

MINUTES
STATE UNIVERSITY SYSTEM OF FLORIDA
BOARD OF GOVERNORS
TASK FORCE ON ACADEMIC AND WORKFORCE ALIGNMENT
University Student Center Ballroom
University of South Florida, St. Petersburg
200 6th Ave S.
St. Petersburg, Florida 33701
June 22, 2021

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and its committees are accessible at <http://www.flbog.edu/>.*

1. Call to Order and Opening Remarks

Chair Eric Silagy convened the meeting on June 22, 2021, at 8:32 a.m. with the following members present: Governors Cerio, Huizenga, Jr. (9:12 a.m.), Jones, Jordan (8:40 a.m.), Kitson, Lamb, and Stermon. A quorum was established.

2. Minutes of May 11, 2021, Committee Meeting

Chair Silagy called for a motion to approve the meeting minutes from the Task Force's May 11, 2021, meeting. Governor Cerio moved to approve the minutes. Governor Kitson seconded the motion, and the motion carried unanimously.

3. Discussion with Florida Business Leaders: Information
Technology/Cybersecurity

Chair Silagy stated that the agenda item for the meeting was a continuation of a series of discussions with Florida employers across various industries critical to our state. He said that the committee would hear from business leaders in Florida's information technology and cybersecurity regarding future talent needs and how the State University System can help address those needs.

Chair Silagy welcomed and recognized Mr. Bobby George, Senior Vice President and CDO of Carrier Global Corporation, Mr. Ashish Gupta, Vice President IT and CIO of NextEra Energy, and Mr. John Megally, Region President, East of KForce. He expressed his appreciation for their participation in this important discussion. He then asked each panelist to provide an introduction and an overview of their company and company needs.

Following a brief introduction by each panelist, Chair Silagy commented that each panelist has a large footprint regarding the number of employees, the number of customers served, and the diverse geography served. He asked the panelists to describe the biggest challenges in attracting and retaining talent in Florida or across the country.

Mr. Gupta started by saying the most significant challenge now is attracting talent to Florida. He said he feels that there has not been a great job done in marketing Florida. He provided an example saying that people in Atlanta do not know what kind of jobs are available in Florida and what companies are there, so attracting talent becomes challenging. Mr. Gupta said hiring local talent helps with retaining employees, but there are not enough. He said building and generating more talent could help bridge the gap.

Mr. Megally commented that Florida is in a transformational stage, and companies are transitioning after COVID-19. He stated that most people think of the hospitality and entertainment industries as primary employers in Florida, which indicates the lack of awareness and knowledge of the number of opportunities in technology. Mr. Megally said that there needs to be a better job done to make people aware that Florida has transitioned to an IT talent and IT organization state. He said Florida is ranked number five for technology job openings in the country, ranked just behind Virginia, New York, Texas, and California.

Mr. George said one of the top attractions for technology talent is the opportunity to work on the latest and greatest. He commented that having a striving start-up community alongside established businesses is a recipe for success. Mr. George stated that the start-up communities offer the opportunity to build leading and cutting-edge technology in data sciences, cloud architecture, software engineering, and cybersecurity, which newer graduates want to do. He said the thriving community provides employment opportunities that allow employees to change jobs; gone are the days where the expectation is to have a life-long career with one company. Mr. Gupta commented that having a start-up ecosystem and established companies could be an opportunity to attract talent to the state.

Chair Silagy asked the panelists if their companies recruit students from the state universities in Florida. He inquired about their opinion of the quality of the students and the gaps that have been identified that need to be addressed.

Mr. George said Carrier Global Corporation recruits employees from Florida universities. He stated that the company has a new program called the Digital Technology Leadership Program. This program offers cohorts of computer science and data science graduates to progress through a structured two-year program where they experience different areas of digital technology within the company. Mr. George commented that the program is intended to create well-rounded personnel with solid familiarity with the company who can move into a significant-sized job early in their career. He stated that while the program has been successful, the challenge is attracting experienced professionals into the state.

Mr. Gupta agreed with Mr. George and said NextEra Energy offers a similar program with 56 members who were hired from Florida universities into the program. He commented that while those hired are extremely smart with great technical skills, they do not have the commercial skills or understanding of business language. According to Mr. Gupta, graduates do understand the technology. However, they are working for a

company where technology is used to make business better. Therefore, having the knowledge of business processes and understanding the language of business would help increase their success. Mr. Gupta stated that as graduates from the Florida universities are hired, they progress through rotations in the business, working closely with business partners and learning how technology plays a role. He stated the challenge is in the availability of local mid-career talent and the relocation costs for recruiting people from other states due to the real estate market in Florida. Mr. Gupta concluded that it is in the company's best interest to build talent in Florida to retain the talent.

Chair Silagy then asked the panelists what the State University System graduates need regarding exposure and skills related to business.

According to Mr. Gupta, partnerships with businesses that offer students a chance to work while progressing through the undergraduate or graduate programs would be beneficial. He reported that many universities graduate students who complete projects for companies, which also provides students with early exposure to technology and business, including, for example, business financials. In addition to projects, Mr. Gupta said internship opportunities allow students to learn the job and learn the industry.

Mr. Megally commented that he was in a functional role following his degree completion. He could code functionally; however, he did not understand why he was coding, the intensity of the project, why testing is important, and many other non-technical skills. He said universities could include the business functions for students to understand the “why” in order to develop these skills. Additionally, Mr. Megally stated that partnering with businesses and having executives and leaders assist with in-class training would provide needed real-world training.

Chair Silagy stated that internships are a critical part of developing the talent pipeline. Mr. Megally agreed, stating their internship program was restructured to allow the student to work within various departments to get a complete overview of the organization.

Chair Silagy asked the panelists about the challenges of attracting talent around cybersecurity.

Mr. George said cybersecurity in terms of senior talent to entry-level talent is a highly specialized field that takes a special kind of individual to be interested and committed to a career in cybersecurity. He reported cybersecurity is not a wide field such as digital or IT where skills can transition from one area to another. Mr. George said the armed forces and the defense organizations have been an area from which to recruit talent. He stated there is a dearth of talent in all aspects of cybersecurity as tools and knowledge of the tools change rapidly. He also stated that he does not think the education system across the country is appropriately training students as cyber-ready job recruits.

According to Mr. Gupta, the two most highly compensated jobs in the digital industry are big data and cybersecurity, and attracting and retaining talent is challenging because every company has vacancies. He continued stating that government organizations are great hiring grounds. However, it takes time for those hired from government agencies to learn about the business. Mr. Gupta noted that salaries are consistently being revisited to retain employees, as many companies will pay more. He said, additionally, there is a challenge with working remotely because, in cybersecurity, the employee needs to be on-site protecting the company they are working for. Mr. Gupta said that to develop more talent from the university system, there should be an effort to increase the awareness of cybersecurity and encourage enrollment in the program. He reported a gender gap with more males than females; however, this is not a gender-specific job.

Chair Silagy asked the panelists about the average starting salary for a recent college graduate in a data science or cybersecurity role.

Mr. Gupta stated that the hiring salary varies with the region. He noted that the average salary of \$70,000 is possible, with some tech companies hiring up to \$110,000.

Chair Silagy then asked the Board members for any questions for the panelists.

Governor Jones asked the panelists to describe the dialogue between companies and the universities regarding the skills graduates need for these jobs.

Mr. Gupta said there are discussions with various colleges on a one-to-one basis. However, the System's discussion has been lacking. He described their collaboration with Miami-Dade College on a cloud program, and he believes the learning and best practices from this program could be duplicated across the university system. Mr. Gupta stated that this would eliminate the piecemeal approach.

Mr. George stated that his company has some significant partnerships with universities. He reported that the universities perform extended work for the company, providing research and cyber penetration testing as examples, while the company helps in creating testing expertise among the students. Mr. George said his company has identified talent needs in data analytics and data science, cybersecurity, and cloud-based engineering and has partnered with universities to develop talent around these needs. The partnership allows company leaders to engage with faculty as guest lecturers or other participants in project-based learning.

Mr. Megally said that they are often directed to participate in a career fair when they approach a university. He stated that greater engagement with the leaders of the institutions versus providing information about available jobs would be a better approach.

Governor Kitson noted that the SUS produced approximately 10,400 graduates this past year with the potential to gain employment in the IT industry. If students across the country are not job-ready, as previously commented, he asked what could be done to

make them job-ready. Chair Silagy continued by asking the panelists what they would recommend the curriculum include to make graduates ready to enter their companies following graduation.

Mr. Megally said students should be taught how business happens in the real world, such as how to be involved in a strategy session and how to be involved in the user experience and transformation. He stated that the non-tangible part of the job should be a part of the curriculum, and the student should understand “why” an organization does what it does.

Mr. Gupta reported that the probability of an undergraduate student being hired quickly is high if the student has participated in an internship and has completed certain business courses to understand what the business is doing and why.

Mr. George commented that the career service directors had done a very good job at some of the universities with which his company has engaged. He stated there is room and space for a student who wants to specialize in computer science as a career. Mr. George said that to be successful in an organization similar to his, one must be a non-one-dimensional technologist, understand business, have a passion for technology, and have a willingness to learn. He recommended that career guidance to their path early would be helpful. He also stated that the university could facilitate student understanding of the breadth of career opportunities. In addition, Mr. George said closer engagement between businesses and universities would be helpful.

Governor Stermon asked the university presidents if there is a demand problem or a capacity problem in producing more student graduates in these areas. He asked how the Board might assist in solving the problem.

President Rosenberg from Florida International University commented that it is a “fit” problem. He said the System produces ten to eleven thousand degrees a year in these domains, and we recognize that practical experience is critical. He stated internships are a great way to bridge the gap between capacity and demand and asked how many internships on an annual basis that each company provides to students in Florida.

Mr. George reported that Carrier Global Corporation offered 86 engineering and digital internships last year in Florida and offered over 200 internships across all areas.

Governor Stermon asked if the system increased the number of degrees from ten thousand to twenty thousand, would students be lined up to do this or not.

Mr. Megally said the partnerships need to be strong with the universities to create a funnel of cybersecurity, data science, and engineering graduates and asked how to create more strategic partnerships.

Governor Stermon questioned whether students want these jobs and asked if there is student demand for these programs, if these programs are difficult to get into, if these

programs have waiting lists for enrollment, if these classes are full, or if capacity is adjusting to what demand exists.

President Avent stated there is limited demand at Florida Polytechnic University. He stated that the number of students declaring engineering as a major coming out of high school with high SAT scores over 1200 is small.

President Saunders from the University of West Florida said the internship must be built in the curriculum from the day the student gets to the university because a student taking an entire semester away will have a financial impact. She asked if every internship must be an entire semester or whether it could be eight weeks or four weeks and if students need to be there all day every day. President Saunders said matching an internship with student needs, finances, and the curriculum is essential.

President Currall from the University of South Florida agreed partnerships are key, and businesses involved with internships and curriculum are critical. He also said there needs to be an outreach to the high schools to get students excited about cybersecurity, data analytics, and the cloud.

President Kelly from Florida Atlantic University stated that the deans and department heads would know who may benefit the companies and suggested that a company employee be involved on the advisory boards. He said this would help institutions better understand what should be done to prepare students for jobs within the company.

Chair Silagy asked the panelists how many university presidents and department chairs they met in the Florida institutions.

Mr. Gupta said he had personally not met any of the presidents in the Florida system. . He reported that team members from his company had been actively involved in starting programs and advising on curriculum, which does help to build the relationship.

Mr. Megally also said that he had personally not met any of the presidents. He stated that several officers within the company had instructed a course and commented that they need to work on the continuity of the relationship.

Mr. George also reported that he had not personally met any of the presidents. He said there are strong relations with universities in other states and said they recently opened a hub in Atlanta because of the available talent and relationship with Georgia Tech.

President Currall commented that he had observed the strengthening of relationships between businesses and universities with the designation of an Industry Liaison Officer who is tasked with and held accountable for managing relations, thereby contributing to continuity. He said businesses change quickly, and higher education is trying to adjust. Someone who manages the boundary between the industry partners and the university can be a great asset in deepening the relationship.

President Cartwright from the University of Central Florida (UCF) echoed President Currall's sentiment about a point of contact to expand partnerships with businesses and stated there is a necessity to get industry needs across multiple disciplines. This is not an issue only in computer science. He noted that UCF has worked with a number of industry partners in cyber defense, and UCF has won the national championship in cyber defense competition four out of eight years. President Cartwright attributed this to those students having had the opportunity to work with a number of industry partners. He concluded by stating that the more real partnerships working collaboratively and advancing the preparation of our students, the better it is for us and the better it is for our industry partners.

President Martin from Florida Gulf Coast University stated that all are in agreement regarding the need for developing students' soft skills. He said that we must also meet the accreditation requirements. President Martin provided the Accreditation Board for Engineering and Technology (ABET) as an example, which dictates a great deal of the required curriculum. He said that it is important to have conversations with accreditors about the changing realities for our students.

Governor Jones asked the university presidents what is being done to encourage partnerships with businesses. He asked if there is an outreach from the private sector to form partnerships.

President Avent reported that Florida Polytechnic University currently has 240 industry partners and industry advisory boards for all programs, which he said helps shape the programs.

President Currall commented that establishing partnerships is a shared responsibility with both companies and universities reaching out. He stated that USF created the position of Vice President of Jobs, who is reaching out to companies and identifies a specific person for companies to contact. President Currall also suggested that companies develop scholarship programs for students in financial need, which would provide a pipeline for students moving forward.

President Robinson said the corporate sector has been aggressive in partnering with Florida Agricultural and Mechanical University. He said the university has had an industry cluster program for many years, allowing students to progress on a pathway to the corporate sector.

Chair Silagy thanked all of the panelists. He stated it is incumbent on all to ensure we meet the customer's needs, and the panelists are the customers of the State University System. Chair Silagy challenged the university presidents to ask the department chairs how many industry relationships have been established and ensure the industry needs of today are understood. He concluded by encouraging company leaders to reach out across the universities because there is an opportunity to fill a national gap with Florida students and provide a holistically prepared graduate to enter the workforce.

Governor Lamb stated this is one of our bigger opportunities looking forward and asked if the System is organized around this to go to market and compete at the national level in the space of technology, cybersecurity, and digital.

4. Concluding Remarks and Adjournment

Having no further business, Chair Silagy adjourned the meeting at 9:32 a.m.

Eric Silagy, Chair

Lynn Nelson, Ed.D.
Director, Student Affairs