CAMPUS INFORMATION

Campus: SUNY Polytechnic Institute
President: Dr. Alain Kaloyeros
Chief Academic Officer: Dr. William Durgin
Chief Financial Officer: Scott Bateman
Performance Improvement Plan  
SUNY Polytechnic Institute  

SECTION I:  
Introduction  

SUNY Polytechnic Institute is a doctoral degree granting college, focusing on STEM disciplines located in Utica and Albany, NY. With 244 full-time and part-time faculty and 248 state supported staff, SUNY Polytechnic Institute serves nearly 3000 students in 46 degree programs at the bachelor’s, masters, and PhD level. Our students come from local communities, across the state of New York, throughout the United States, and around the world.  

SUNY Polytechnic Institute’s faculty are frequently called upon for their expertise. Awards they have earned include board and academic society memberships, editorships, and individual professional achievement awards. In addition, faculty scholarship has increased significantly with growth in sponsored research, publications, creative works, and performances.  

Mission / Standing  

SUNY Polytechnic Institute serves as an intellectually vibrant, creative, and stimulating environment for innovation, education, and outreach that prepares its students to apply basic and applied knowledge to challenges, complexities, and opportunities of a modern technological society.  

Among our peers, SUNY Polytechnic Institute is regarded as a leader in science, technology, engineering, math, business, and nursing.  

SUNY Polytechnic Institute distinguishes itself through excellence in teaching and research and New York State economic impact.  

To remain competitive with its peer institutions, SUNY Polytechnic Institute must strengthen its reputation and its degree programs.  

Program Mix / Centers / Distinct Programs or Activities  

Our academic program mix includes programs designed to meet state needs such as engineering, nursing, business, science, and manufacturing. These programs are designed to foster a strong foundation in the STEM disciplines and lead the way in new and emerging fields such as Cyber Security, Nanoscale Science, Nanoscale Engineering, Nanoeconomics, and Nanobioscience.  

We are currently developing plans for several advanced certificates in response to New York State industry needs. For instance, there is significant demand for continuing education and development of local professionals.  

We are also exploring expansion of our fully online offerings which presently stand at 4 degree programs and 150 courses. SUNY Polytechnic Institute has just begun the Open SUNY Institutional Readiness Assessment.  

SUNY Polytechnic Institute is home to the Smart Cities Technology Innovation Center (SCiTi) in Albany, the Solar Energy Development Center in Halfmoon, the Photovoltaic Manufacturing and Technology Development Facility in Rochester, the Smart System Technology and
Commercialization Center (STC) in Canandaigua, the Computer Chip Commercialization Center in Utica, the Marcy Nanocenter site, the Central New York Hub for Emerging Nano Industries in Syracuse, the Buffalo High-Tech Manufacturing Complex, the Buffalo Information Technologies Innovation and Commercialization Hub, and the Medical Innovation and Commercialization Hub in Buffalo. With this depth of innovation and economic development investment, SUNY Polytechnic Institute serves as a primary economic driver for the Albany-Capital, Central New York, Finger Lakes, and Western New York regions.

SUNY Polytechnic Institute is active in applied and experiential learning, with capstone and senior project requirements. Students interact regularly with our research programs that generate approximately $330 million in R&D funding.

Post-Graduation Success

SUNY Polytechnic Institute recognizes that the SUNY system is negotiating an MOU with the New York State Labor Department so that we will be able to better track the job attainment of our graduates. This will supplement existing surveys, information yielded from our career placement office, information from internships which turn into full-time employment and the work of our alumni office.

Alumni/Philanthropy

SUNY Polytechnic Institute alumni are not only tremendous advocates for the campus, they contribute to the campus in many ways including endowed scholarship funds. We currently have 25,000 alumni with an active alumni association that attracts 3,000 people to events annually. Further, SUNY Polytechnic Institute has initiated efforts to dramatically increase alumni participation.

Strategic Plan / Excels Goals

SUNY Polytechnic Institute is developing a new five-year strategic plan with widespread faculty, staff, and student input. The major objectives are to: increase graduation rates; expand enrollment, and physical facilities; and strengthen our reputation.

SUNY Polytechnic Institute shares SUNY’s overall commitment to SUNY’s Completion Agenda and SUNY Excels. This will be reflected in reports on our progress towards our strategic priorities.

Consistent with the information above, SUNY Polytechnic Institute’s priority areas of focus include: increasing enrollment; improving quality metrics; improving first- and second-year student retention; increasing graduation rates; increasing sponsored research activity; increasing diversity among faculty and staff; increasing EOP and CSTEP engagement at both the Utica and Albany sites; extending applied learning experiences across all undergraduate and graduate programs; driving NYS economic development; providing a capable workforce; and securing additional partners for START-UP NY.

We are setting goals in each SUNY Excels focus area as shown in Section 2 of this report.

Environmental factors
SUNY Polytechnic Institute makes these commitments not only in the spirit of continuous improvement, but in recognition of current challenges and responsibilities. Recent SWOT analyses have identified internal and external factors that both enable and constrain SUNY Polytechnic Institute’s ability to achieve its goals.

**Investment Fund**

SUNY Polytechnic Institute, in its proposal to advance applied learning both at SUNY Polytechnic Institute and throughout the SUNY system has received approval of its white paper and has submitted a complete proposal for SUNY’s Investment and Performance Fund.

SUNY Polytechnic Institute proposes a High Impact Learning and Teaching Hub (HILT or the Hub) designed to promote and enhance experiential “learning by doing” pedagogy with a goal of achieving wide-spread adoption. The hub will formalize and expand upon the applied learning activity already occurring at SUNY Polytechnic Institute and provide a framework for broad adoption at all SUNY institutions. Additionally, it will capitalize on the industrial and community partnerships already established as part of the CNSE, Quad-C, and Innovation Centers to formalize research participation and senior project activity embraced by SUNY Polytechnic Institute and at other institutions.

This proposal aligns with SUNY Polytechnic Institute’s strategic priorities as outlined in this Performance Improvement Plan in that the goal of the program is to lead adoption of applied learning pedagogy both at SUNY Polytechnic Institute and across SUNY.

**SECTION II:**

1. **Full Enrollment Picture**

SUNY Polytechnic Institute is pursuing a planned growth in enrollment. The plan was constructed and implemented in order to enhance invention, innovation, knowledge, and New York State economic impact. This plan reflects a target of 3500 students by 2020.

<table>
<thead>
<tr>
<th>Enrollment Projects: Fall 2015 to Estimated 2020 Headcount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
</tr>
<tr>
<td>2082</td>
</tr>
<tr>
<td>2580</td>
</tr>
<tr>
<td>+24%</td>
</tr>
<tr>
<td>Graduate</td>
</tr>
<tr>
<td>711</td>
</tr>
<tr>
<td>920</td>
</tr>
<tr>
<td>+30%</td>
</tr>
<tr>
<td>TOTAL ENROLLMENT</td>
</tr>
<tr>
<td>2793</td>
</tr>
<tr>
<td>3500</td>
</tr>
<tr>
<td>+25%</td>
</tr>
</tbody>
</table>

The greatest increases are planned in the STEM fields of biology, computer science, engineering science, nanoscale science and nanoscale engineering. There is potential to achieve increases in the Family Nursing Practitioner program as well. New programs such as the BS in Interactive Media and Game Design, the MS in Systems Engineering, BS in Nanobioscience and the PhD in Nanobioscience would fuel additional growth. Formal articulation programs are being developed with our primary NYS community college feeder institutions in order to maximize transfer enrollments.
Residence halls in Utica are already at 100% of capacity and are not available yet in Albany, thus additional housing options on campus are imperative. Plans for a multi-phase, 500 bed residence hall complex in Albany are underway and planning for an additional 300 bed residence hall in Utica has begun.

Goal: increase enrollment to 3500 by 2020

2. NYS Residents Served by SUNY
Ninety percent of SUNY Polytechnic Institute’s matriculated students are New York State residents. This commitment will continue into 2020 and beyond. In addition, many New York citizens take courses as non-matriculates and for certificates.

SUNY Polytechnic Institute is committed to serving its local communities and state while recognizing the value of diversity to the academic and cultural climate of the institution. There are no area high school students currently enrolled in SUNY Polytechnic Institute.

Goal: maintain number of NY residents as a percentage of overall enrollment

3. Diversity
SUNY Polytechnic Institute vigorously pursues its statutory mission to serve a population reflective of the residents of New York State. Responding to the state’s changing demographics, SUNY Polytechnic Institute is working to diversify its students, faculty and staff. SUNY Polytechnic Institute is committed to increasing its percentage of domestic, non-white students from 13.7% in fall 2014 to 20% by 2020 by growing the EOP program from 58 to 75, participating in the CSTEP program beginning in the fall of 2015, adding a second admission staff member to our metro-NYC recruitment effort and making greater use of the SUNY recruitment office in Manhattan. We also plan to increase participation in community-based organizations such as OnPoint in Utica and Girls Inc. Eureka at the Albany site.

Goal: increase percentage of domestic, non-white students to 20% by 2020.

4. Capacity
SUNY Polytechnic Institute’s academic offerings via Open SUNY will be strengthened and increased. The hiring of a Director of Distance Learning will allow us to increase our enrollment in existing programs (BS in Nursing Ed, MS in Accountancy, MBA, BS in Health Information Management and the BS in Instructional Design Technology) and will help us create new ones.
Goals: develop degree programs in high-demand disciplines; strengthen and expand on-line programs in high-needs areas.

5. Completions
Initiatives include new degree programs in science and engineering. In addition, technological advancements in our teaching and programs have enabled five graduate programs and an additional undergraduate program (Health Information Management) to be offered nearly completely online. Orientation for all online graduate programs is available and a campus group is working on a similar online program for undergraduate programs. Together with the Nanoscale Science and Nanoscale Engineering degree programs resulting from the combined SUNY Polytechnic Institute sites, online programs plus science and engineering programs will result in significant enrollment growth, which will drive degree completions.

Currently SUNY Polytechnic Institute offers 46 UG/G programs, B.S. through Ph.D. Six more programs are in various stages of the curriculum development/approval process.

In addition to efforts to increase the number of entering students SUNY Polytechnic Institute is focusing on increasing retention and graduation rates – moving students through the pipeline faster by an investment in improved advising and more effective and efficient learning support. One goal is to get more students involved in undergraduate research with supportive mentors, which, has been shown to increase student persistence in STEM as well as other majors.

SUNY Polytechnic Institute has committed to increasing its first-to-second year retention to 85%. We arrived at this goal by reviewing the best performances in our sector and the performance of our aspirational peers. We anticipate an increase in six-year graduation rates from 43 to 60 percent and in four-year graduation rates from 24 to 32 percent due to our improvements in advising and mentoring. SUNY Polytechnic Institute will also increase the number of advanced certificate programs offered.

We estimate an overall increase in the number of degrees granted as follows:

<table>
<thead>
<tr>
<th>Total Degrees Granted</th>
<th>2014-15*</th>
<th>2020-21</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduates Degrees</td>
<td>423</td>
<td>508</td>
<td>+20%</td>
</tr>
<tr>
<td>Graduate Degrees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Masters</td>
<td>173</td>
<td>200</td>
<td>+15%</td>
</tr>
<tr>
<td>Graduate Degrees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Doctorate</td>
<td>0</td>
<td>15</td>
<td>&gt;100%</td>
</tr>
<tr>
<td>Certificates</td>
<td>3</td>
<td>7</td>
<td>&gt;100%</td>
</tr>
<tr>
<td>Total</td>
<td>599</td>
<td>730</td>
<td>+ 21%</td>
</tr>
</tbody>
</table>

*Source: Internal Banner Report

Goals: increase first year retention to 85%; increase six year graduation rate to 60%; increase number of graduates to 730

6. Student Achievement / Success (SAM)
Persistence is developed at SUNY Polytechnic through collaboration between the Director of Student Success and the Director of the Learning Center. An Academic Warning process is utilized whereby students in academic difficulty are notified, required to attend a meeting, and encouraged to take advantage of academic support available to them through tutors in the Learning Center. Follow-up takes place during the semester. In 2014, the Mathematics faculty at the Utica-site implemented a mathematics placement test for all incoming freshmen to more effectively assign students to the appropriate level of mathematics. Further, the Director of Student Success oversees the Early Warning System which notifies students at approximately the fourth week of classes regarding negative behavior which may translate into academic difficulty.

In the fall of 2014, there were 162 students on academic warning; for the fall of 2015, there were 126 students on academic warning. Based upon the above mentioned initiatives, success has been achieved with returning freshmen: 89 were on academic warning fall 2014, but this number was reduced in that class’s sophomore year to 37 fall 2015.

At the Utica site, the Director of Student Success responds to Degree Works questions, schedule issues, and some academic advisement ambiguities as well as assists students with institutional paperwork and academic petitions.

At the Colleges of Nanoscale Science and Nanoscale Engineering, the Director of Advisement advises all undergraduate students, who are provided with a “MAP” detailing the courses they need to take each semester. At the graduate level, each MS and PhD student is assigned a faculty advisor until such time as the student secures a Research Advisor. Graduate students are provided with detailed lists of the various curricular “tracks” open to them. Faculty at the Albany site are urged to inform personnel in Student Affairs as soon as possible if they see a student floundering, missing classes, etc. At the end of each semester all students’ records are reviewed by personnel in Student Affairs not only to see if someone needs to be placed on academic probation but also to note disparities such as dramatic decline in a student’s performance-the previous semester. In fall 2015, the Early Warning system at the Utica site was extended to cover students at the Albany site and this should also help with student success, retention and graduation rates.

Completion, according to attachment 2 Table 13, the 2013-14 total number of degrees/certificates awarded by the Utica site was 594. For 2014-15, the Utica site granted the following degrees: BA/BS 423; MS 173; CAS 3 = 599 total. Undergraduate 6 year completion rate was approximately 43%. The 2020 target is 60%. Concurrently, SUNY Polytechnic Institute seeks to reduce the Ph.D. completion time to an average of no more than 5 years.

Transfer of undergraduate students to SUNY Polytechnic Institute is robust. A fulltime transfer coordinator works with the Deans and Program Chairs to maintain transfer articulation tables and facilitate transfer credit support from major feeder schools. All articulation agreements are being renewed and new agreements developed.

Goal: increase number of graduates to 730 per year.

7. Graduation Rates
SUNY Polytechnic Institute’s commitment to increased graduation rates centers upon its commitment to improved retention and improved student support. Key activities and initiatives include: full implementation of Degree Works; campus-wide adoption of the Early Warning
System; improved follow-up with students by monitoring data from TutorTrac; better interventions for students on Academic Warning.

We anticipate a substantial increase in retention and an increase in 6 year graduation rate from 43% to 60% by 2020.

SUNY Polytechnic Institute began full implementation of Degree Works in fall 2014. This degree audit system assists students by making degree requirements and progress toward completion more transparent. The Student Success office has provided assistance to faculty members and individual students with regard to interpretation of the audit data. Students are becoming more pro-active about checking these audits and verifying progress with their advisors. The Registrar reports that Degree Works has allowed for easier clearance of graduates.

Goal: increase graduation rate to 60%.

8. Time to Degree
Typical polytechnic institutes/universities have relatively low 4 year rates (ASEE). SUNY Polytechnic Institute presently stands at 25% and seeks to increase to 30%. SUNY Polytechnic Institute has made a commitment to increase its 6 year rate to 60% which compares favorably to other polytechnic institutes.

At present, SUNY Polytechnic Institute does not have any guarantee programs (finish in 4); however, we are experiencing a greater number of incoming freshmen bringing advanced placement AP and college credit earned while still in high school. It is expected that the 4 and 6 year completion rates will experience increases as a result.

In addition, SUNY Polytechnic Institute has three accelerated BS/MS programs which help students with earlier transition into graduate study.

Every major program has a Practicum and/or a Capstone experience as part of its program core. These introductions to the real world projects assist students with career opportunities.

Goal: improve time to degree to 4.25 years.

9. SUNY Advantage
SUNY Polytechnic Institute has undertaken a number of initiatives designed to enhance student success. A number of these initiatives are in line with SUNY Advantage and Financial Literacy. Progress on each of the initiatives, along with continuous improvement plans, is presented below.

Applied Learning
SUNY Polytechnic Institute has made great strides towards the applied learning initiative. At each co-principal site, and in each of the five colleges of SUNY Polytechnic Institute, undergraduate students are provided opportunities to apply their classroom and theoretical education to real, significant, and valuable structured and unstructured, credit-bearing and volunteer opportunities in our business, research, health care and entrepreneurial communities. Applied learning includes independent research projects, service-based learning, project-based learning, internships, practicums, clinical training practicums and community volunteer service.
SUNY Polytechnic Institute’s unique relationship with industry and community agencies affords opportunities for applied learning. SUNY Polytechnic Institute currently partners with many technologically-oriented corporations as well as community and health-related organizations on its Utica and Albany sites. As an example, a recently established partnership with Sitrin’s Rehabilitation Military Rehabilitation and Neurological Disorders unit provides a shared faculty position and provides students with opportunities for service and project-based learning, independent research, interdisciplinary studies and internships.

The brief list of applied learning opportunities below provides an overview of the types of applied learning opportunities already available at SUNY Polytechnic Institute:

- **The College of Nanoscale Science and the College of Nanoscale Engineering and Technology Innovation:** Nanoscale Science and Nanoscale Engineering majors all graduate with applied learning experiences that are components of the curriculum. All undergraduates must complete a three semester capstone experience that culminates in a design project, experimental report, or novel device that is the product of hands-on research and engineering. Other courses in the curriculum expose students to the CNSE “fabs” where faculty and industry partners are building the next generation of integrated circuits. These opportunities often involve R&D partners and provide real-world projects for students.

- **College of Arts and Sciences:** Students pursue interdisciplinary courses, have engaged refugee population in Utica, and develop websites and other professional materials for business and not-for-profits. A summer outreach program for undergraduate students and supported by SUNY Passport engaged a number of faculty members. Undergraduate and graduate students engaged in research with faculty mentors in mathematics and physics in the areas of biomedical modeling, image analysis, and symmetry based mathematical and computational methods, and theoretical physics. The Psychology and Sociology programs offer student practicums in a wide range of community organizations focused on the development of resources as well as new programs for the community.

- **College of Health Sciences and Business Management:** Community and Behavioral Health majors pursue a two semester capstone experience that requires a service-based learning component involving community projects. For example, students conducted qualitative research involving breast cancer survivors, veterans returning from war and Utica Safe Schools. The research will be used by Faxton-St. Luke’s Healthcare Center, Sitrin Rehabilitation Center and Utica Safe Schools to provide further resources to their patients and students.

Nursing students engage in a number of clinical practica during their degree programs. Participating institutions include hospitals, clinics, and medical offices.

SUNY Polytechnic Institute broadly envisions Innovation Challenge New York (ICNY) as an annual student competition that transforms novel ideas into actions and greater quality of life in New York State. Students from SUNY Polytechnic Institute and partner institutions collaborate across disciplines to create innovative solutions to our area’s most challenging social and economic issues. The ICNY events combine the best of business modeling and innovation with collaborative design methodologies developed and used by architects, designers, and urban planners.
College of Engineering:  NCS450 Network Security students utilize project-based pedagogy within the classes. Engineering Technology programs capstone courses involving a service-based learning project. Students are assigned a project involving a real-world problem needing a technological solution. For example, students worked with Sitrin Rehabilitation Center on behalf of injured war veterans, disabled athletes and long-term nursing home residents on projects designed to improve the quality of life. Another project gained worldwide attention by completing a project that enabled an injured war veteran to continue pursuing his passion for golf.

More broadly, the SUNY 2020 grant program supporting CGAM (the Center for Global Advanced Manufacturing) and its SMARTT Laboratories (Science Moving towards Research Translation and Therapy) is supplying renovation of a significant portion of Donovan Hall. Design and fabrication facilities will be available and will include project based learning and maker space resources. Students engaged in applied learning supervised by faculty mentors, will be able to develop, research, and prototype novel inventions.

**Actions SUNY Polytechnic Institute will take in the next year to enhance applied learning and SUNY WORKS initiative**

- Develop a reporting system that enables our registrar and institutional research office to extract, report, and analyze the applied learning opportunities of our students. We are particularly interested in how applied learning opportunities improve learning outcomes, graduation rates, student persistence, graduate school acceptance, and job placement.
- Encourage our shared governance bodies to review curricular changes that allow faculty the flexibility to offer and oversee more applied learning opportunities for students.
- Connect more of our students with internship opportunities in our communities.
- Create a High Impact Learning and teaching Hub designed to promote applied learning partnerships, assessment and research, and training for faculty interested in applied learning applications in the classroom. The goal is to infuse applied learning into the curriculum across disciplines.

**Enhanced Co-curricular Supports and Opportunities**

SUNY Polytechnic Institute was recently awarded a five year CSTEP grant designed to increase the number of underrepresented and economically disadvantaged students in STEM and licensed professions. The program, currently in the implementation stage, will be delivered at both Utica and Albany locations and offer our underrepresented students unique opportunities to participate in internships with our corporate partners and research with faculty.

The CSTEP program and EOP create a community that fosters student support. Both programs strive to increase completion rates amongst economically disadvantaged students by providing tutoring and enrichment activities. SUNY Polytechnic Institute’s efforts to increase first-year retention for EOP students have been successful (2011 - 83%, 2012-94%, 2013- 86%), yet graduation rates continue to fall short. To address this issue CSTEP and EOP will be co-located providing an opportunity to share services while keeping the funding sources separate.

Overall student support was also enhanced during the 2014-2015 academic year with the creation of a Student Success Center located in the SUNY Polytechnic Institute Library. The purpose of the Center is to assist students with academic counseling, advisement and learning support in order to improve retention and completion rates.
**Actions SUNY Polytechnic Institute will take to enhance student success and SUNY Advantage**

- Continue to enhance the newly formed Student Success Center to broaden student reach and provide a one stop location for tutoring, general advisement and academic counseling.
- Develop partnership opportunities within STEP, CSTEP and other opportunity programs across the region.
- Request support to expand the EOP program.
- Bring the CSTEP and EOP programs together with shared leadership to provide an opportunity to build strong programs centered on student success. Enhance programming for CSTEP/EOP directed toward increasing completion rates.
- Continue to increase fulltime faculty.

**10. Financial Literacy**

Financial literacy is a priority at SUNY Polytechnic Institute. Successes in this area have been rewarded through low default rates. In 2011, the rate was 3.2% (2 yr.) and 6.3% (3 yr.) respectively in comparison to at 3 year percentage of 7.0% for State Operated institutions and 8.9% nationally. The Smart Track initiative through SUNY, provides an enhanced opportunity to educate our students on financial literacy. During the 2014-2015 academic year the “Smart Track Financial Avenue” program was introduced to the incoming EOP class. While this pilot group was modest in size, the feedback received informally was extremely favorable.

For the upcoming 2015-2016 academic year, a campus-wide effort to promote Financial Literacy is planned. Identified activities include: inclusion as a topic/activity in all First Year Seminar courses; strategic roll-out to our faculty, student organizations, and alumni; heightened presence on our institutional website; “Smart Track Tip of the Month” through community mailers and message monitors.

**11. Total Sponsored Activity**

SUNY Polytechnic Institute has taken a leadership role in Governor Andrew Cuomo’s goal to make SUNY an economic driver for New York State. SUNY Polytechnic Institute’s public-private model of research, development and economic growth is having a significant positive impact throughout New York. The merger between SUNY IT, which had a modest research portfolio, and CNSE, which had a very significant portfolio, has produced a research power house.

Data from the Research Foundation of SUNY indicates that from 2010 through 2014, SUNY Polytechnic Institute’s sponsored funds total expenditure increased 60% from 248 million to $413 million. In February 2015 it was announced that SUNY Polytechnic Institute had been recognized by NSF for leading the nation in business-funded research and development.

In July 2015 it was announced that SUNY Polytechnic Institute would lead the “American Institute for Manufacturing Integrated Photonics” supported by a federal grant of $110 million (http://www.governor.ny.gov/news/governor-cuomo-and-vice-president-biden-announce-new-york-state-lead-prestigious-national). This high tech consortium will develop and run a state-of-the-art photonics prototyping operation whose goal will be to integrate photonics component into computer chips, improving their speed, reducing their size, and increasing their reliability.

Growing the pipeline of young researchers through graduate and undergraduate programs and internships is a priority that will fuel economic growth. Fourteen new faculty members were
hired this year with the stated objective of maintaining a robust research funding portfolio and faculty diversity. Faculty members have participated in leadership roles in several of the SUNY Networks of Excellence whose pilot funding has already generated $837,000 from NSF.

The faculty at the Utica site of SUNY Polytechnic Institute have traditionally maintained a high teaching load which makes sponsored research productivity challenging. Nevertheless, numerous federally funded research efforts are underway. Additionally, the Utica site is the lead for the $15 million SUNY 2020 funded initiative, CGAM that supports manufacturing competitiveness. The shift to a stronger research profile will be gradual, and starts with new faculty hires, which are expected to actively pursue and secure external research funding. Connections with government and industry include student projects, faculty research, and consulting — all activities that contribute to the scope of the Applied Learning initiative. Integrating faculty research at two sites has been aided by the preparation of the Annual Research Report and a new annual “research day” in which faculty from both sites meet to brief each other on their research programs.

Goal: continue to increase extramural funding.

12. Student hands-on research and entrepreneurship
SUNY Polytechnic Institute has organized an applied learning campus team that is responsible for promoting and enhancing applied learning in all its forms. Current courses that naturally fit into the applied learning rubric include capstone sequences where students work in research teams or design teams to develop novel solutions to industry or scientific challenges. Additional experiences such as clinical practicums in Nursing and Community and Behavioral Health and service learning opportunities throughout the institution will be identified and measured.

Entrepreneurship is cultivated in both coursework (ENT 575 Innovation and Entrepreneurship, NNSE 664 Innovation and Entrepreneurship in Nanotechnology, NNSE 682 Entrepreneurship, Law and Emerging Technologies, Entrepreneurship Minor) and in practice. SUNY Polytechnic Institute, in partnership with the University at Albany and Syracuse University, has organized and hosted the New York Business Plan competition since 2010. The competition brings undergraduate and graduate student teams from all over New York to compete in regional and a state-wide competition. SUNY Polytechnic Institute now hosts and conducts the “Innovation Challenge” and collaborates with other universities to promote student innovation and entrepreneurship.

Goal: explore ways to track SUNY Polytechnic Institute student success with our Institutional Research office.

13. Scholarship, Discovery and Innovation
SUNY Polytechnic Institute utilizes citations, patents, and sponsored funding among our measures of faculty scholarship productivity during the tenure and promotion process. These data are not collected centrally at this time. SUNY Polytechnic Institute publishes a Faculty Research Report emphasizing the important current research and scholarship pursued by faculty members. We are happy to see that SUNY and RF are working to revise the SUNY Intellectual Property Policy to allow our researchers to take better advantage of patent and technology transfer process.

Goal: improve data collection on our scholarly and innovative work.
14. **START-UP New York and beyond**

SUNY Polytechnic Institute is fully engaged in START-UP NY and will continue to engage high tech companies with interests closely aligned with campus expertise. Recent partnerships include:

- Glauconix, Inc. – provides services to pharmaceutical and biotechnology companies.
- NanoDX, Inc. – develops, produces, and markets nanoscale diagnostics.
- The Film House – provides advanced visual production research and education.
- DDS Advanced Technology Group, Inc. – provides professional services support the life sciences and advanced manufacturing.

SUNY Polytechnic Institute is taking advantage of the START-UP NY Plan to spin-out technologies, create new jobs, and provide opportunities for faculty and students.

15. **Alumni / Philanthropic Support**

The SUNY Polytechnic Institute Alumni Association provides alumni programs and services, facilitates communication with graduates, and strives to strengthen alumni engagement and involvement with SUNY Polytechnic Institute. Specific programming designed to connect alumni with SUNY Polytechnic Institute include: The Alumni Association Ambassador program; Alumni Association member benefits and discounts; Wildcat Weekend; The Alumni Association Happy Hour program; The Bridge Magazine; Alumni Association social media pages; Monthly Alumni E-News; Showcase alumni events, such as the Day at the Saratoga Racetrack and Utica Comets Day; Alumni Association Endowed Scholarship awarded with preference to legacy student.

Alumni engagement is focused on building the strength and reputation of SUNY Polytechnic Institute. The outcomes of vigorous programs include identification of advisory board members, creation of strong linkages with industry, and robust philanthropy.

SUNY Polytechnic Institute has engaged a strategy of researching alumni professional pursuits, identifying philanthropic potential, and engaging individuals and groups through specific events. These initiatives have resulted in significant strengthening of alumni connection to the institution.

SUNY Polytechnic Institute has pursued an objective of building strong corporate relations to, among other benefits, develop financial support for academic and student life initiatives. Research and development support has been very strong, especially industrial support. Developing philanthropic support from those research and development supporters is a top priority.

Annual support through the Foundation has been approximately $500,000. Approximately half of that support has been restricted, and has built the SUNY Polytechnic Institute endowment to nearly $7 million. The remainder has largely been utilized for scholarship support of students which has allowed us to continue to grow enrollment and improve quality metrics of our incoming students.
Goals: meet scholarship needs; establish and launch a capital campaign; increase endowment to $15 million

16. Civic Engagement
Civic engagement is a strong suit of SUNY Polytechnic Institute. Major initiatives have included Refugees Starting Over, the NSF STEM Mentoring Project, FIRST Robotics (FLL, FTC, and FRC), GIRLS Inc., Tech Valley High Schools, BOCES, CNSE Children’s Museum of Science and Technology, and Affiliate Partner for FIRST Tech Challenge (involving 50 upstate high schools). Additionally, many courses involve community outreach projects. The campus also serves local organizations (such as MVILR), and faculty and staff are engaged in many community professional pursuits.

SUNY Polytechnic Institute regularly invites New York State students to tour the campus at both sites and has hosted community days as well as its focused activities such as Nanovember and Manufacturing Day. Each year faculty engage in determining three school district winners of the $5000 “Be the Change for Kids Innovation” contest sponsored by SUNY Polytechnic Institute and the NYS School Boards Association.

The assessment of civic engagement at SUNY has evolved over time beginning in September 2008 with a committee charged with exploring the meaning of civic engagement to present data collection. A set of 17 indicators are used in an online survey to collect and measure community engagement with a particular emphasis on service-based learning. The surveys have been conducted annually since 2011, and show an increase in faculty and student participation over time.

Goals: increase participation by faculty, staff, and students in community outreach initiatives; promote STEM education in K-12 schools in upstate NY

17. Economic Impact
SUNY Polytechnic Institute’s economic impact goes far beyond its $30 million operating budget and $413 million extramural funding budget. With even modest multipliers, the economic impact exceeds $500 million. Additionally, the jobs being created in the technology revitalization initiatives are forming the base for economic resurgence in upstate New York. With its two academic sites, Utica and Albany, and its numerous innovation centers, SUNY Polytechnic Institute is the pathway to economic prosperity.

SECTION III:
Conclusion and Expected Impact on your Campus
We recognize that the overarching goal of SUNY Excels is continuous improvement. We believe the goals that we have provided on all Excels measures are significantly aligned with SUNY Polytechnic Institute’s strategic initiatives. SUNY Polytechnic Institute is making its most aggressive goals in the following areas: achieve enrollment targets including diversity, improve student success and achieve graduation rate targets, fully implement applied learning initiatives, achieve a minimum of 20 Ph.D.’s awarded yearly, continue sponsored research growth, and develop a strong development capacity. SUNY Polytechnic Institute will contribute substantially to the applied learning initiative, the START-UP New York initiative, and the enrollment target by increasing the number of degrees awarded to 730 per year.