stats.*; and (3) confer with legal counsel regarding pending or potential litigation, as permitted by s. 19.85(1)(g), *Wis. Stats.*

The following resolution was adopted during the closed session:

Student Request for Review of a UW-Milwaukee Decision

Resolution 10426

That the Board of Regents adopts the attached Proposed Decision and Order as the Board's final Decision and Order in the matter of a student request for Regent review of a UW-Milwaukee decision.

- - -

The meeting was adjourned at 4:30 p.m.

- - -

Submitted by:

/s/ Jane S. Radue

Jane S. Radue, Executive Director and Corporate Secretary Office of the Board of Regents University of Wisconsin System