

DRAFT

**FLORIDA POLYTECHNIC UNIVERSITY
BOARD OF TRUSTEES
BOARD RETREAT: DISCUSSION OF GOVERNOR SCOTT'S LETTER
MEETING MINUTES
Florida Industrial and Phosphate Research Institute
1855 W. Main St., Bartow, FL 33830
June 7, 2017 @ 1:00 PM**

I. Call to Order and Welcome

Chair Frank Martin called the Board Retreat back to order at 1:20 pm.

Florida Industrial and Phosphate Research (FIPR) Institute Executive Director Brian Birky welcomed Trustees to the FIPR Institute property. He gave an overview of the history and purpose of FIPR Institute.

II. Attendance

The following Trustees attended: Chair Frank Martin, Vice-Chair Don Wilson, Trustee Jim Dewey, Trustee Philip Dur, Trustee Sandra Featherman, Trustee Dick Hallion, and Trustee Jacob Livingston.

Staff present: President Dr. Randy Avent, Dr. Terry Parker, Mr. Mark Mroczkowski, Mr. Kevin Aspegren, Ms. Gina DeJulio, Mrs. Maggie Mariucci, Mr. Rick Maxey, Mr. Scott Rhodes, Dr. Kathryn Miller and Mr. Kevin Calkins.

III. Discussion on Governor Rick Scott's Letter

Mr. Rick Maxey provided an overview of the letter that Governor Scott sent to all Florida College and University presidents and boards of trustees. His letter requests that college and university boards discuss a set of six questions. Minutes of this meeting will be prepared in addition to a formal written response to the questions and sent to the Governor.

Questions and Discussion:

Question 1: "How are your institution's degrees matched to the top job opportunities in Florida?"

The Governor provided a recent list of top job areas in the state from the Department of Economic Opportunity as a reference. Mr. Maxey presented a chart that lists each Florida Poly degree that matches with the top ten job fields in Florida. Florida Poly offers one or more degrees in six out of the top ten job fields.

Trustee Don Wilson stated when Florida Poly was first getting started, the University hired two separate firms to analyze future STEM-related job opportunities. This information was used to

design the University's original degrees and curriculum. From the beginning, the University's degree offerings were designed to line up with the top job opportunities in Florida.

Trustee Jim Dewey said it is difficult to project top job opportunities since they are based on the available talent. What future jobs look like depends on what the University does. He also stated that one cannot grow the economy based on current job opportunities available now.

Chair Frank Martin stated that the top ten job fields can change monthly based on historical evidence. He also mentioned that in addition to the two firms that Florida Poly retained, the University held an Industry Summit in the fall of 2013 where industry leaders from across the state participated in a half day of round table and large group discussion which also influenced the University's degree offerings and curriculum. As the University begins work on a new strategic plan, the University will research new job fields in order for the degree offerings to remain relevant.

Trustee Sandra Featherman stated that Florida Poly is especially unique since all of the University's students are being trained in six out of the ten fields identified. No other college or university can make that claim.

Florida Poly's data shows that not all graduates responded to a survey about post-graduation employment. The graduates were contacted multiple times in an effort to collect this information. Mr. Maxey said there is a system in the state that tracks where people are employed; however, it takes almost eighteen months for people to show up in the system. This data is what the Board of Governor uses to determine performance based funding. Most universities are tracking alumni who graduated 18 months ago. Florida Poly's alumni information is very current. Chair Martin inquired how Florida Poly is staying connected to alumni in order to track and collect data. Mr. Kevin Aspegren answered that all students are engaged in the alumni association prior to their graduation.

Trustee Philip Dur stated Florida has pockets of cutting-edge high-wage employees in the aerospace industry (five Florida Poly interns are at Lockheed Martin and Northrup Grumman this summer) yet not one school in Florida has a marine engineering degree or a naval architecture degree. Employers in Florida have to recruit out of state for these high-tech high-wage jobs because Florida's colleges and universities are not meeting the demands for graduates in those disciplines.

Trustee Jacob Livingston inquired if the Governor has considered including entrepreneurs and new business startups. Many Florida Poly students have potential to create new jobs vs. just filling jobs. Mr. Maxey answered that, yes, there is excitement about Florida Poly's focus on entrepreneurship in high-tech areas, citing that the University received funding for this last year. However, these numbers are not factored into these questions. It is a strong desire of Florida Poly that metrics on entrepreneurship be developed and included in the future.

Chair Martin mentioned an article he read this week about the number of patents recently approved. Four universities in the SUS are listed in the top twenty. President Avent stated that one has to be careful because the number of patents is not what is most important. Anyone can patent anything they want. The real metric is how many people are licensing the patents.

Trustee Dewey asked if the University's answers in Table 1 make a strong case for Florida Poly since not all of the data is available. Trustee Dewey also questioned the list in Table 1 as to where there are a lot of openings in these fields and how that correlates to where wages are going up faster and where people are being trained in these fields. Trustee Dewey also pointed out that under "Management Analysts", the University's Science and Technology Management degree should be listed.

Question 2: “What is your institution’s job placement rate for graduates of your two most popular degree programs?”

This was mostly discussed under question one. Chair Martin stated the need to update the data for the total number of graduates to 38 and differentiate undergraduate from graduate students in the data.

Question 3: “How has your institution spent the record state funding in higher education?” Attached was a six-year funding history for each college and university in Florida.

Mr. Maxey reviewed Florida Poly’s written response to this question that shows a high-level view of how the University has spent state funding. Trustee Wilson questioned the answer to number nine “Established more than 90 industry partners.” There are actually several hundred. Mr. Kevin Aspegren will work with Mr. Maxey to provide a correct number of industry partners currently working with Florida Poly. They will also include a definition of “industry partner”.

Trustee Dur commented that how a start-up university spends state funds is fundamentally different from an established university. While it is hard to measure return on investment right now since the University is so new, he recommended whether it be in dollars or hard numbers in graduates trained for disciplines in which they are employed, it is useful to correlate expenditure of funds to a return to a very generous State public. The public has a right to know the return on their investment.

Question 4: “What is the return on investment from the record state funding in higher education?”

In addition to the written response prepared for the Governor, Trustee Dur recommend staff add that Florida Poly will be matriculating students who can serve Florida-based industries, not just grow new industries, but serve existing ones who are in need of technical graduates. Trustee Dewey also added that Florida Poly is graduating students who will make a good living. Trustee Wilson commented that companies will want to come to Florida because the skilled people they need to hire will be located here.

Question 5: Two-part question – “In response to my ‘Finish in Four, Save More’ challenge, what steps has your institution taken to get students graduated within four years? How have you worked with your college or university partner to assure students a seamless transition?”

Trustee Wilson stated that one step has been to virtually not charge tuition.

Trustee Dur shared that the community college system is trying to establish a more robust set of courses that can translate into four-year institutions. These courses must ensure they have adequate rigor so the student can be successful when transitioning to a four-year school. President Avent stated that most Associates degrees are more “technicians” degrees without the academic rigor. However, the state colleges that Florida Poly has collaborated with have been very open to our suggestions on how to establish more robust course offerings. Trustee Featherman agreed that the college system wants to assist the university system and see students be successful. What students need most coming into Florida Poly is calculus, which is one area where the college system could do more to assist with transfer students.

Mr. Scott Rhodes, Vice Provost Enrollment, shared that Miami Dade College has all of Florida Poly’s program sheets and they are articulating every course for both Associate of Science and

Associate of Arts degrees. Florida Poly currently has several students who transferred from Miami Dade and they have been excelling in the University's engineering tracks. Once the Miami Dade agreement is complete, Florida Poly can go to other colleges with this template. Chair Martin said it is good to start with Miami Dade, as they are the largest state college and have a great reputation.

Florida Poly and Polk State College have a joint grant proposal for grant money to assist students who are transferring.

Provost Dr. Terry Parker has been working with Mr. Rhodes and Dr. Kathryn Miller, Vice Provost Academic Support Services, to address the calculus issue from a transfer student perspective. A program called 'Alex' is available to students before they arrive at Florida Poly. The University can also decide to teach college-level pre-calculus for students who are academically talented but do not have any calculus in their prior coursework. Trustee Dewey agreed that teaching pre-calculus would open up a new pool of exceptional talent.

Discussion occurred regarding credit hours. An average semester load at Florida Poly is 14.3 credit hours. Ambitious students take larger class loads. Mr. Kevin Calkins stated that the median is close to that same average - the spread is not large. Trustee Livingston has taken 16 credit hours one semester and 14 credit hours a second semester in order to meet Florida Poly's 30 credit hour requirement per academic year in order to keep his scholarship. With the requirement to take a minimum of 9 credit hours in summer sessions, a Florida Poly student can still graduate in four years. Dr. Parker stated that a traditional student with good talent, who can identify his major early in his college career, could graduate in four years. However, many students have bumps in the road such as changing majors, financial issues or a difficult time with gatekeeper class such as calculus. These all create roadblocks to finishing in four years.

Question 6: "Has your institution implemented any new internship programs?"

Mr. Maxey reviewed a list of over 90 distinct companies who are providing summer 2017 internships for Florida Poly students. Trustees congratulated staff for an outstanding job in developing these opportunities and recognized that achieving accreditation will only serve to boost the University in this area.

Trustee Livingston stated that he has student friends interning at Lockheed Martin and at Northrup Grumman who love what they are doing. Providing internships at key companies like these is a good marketing tool for new students. Participation in an internship is a leading indicator for getting a job.

Chair Martin inquired about cooperative education. Staff replied that co-ops have been discussed but an institution needs a high-tech industry around them to make them work. This is not a high priority.

Chair Martin thanked everyone for their participation in this discussion. The meeting adjourned at 2:20 p.m.

DRAFT

**FLORIDA POLYTECHNIC UNIVERSITY
BOARD OF TRUSTEES
STRATEGIC PLANNING WORKSHOP
MEETING MINUTES
Florida Industrial and Phosphate Research Institute
1855 W. Main St., Bartow, FL 33830
June 7, 2017 @ 2:30 PM**

I. Call to Order

Chair Frank Martin, called the Strategic Planning Workshop to order at 2:39 pm.

II. Present

Trustees present: Chair Frank Martin, Vice-Chair Don Wilson, Trustee Mark Bostick, Trustee Jim Dewey, Trustee Philip Dur, Trustee Sandra Featherman, Trustee Dick Hallion, and Trustee Jacob Livingston.

Staff present: President Dr. Randy Avent, Dr. Terry Parker, Mr. Mark Mroczkowski, Mr. Kevin Aspegren, Ms. Gina DeJulio, Mrs. Maggie Mariucci, and Mr. Rick Maxey.

III. President's Strategic Planning Discussion

President Avent began with the request that there be discussion among the Trustees throughout this presentation. The President welcomes Trustees' thoughts and questions regarding the 2017-2018 strategic plan.

Today is the first step in discussing a new strategic plan for 2018-2022. The President's goal is to have a final plan in place by March 2018. He plans to meet individually with each Trustee this summer to review the plan in detail, then write positioning statements and derive goals and objectives.

President Avent used the allegory of the feedback loop from control theory to describe the strategic planning process. Discussion occurred on the appropriate length of a strategic plan and several options were reviewed: five-year plan; three-year plan; five-year plan with an evaluation at the end of the third year; ten-year plan that is evaluated every two years. The three-year plan may be ideal due to the rate technology progresses. It certainly would be more flexible. SACSCOC requires a five-year plan. Chair Martin stated five-year plans are typical in the transportation industry. However, there is a desire for Florida Poly to remain nimble to address market changes. A two or three-year plan is more reasonable to stay ahead of the curve. President Avent then suggested a five-year "vision" with shorter "plans" embedded.

Current Status:

Student population drives programs, faculty and housing needs. Faculty growth drives staff growth. Staff growth and housing needs drive facility needs, which drives the budget and metrics.

Student quality: President Avent compared incoming class size with normalized SAT scores. Now that Florida Poly has met the mandate of 1244 FTE, the standards for admission can be raised. Retention rates for each year roughly correlates with SAT scores. Students with lower SAT scores in math had a harder time once they were at Florida Poly. Mr. Scott Rhodes and Dr. Terry Parker have been more active in shaping the newer incoming classes for quality and retention purposes.

President Avent compared SAT and ACT data to other institutions in the SUS. With the incoming class (2017-18) the goal of increasing selectivity to improve academic quality begins. Florida Poly should be the most selective school in the state. Trustee Sandra Featherman stated being the most selective is less important than giving the most students the opportunity to excel; there is a need to be more diverse. Florida Poly should be “easy to get into and harder to get out of.” President Avent responded the downside is retention can be poor. Should the University increase retention at the expense of watering down the curriculum?

President Avent referred to an MIT program that uses MOOCs for a student’s first year and based on their success will admit them to the school. Another school has the students come tuition-free for their first year and, again, based on their success will admit them to the school. Trustee Dewey stated if a student comes and finds out the University is not for them and they transfer to another state school, they have learned a valuable lesson. That is a win for the student and for the state of Florida.

Trustee Don Wilson stated his concern with enrollment projections as so much of state politics is driven by numbers. What is the benefit of enrollment growing when so much is dependent on Florida Poly getting funding for buildings, faculty, etc.? President Avent stated the University is already over capacity, which is another reason to slow growth somewhat. Trustee Philip Dur said if an institution aspires to continually improve the quality of the student, to develop the breadth of programs offered to the student, and as faculty get better and better at teaching, the institution attracts a better and better student. Dr. Parker responded that the brand of Florida Poly is driven by something that has a long time scale, that is, the success of our graduates and their value to employers.

Student retention: President Avent reviewed retention rates of the first two cohorts. The rate will be less for the third year. Chair Martin inquired how this compares with other SUS institutions. Mr. Kevin Calkins said the state looks at academic progress rate, which looks at first year retention from the standpoint of FTIC and a GPA of 2.0. The average in the last reported year was 85.9%, with the lowest university at 70.1% and the highest at 90.4%. Nationally, engineering programs average low retention and student progression rates. Chair Martin asked why students left Florida Poly. President Avent responded that the University needs to do a better job with conducting exit interviews but staff can provide data on how many students left to go to other universities. Trustee Dur said that industry internships could make a difference in retention as well.

Demographics: The three highest counties represented by Florida Poly students are Polk, Hillsborough and Broward. The number of Polk County applicants is going down each year. Florida Poly is one of two state universities that was not created as a regional university; therefore, the University should be true to that mission and recruit students from across the state of Florida. Deposits went down in 2015 because the University was unable to build a second dorm. Deposits went back up in 2016.

What should Florida Poly’s out-of-state and international student population be? Trustee Wilson stated that having them would increase the University revenues. Trustee Featherman feels Florida Poly is a state institution to serve state purposes. She is not against recruiting some out-of-state and international students but the primary purpose should be to serve Florida students. Trustee Dur said if our students were graduating with great jobs, it would attract out-of-state students. Trustee Dewey stated a huge driver of economic development is talent supply and students tend to find jobs near where they are from so the ROI for out-of-state recruitment may be minimal. President Avent also felt SAT scores in Florida could limit the institution.

Mr. Rhodes shared that the lack of marketing for organic leads affected the application pool this past year. He will redirect marketing dollars this year to increase applications. Having federal aid available will also help with enrollment numbers.

Demographics – gender diversity: Nationally, engineering schools average 21% female to 79% male. Enrollment is focused on recruiting female students. There will be a 2% increase in female students this fall to 14%. Other initiatives to attract female students include designating a female-only wing in the dorm

with female-only RAs and developing degree programs that are attractive to females. Trustee Wilson asked if the University should be 100 % STEM. It limits diversity.

Demographics - racial diversity: Florida Poly's racial diversity is comparable to national figures. Florida Poly is still looking to increase racial diversity with a program similar to MIT's Beaver Works. The University asked for legislative funding for this program last year but did not receive it. This program targets gifted and talented minorities and under-served populations. Florida Poly will repeat the request for funding this year.

Program Offerings: President Avent reviewed the current colleges and degrees. Dr. Parker will review program changes in more detail in the Academic and Student Affairs Committee meeting. Changes have been made to degree program names to align with ABET accreditation requirements. Concentrations are also being reviewed/re-named, and in the case of the Graduate program, concentrations are being added so the Masters degrees are more specific.

New Degrees: SACSCOC prevents Florida Poly from adding new degrees until after the University receives accreditation. Similar sized universities have 15-20 degrees to offer students. Florida Poly needs to begin discussion of 3-5 new degree programs along with the faculty requirements for each. Trustee Dur expressed his support for aerospace and naval engineering programs. Based on data from Hanover Research, staff and faculty have begun to identify high potential programs based on relative employment and wage growth for each. Other considerations include the SUS strategic plan; performance based funding; gender diversity and potential for retreat majors. President Avent desires a strong industrial design program, which would help gender diversity and be a good retreat major. Currently, there are no industrial design programs in Florida. IT management and biomedical engineering may be good programs to consider. Trustee Featherman suggested chemical engineering, which also promotes gender diversity. President Avent also suggested financial engineering as a master's program. Dr. Parker stated the challenge is to find degrees that have common names but offer uniqueness to Florida Poly.

Performance Based Funding (PBF): President Avent reviewed Florida Poly's 2017-18 scores in the PBF model. The University scores high on several items with a margin for change on some items that still keeps a high score. Should Florida Poly add some non-STEM programs that gain points in retention and graduation rates? President Avent does not think it wise to deviate too much from STEM. Trustee Featherman said the University should argue when we present our data that our institution cannot meet some of the criteria because the University was not set up to do so. Should all of the universities be compared the same? Mr. Maxey responded that the BOG has been asked to re-evaluate how universities are compared. Universities should be based on metrics aligned to the purpose of the university; in Florida Poly's case, as an all-STEM school. It is most likely Florida Poly will not stop being a STEM school even though the charter says the University only has to be 50% STEM. Trustee Wilson stated the addition of science management or technology management programs should be considered.

Graduate Programs: There are three categories of graduate programs: traditional, professional science masters and professional masters. Florida Poly needs to define which one the institution offers. Trustee Featherman stated the University needs more than one graduate strategy. She felt strongly about professional programs that are offered as evening or weekend classes since there is a market for them.

Faculty/Staff Growth: President Avent stated the University has under-hired faculty. He believes achieving accreditation will help, including have a ".edu" on the website. The majority of Florida Poly's faculty are young with less than three years' teaching experience.

Faculty Loads: The average course load for faculty is three courses per semester, which is comparable to other universities. Faculty-to-new course ratios have been very high at 2.5 to over three, which has limited faculty's ability to do research. That said, grant proposals are increasing. Does Florida Poly want to be a research-focused university? This requires more discussion.

President Avent reviewed the Government Definitions of RDT&E followed by the “Valley of Death” chart. He discussed the need to focus on hiring scholar-practitioners with industry experience and rewarding faculty engagement with industry providing mutual benefit.

Fast Growth Plans: President Avent stated when Florida Poly built the second dorm it was built to match the capacity of the IST building. However, the IST building has no research space and limited office space. Once the ARC and administration buildings are built, the University will comfortably accommodate 2,000 students over the next 10-15 years. The earlier projected goal of 5,000 students will not happen anytime in the near future.

Legislative Budget Issues: Operational budget increases to Florida Poly have been larger than average since 2014; however, the University has struggled to secure capital funding for various reasons.

Budget Benchmarking: President Avent reviewed a chart, which compares where monies are spent compared to other SUS and data from the Chronicle of Higher Education.

Staff/Faculty Growth: Progress has been made towards better balancing the faculty to staff ratio. There is currently a freeze on staff hiring. Sixteen faculty will be hired for the coming academic year.

Future Plans:

President Avent reviewed external trends that staff and faculty have identified as items that could affect the University. He shared about rising costs of higher education and decrease in revenues as well as the cost/value proposition. Many of today’s students question the value of a college degree. Public support for colleges and universities has declined as well as Pell and federal research funding. Pedagogy is also changing. Florida Poly is exploring software-managed pedagogy to increase opportunities for students. New business models are emerging which should be considered. Trustee Featherman expressed interest in micro-credentialing for which there is a large market.

Due to time constraint, the Board of Trustees Retreat adjourned at 4:30 p.m.