

FY 2019 BUDGET REQUEST



**FOR
OPERATING
AND
CAPITAL FUNDS**

**PREPARED FOR THE
BOARD OF TRUSTEES
NOVEMBER 16, 2017**



UNIVERSITY OF ILLINOIS SYSTEM

FY 2019 BUDGET REQUEST



**FOR
OPERATING
AND
CAPITAL FUNDS**



**PREPARED FOR THE
BOARD OF TRUSTEES
NOVEMBER 16, 2017**

TABLE OF CONTENTS

President’s Message

▶ Message from President Timothy L. Killeen	1
---	---

Operating Budget Request for FY 2019

▶ Operating Executive Summary	3
-------------------------------------	---

Introduction	6
University Strategic Framework	6
Background	7
Investment, Performance and Accountability Commitment (IPAC)	12
The Budget Framework	13
FY 2016, FY 2017 and FY 2018 Budget Outcomes	14
Summary of the FY 2019 Budget Request	15

Strengthen Academic Quality

Competitive Compensation	16
Faculty Salaries	17
Faculty Salaries by Discipline	20
Total Compensation	22
State Universities Retirement System	25
Resident Undergraduate Scholarship Program	25
Invest in Illinoisans – Triple I	27
Distinguished Faculty Recruitment Program	30

Address Facility Operations Needs

Operation and Maintenance New Areas	33
Urbana-Champaign Project	33
Chicago Project	34
Facility Maintenance Support	35
The Need	35
Space Realignment, Renewal and Replacement (SR ³)	36
FY 2019 Operating Budget Request for Facility Renovation	38

TABLE OF CONTENTS

Meet Inflationary and Other Cost Increases

Payroll Cost Increases 41
 Medicare and Social Security Contributions 41
Information Technology & Security Upgrades 43

Summary of the FY 2019 Operating Budget Request 45

**Capital
Budget
Request for
FY 2019**

▶ Capital Executive Summary 1

Capital Requests

Priorities 5
 Repair and Renovation 5
 Innovation and Workforce Development 5
 Library Renovation 9
 Legacy Appropriation 11

Appendices

Appendix I – Repair and Renovation

 Repair and Renovation 13

Appendix II – Innovation and Workforce Development

 Math/Statistics/Data Science Collaborative Facility
 (Altgeld/Illini Hall renovation) 14
 School of Art & Design Thinking and Learning Addition 15
 Animal Nutrition Feed Processing Research Facility 16
 Advanced Engineering Facility 17
 Advanced Pharmaceutical and Innovation Institute 18

Appendix III – Library Renovation

 Library Renovation 19

Appendix IV – Legacy Appropriation

 Legacy Appropriation 20

LIST OF FIGURES

Operating Budget Request for FY 2019



Operating Executive Summary

Figure 1:	University of Illinois System	3
Figure 2:	Illinois Public Universities Fall 2017 Total FTE Enrollments.....	3
Figure 3:	University of Illinois System Contributions to the State.....	4
Table 1:	FY 2019 Operating Budget Request	5

Introduction

Figure 4:	Strategic Framework Pillars	6
Figure 5:	University of Illinois Strengths: Urbana-Champaign.....	7
Figure 5:	University of Illinois Strengths: Chicago.....	8
Figure 5:	University of Illinois Strengths: Springfield	8
Figure 6:	Illinois Public Universities Fall 2017 Undergraduate FTE Enrollments	9
Figure 7:	Investment, Performance and Accountability Commitment	12
Figure 8:	University of Illinois System Direct State Tax Support.....	13
Figure 9:	FY 2019 Operating Budget Request	15

Strengthen Academic Quality

Competitive Compensation

Figure 10:	FY 2017 Competitive Standing among IBHE Peers UIUC, UIC and UIS	18
Figure 11:	Distance from IBHE Peer Group Median UIUC, UIC and UIS ...	19
Figure 12:	FY 2017 Faculty Average Total Compensation U of I Campuses and IBHE Peer Groups.....	22

Resident Undergraduate Scholarship Program

Figure 13:	Federal Pell Grants and Illinois MAP Maximum Award Levels vs. Entering General Undergraduate Tuition and Mandatory Fees	26
Figure 14:	Supplemental Financial Aid Expenditures FY 2009 to FY 2018	26
Figure 15:	Undergraduate PELL, MAP, SEOG, and UI Supplemental Aid...	27
Figure 16:	Undergraduate Financial Aid FY 2016.....	28

Meet Inflationary and Other Cost Increases

Payroll Cost Increases

Table 2: Appropriations and Expenditures for Medicare and Social Security Costs..... 42

Summary of the FY 2019 Operating Budget Request

Summary of the FY 2019 Operating Budget Request

Table 3: FY 2019 Operating Budget Request 46

**Capital
Budget
Request for
FY 2019**



Capital Budget Request for FY 2019

Capital Executive Summary

Figure 1: FY 2019 Capital Budget Themes..... 1
Figure 2: FY 2019 Capital Budget Request by University..... 2
Figure 3: FY 2019 Capital Budget Request by University Detail 3
Figure 4: U of I Capital Appropriations FY 2000 to FY 2018 3
Table 1: FY 2019 Capital Budget Request..... 4

UNIVERSITY OF ILLINOIS

Urbana-Champaign • Chicago • Springfield

Office of the President
364 Henry Administration Building
506 South Wright Street
Urbana, IL 61801-3689

Timothy L. Killeen
President

November 16, 2017

Dear colleagues:

The attached documents outline the fiscal year 2019 appropriations and capital requests to support the University of Illinois System, the state's largest educator with more than 83,300 students enrolled this fall across its three universities in Chicago, Springfield and Urbana-Champaign.

We are deeply grateful for the bipartisan compromise in the legislature last summer that restored full-year funding for the U of I System, averting the potentially dire consequences that loomed if the budget stalemate had extended through a third fiscal year.

Our fiscal year 2019 appropriations request seeks a modest increase in state funding to help support best-in-class universities that transform students' lives and fuel a pipeline of talent and innovation that drive economic growth for our state. If approved, funding for capital projects would be the first since fiscal year 2010.

The proposals are detailed in the pages that follow, but here is a brief overview:

- **Annual appropriation:** Our request for \$681 million represents a 5.4 percent increase over fiscal year 2018, and is critical to maintain a world-class academic, research and health-care enterprise that employs more than 29,500 FTE employees and offers programs that touch literally every corner of Illinois. State funding also would support a commitment to affordability that has frozen tuition for Illinois freshmen for three straight years, and our ongoing efforts to increase enrollment of in-state and underrepresented students.
- **Capital:** Our request for \$585.1 million seeks to address only the most urgent priorities at our three universities. The greatest need is funding for repair and renovation, which would enable us to reduce a backlog of projects that has grown in recent years with no capital funding from the state.

A long, productive partnership with the state has made the U of I System synonymous with excellence and service to students and the public good. It is an engine of progress that pumps nearly \$14 billion into the state's economy annually. It produces over 20,000 new graduates every year, adding to a global alumni base of more than 700,000 and counting. It

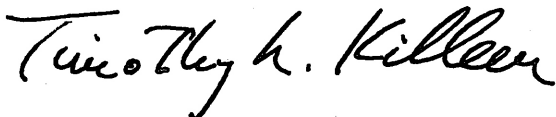
November 16, 2017

Page 2

is a go-to destination for pioneering research that will add to a legacy of discovery that has helped fuel America's rise from an agrarian nation through the industrial revolution and into the digital electronic age. And we are determined to do even more, through a new Strategic Framework that seeks to make the U of I System a model for the world.

Thank you for your consideration and for your dedicated service to the people of Illinois.

Sincerely,

A handwritten signature in black ink that reads "Timothy L. Killeen". The signature is written in a cursive style with a large, sweeping initial 'T'.

Timothy L. Killeen

**OPERATING BUDGET
REQUEST FOR FY 2019**



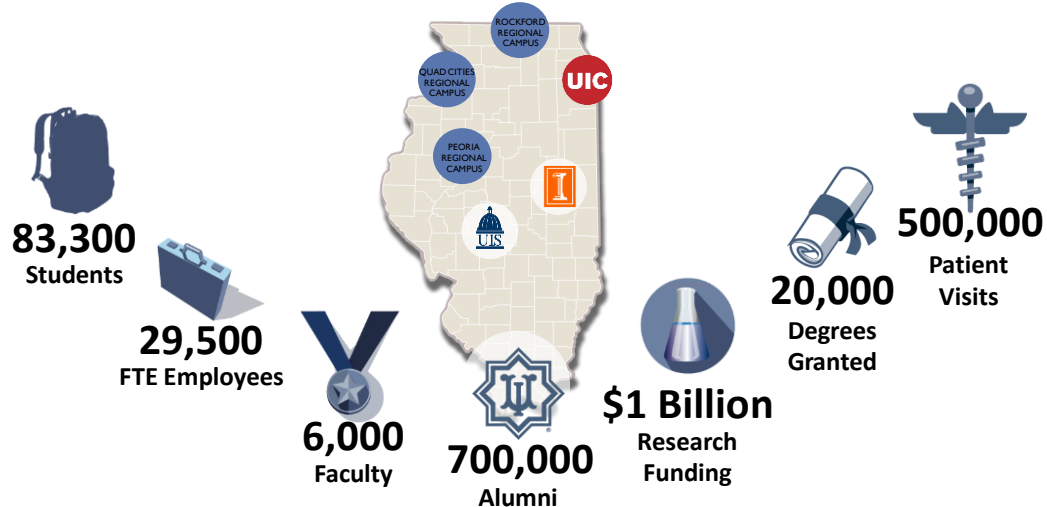
OPERATING EXECUTIVE SUMMARY



Operating Executive Summary

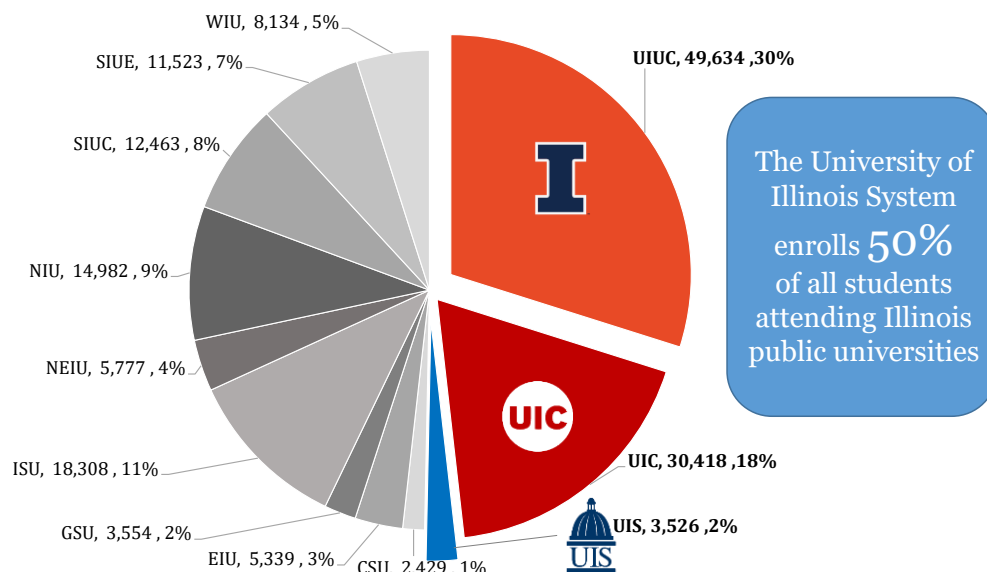
The University of Illinois System is the premier higher education system in the state. With three best-in-class universities, a robust healthcare system and a celebrated legacy, the U of I System transforms lives and enhances public good for tens of thousands of citizens in the state (see Figure 1).

Figure 1
University of Illinois System



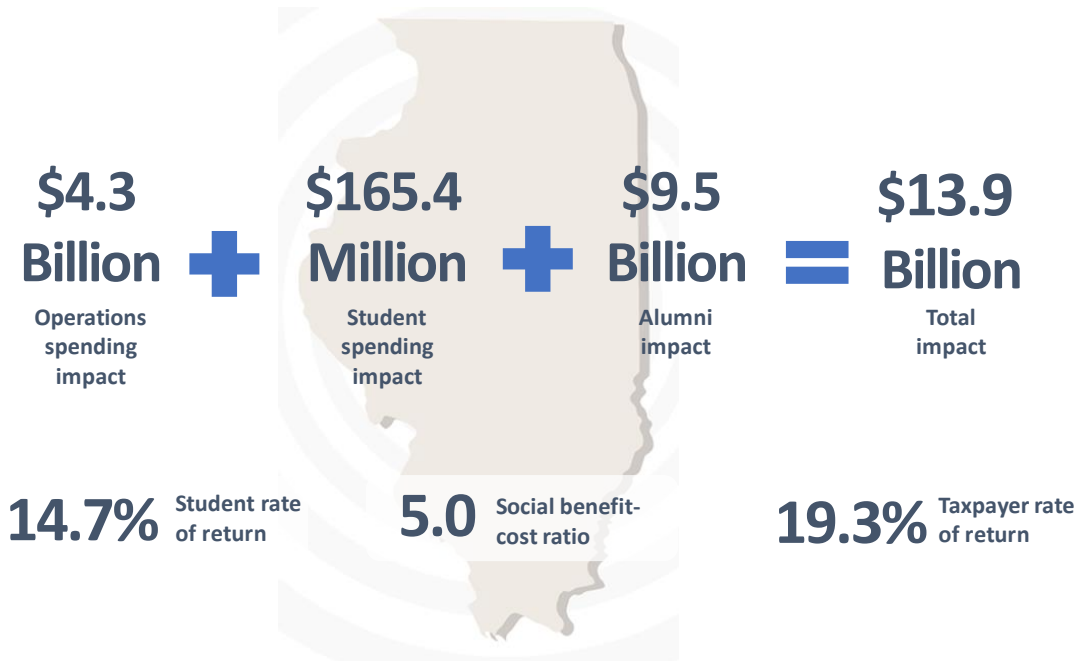
The University of Illinois System enrolls over 83,300 students and graduates more than 20,000 of them each year. In 2017, the university enrolled a full 50% of all students attending Illinois public universities, as shown in Figure 2.

Figure 2
Illinois Public Universities
Fall 2017 Total FTE Enrollments



As with other public universities, the greatest challenge we face is maintaining the excellence of our academic programs while ensuring affordability for students. A modest increase in state support will ensure that the University of Illinois System remains a national leader in preparing the next generation of entrepreneurs, innovators, civic leaders and business leaders. With adequate and steady state funding, the University of Illinois can focus on preserving the core missions of teaching, research, public service and economic development. And we are a tremendous investment! The University of Illinois System pumps almost \$14 billion into the state economy each year (see Figure 3).

**Figure 3
University of Illinois System
Contributions to the State**



To ensure our continued excellence and impact, the University of Illinois requests a \$98.0 million increase in its annual appropriation for FY 2019. This represents a 5.4% increase in our state and tuition funds budget. Of the \$98 million, \$67.1 million will restore core state support to the original FY 2017 appropriation level, with the rest providing a modest level of additional funds (\$30.9 million) that will be used to enhance our academic competitiveness, support the state’s economic development, continue to provide world-class education to Illinois students, and prepare the next generation of leaders.

As shown in Table 1, the requested increase in funds will be used to support three broad areas. First, and most importantly, we will strengthen academic quality by recruiting a greater number of high-achieving students and faculty.

Table 1
University of Illinois System
FY 2019 Operating Budget Request
(Dollars in Thousands)

I. Strengthen Academic Quality		\$ 77,335.5
	<i>% of FY 2018 Base</i>	<i>4.2%</i>
A. Competitive Compensation	\$ 57,335.5	
1. Salary Improvements - 2.0%	\$22,934.2	
2. Compression, Market, Equity and Retention (CMER) - 3.0%	34,401.3	
B. Resident Undergraduate Scholarship Program	10,000.0	
C. Distinguished Faculty Recruitment Program	10,000.0	
 II. Address Facility Operations Needs		 \$ 16,129.7
A. O & M New Areas	\$ 1,129.7	
B. Facility Maintenance Support	15,000.0	
 III. Meet Inflationary and Other Cost Increases		 \$ 4,500.0
A. Payroll Cost Increases	\$ 200.0	
1. Medicare	\$ 200.0	
B. Information Technology & Security Upgrades	4,300.0	
 Total Request		 \$ 97,965.2
	<i>% of FY 2018 Base</i>	<i>5.4%</i>

FY 2018 Base: \$1,825,390.4
Base = EAF/GRF + Tuition

Specifically, we propose to devote \$10 million for additional scholarships for Illinois students in order to stem the flow of high school graduates to out-of-state universities. Special emphasis will be given to attracting underrepresented students, including those from low-sending counties in Illinois. Funds also will be devoted to a program to recruit distinguished, world-class faculty as well as to provide competitive salary compensation to retain current faculty.

Second, we will use the requested funding to address our facility maintenance needs. The University of Illinois System has over \$2 billion in deferred maintenance projects, many of which require urgent attention. Classrooms, labs, studios and faculty offices suffer from leaks, structural damage, poor heating and air flow, and disability access challenges. Over the years, the three universities have been investing a portion of their operating fund as well as philanthropic gifts to address such needs as best as possible but it is not enough. The proposed request will provide crucial resources to bolster and enhance academic spaces. The final category requested is to address unavoidable inflationary cost increases.

INTRODUCTION



INTRODUCTION

Overview



The University of Illinois System's FY 2019 operating budget request will help us to accomplish two important goals. The first is to restore core state support to original FY 2017 appropriation levels (\$67.1 million) in order to protect our in-state students, guarantee our overall academic competitiveness, and contribute to the State's economic development. The second is to provide the University of Illinois System with additional capacity (\$30.9 million) to implement our Strategic Framework.



The University of Illinois: World-class University, statewide impact.

This document presents an overall budget plan for FY 2019 that will ensure the continued preeminence of the University of Illinois System. Now more than ever, the State of Illinois needs public higher education to flourish. Investing in the University of Illinois System is an investment in the families of Illinois, the economic future of our state, and the innovation required to tackle society's most pressing social issues.

UNIVERSITY STRATEGIC FRAMEWORK

In May 2016, the University Of Illinois Board Of Trustees approved a Strategic Framework that serves as a roadmap for the University's future (see Figure 4).



The University of Illinois System must safeguard its longstanding excellence in teaching, research, public service and economic development for future generations.

**Figure 4
Strategic Framework Pillars**



The framework, titled “The public’s university: Optimizing impact for the public good,” sets collective priorities for the University of Illinois System and each of its three universities. The Framework pledges to organize University resources around four strategic pillars. For more information on each of these pillars and the overall strategic planning process at the University, visit the Strategic Framework website here: https://www.uillinois.edu/strategic_framework.

BACKGROUND

The University of Illinois System has tremendous and broad-based impact, serving a multitude of people throughout the State. The System includes a Big Ten flagship university at Urbana-Champaign; a public urban research university as well as hospital and health sciences system in Chicago; and a liberal arts university located in the State’s capital. The System’s three universities each provide academic programs that attract students from every county in the State. Each university also has distinct academic and research strengths: Urbana boasts world-class engineering, science, agriculture, data science and technology, and interdisciplinary programs in the arts and humanities; Chicago hosts one of the nation’s largest medical schools as well as cutting-edge programs in nursing, pharmacy, dentistry, and social work; and Springfield is home to strong programs in public policy, political science, and online education (see Figure 5).




The University of Illinois System: three distinct universities with different missions that all have statewide impact.

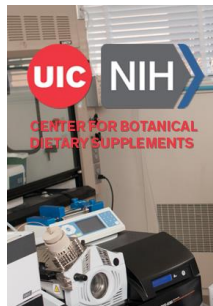
Figure 5
University of Illinois Strengths: Urbana-Champaign




**Figure 5 (continued)
University of Illinois Strengths: Chicago**

▼
The University of Illinois System is making a difference every day in every one of Illinois' counties.







Leader in NIH funding



Practical research



Highly diverse student body



Top rankings for Nursing Programs

University of Illinois Strengths: Springfield





Strong liberal arts core



Leader in online education



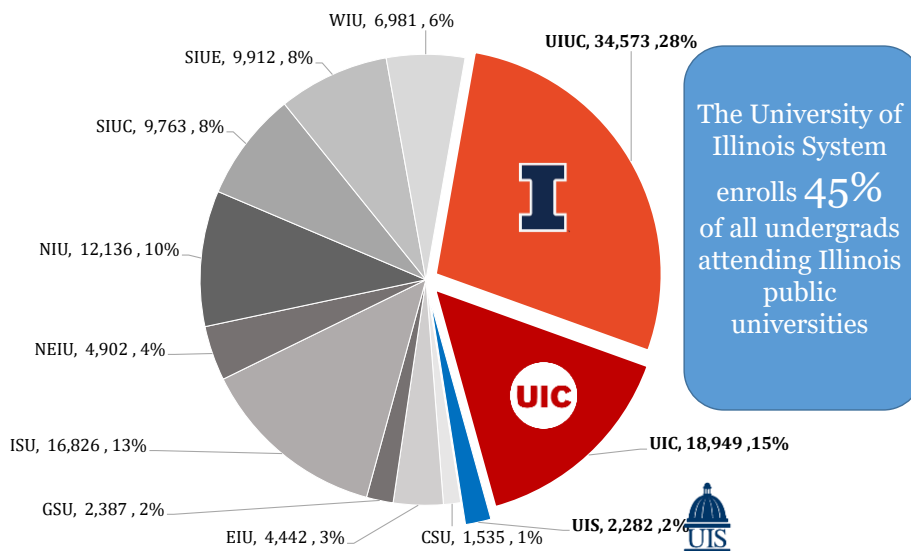
Engagement emphasis on community and public affairs



Active public policy programs

The University of Illinois System has a long legacy of commitment to Illinois families. Currently, we admit more than 70% of Illinois students who apply to our universities. Moreover, across our three universities, 80% of our undergraduates are Illinois residents. Collectively, the University of Illinois System enrolls half of all students (undergraduate and graduate) and, 45% of all undergraduate students that attend a public university in the State, as shown in Figure 6.

Figure 6
Illinois Public Universities
Fall 2017 Undergraduate FTE Enrollments



▼

The University of Illinois System enrolls half of all students that attend an Illinois public university and 45% of undergraduates.

As one part of our commitment to affordability, **the University has frozen tuition for resident undergraduate students for three consecutive years** and we have held the line on mandatory fee increases as well. Furthermore, we are committed to continuing our efforts to provide robust scholarships and financial aid to Illinois students. Last year, we proposed an amendment to the Investment, Performance and Affordability Commitment (IPAC) that would devote at least \$170 million a year to scholarships and financial aid for Illinois undergraduates, which represents roughly 85% of all the aid we offer to students.

▼

The University of Illinois System is a dynamic treasure for our State because of the transforming power of education in people's lives.

In addition to educating students from across the State, the University of Illinois System has a broad impact on families statewide through our Cooperative Extension as well as our robust health care services in Chicago, Peoria and Rockford. Cooperative Extension, housed in the College of Agriculture, Consumer and Environmental Sciences (ACES) at UIUC, offers educational programs in every county in the State. Programs fall into five broad categories: healthy society; food security and safety; environmental stewardship; sustainable and profitable food production and marketing systems; and enhancing youth, family and community well-being.

As another measure of our impact, the University of Illinois System's research is creative and cutting edge, solving societal problems at the state and national level. In FY 2017 alone, our faculty produced 390 technology disclosures, 108 patents, and 103 licenses and options to commercialize new technologies. Some of these innovations will become the products, industries and job-creating companies of the future. In addition, the University of Illinois licensed 8 new start-up companies in FY 2017. Currently, business incubation facilities at UIUC and at UIC house dozens of companies that involve faculty and students in innovative research, internships, and discovery.


The University of Illinois System also sponsors several outreach and training programs that ensure the safety of Illinois citizens. For example, the Illinois Fire Service Institute at UIUC offers on-campus and online instruction and certifications for the State's firefighters. Courses offering college credit range from firefighting basics to rescue techniques to disaster response preparation. In 2016, the Illinois Fire Service Institute provided training to more than 53,850 firefighter students from all 102 counties—training that translates into lives saved and property damage minimized throughout the State.

Last but not least, the University of Illinois is one of the largest employers in the State. Across our three universities as well as in the System offices, we employ over 29,500 FTE. In terms of economic impact, the added income created by the University of Illinois System and its robust student populations support over 176,800 jobs. Altogether, the System spends over \$5.4 billion on payroll, supplies and services. The Return-on-Investment for every dollar spent shows the following results:

- Taxpayer level: for every dollar spent at U of I, \$4.60 is added to state taxes and public-sector savings
- Societal level: for every dollar spent in the U of I System, \$5.00 is added to state income and social savings

In total, the University of Illinois System pumps an estimated \$13.9 billion into the State's economy each year.

Clearly, the University of Illinois System is a treasure for our State and its people. And it is a dynamic treasure, transforming lives through the power of education in



*Ultimately, the
greatest impact of the
University of Illinois
System is on the lives
of students*

an ever-changing environment and for an increasingly diverse population.

Ultimately, the greatest impact of the University of Illinois is on the lives of students. They learn in our classrooms, interact with our faculty, study in our libraries and laboratories, and graduate to make their own contributions to society.

In fact, compared to those with a high school education, college graduates:

- Earn nearly \$1 million more in life-time salaries
- Volunteer more in their communities
- Are healthier and live longer
- Are more likely to vote and participate in civic activities

In the midst of an explosion of new technologies and rapid globalization, a high-quality education is more important today than ever before, enabling people to achieve their dreams and change their economic conditions. University of Illinois students help build our society, shape our culture, and fuel our economy. They are the engaged and informed citizens on whom our democracy depends. The University of Illinois System is also a dynamic treasure because of the cutting-edge research being conducted in our labs, studios and libraries, much of which is aimed at solving problems such as illness, healthcare disparities, poverty, food shortage, global warming, social inequities, and pollution. These discoveries also translate into the foundation of the new economy. In short, our award-winning scholarship creates new jobs and industries for the 21st century economy.

As evidenced by our broad and deep impact, the University of Illinois System makes a difference in the prosperity and quality of life of tens of thousands of Illinoisans every day. Many of these citizens depend upon and care deeply about the quality of the University and its future. Stewardship requires that all of our stakeholders—from trustees, administrators and faculty to students, alumni, legislators and citizens—share a deep commitment to the values of public higher education and particularly to the University of Illinois System.

INVESTMENT, PERFORMANCE AND ACCOUNTABILITY COMMITMENT (IPAC)



IPAC will stabilize in-state undergraduate tuition and mandatory fees, limiting increases to no more than the rate of inflation over the 5 years.

IPAC is a five-year compact we have proposed between the State and the University of Illinois System. IPAC puts state funding as well as university performance metrics into a formal agreement that each partner would endorse (see Figure 7), establishing a binding statutory partnership based on mutual trust and state law. IPAC would provide the university with a stable level of state financial support and in turn would ensure the state that the flagship system is affordable, accessible and successful for Illinois students.

Figure 7
Investment, Performance and Accountability Commitment



A five-year partnership between the University of Illinois and the State of Illinois

UNIVERSITY OF ILLINOIS COMMITMENT

- Stabilize in-state undergraduate tuition and fees
- Guarantee to admit a growing number of Illinois residents (27,000 + students across the system)
- Maintain high graduation and retention rates
- INVEST IN ILLINOISIANS: \$170 million in financial aid
- Impart accountability through annual reporting

STATE GOVERNMENT COMMITMENT

- Provide foundational level of state funding over 5 years
- Implement reforms to improve efficiencies, including Property Control Act and Certificate of Participation program
- Create Illinois Excellence Program to recruit and retain promising faculty
- Reform procurement code

BENEFITS TO THE PEOPLE OF ILLINOIS

- Keep talented college students in the State of Illinois
- Attract world-class faculty to stably-funded universities
- Protect \$14 billion annual contribution to Illinois economy



With the State's help, IPAC can be the most comprehensive agreement of its kind, to ensure that Illinois public higher education is both affordable and accessible.

IPAC serves the needs of Illinois families by promising robust in-state admissions as well as high graduation and retention rates for enrolled students. The compact allows for a more transparent appropriations process that directly ties state funding to University metrics and goals related to student affordability and enrollment. In essence, it holds the flagship system accountable to the people of Illinois. In turn, predictable state funding would allow the U of I System to operate more efficiently and effectively in the very competitive higher education arena. It would also help us

to compete for talented Illinois students and world-class faculty. Finally, IPAC supports and protects the \$14 billion pouring into the state’s economy each year from the University System.

This innovative and transformational partnership would immediately position the State of Illinois to be a national leader in supporting higher education. And it would ensure that the U of I System continues to be among the best in the world in educating students and in conducting innovative research that solves society’s most pressing problems.

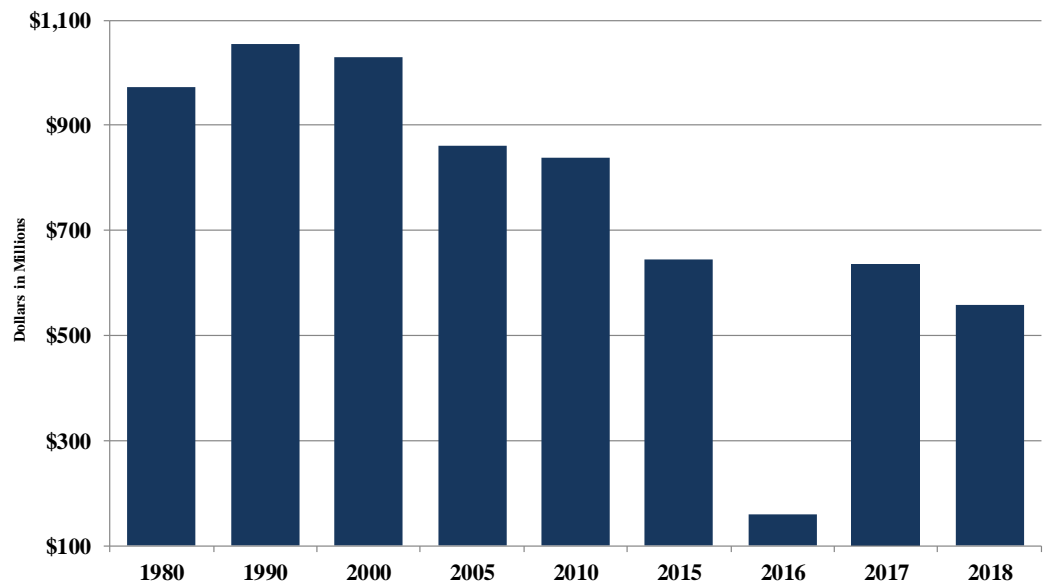
THE BUDGET FRAMEWORK

During the fiscal challenges in recent years, University of Illinois leaders and faculty have worked closely with the Board of Trustees to address key issues of resource management, administrative reorganization, and tuition and financial aid policies. Although education is often cited among the State’s highest budget priorities, an examination of direct state tax appropriations (shown in Figure 8) reveals the declining investment in University of Illinois students.



Redirection of existing resources to meet high priority funding needs is an integral and ongoing part of the University’s annual budget process.

Figure 8
University of Illinois System
Direct State Tax Support
(In FY 2018 Estimated CPI Dollars)



Footnote: F Y1980 & FY 1990 adjusted to include UIS. FY 2010 – FY 2018 include transfer of State Surveys; FY 2010 - FY 2018 exclude health insurance redirection.

Direct state support now represents less than one-fourth of the University's total operating budget. However, in combination with tuition revenue, state support represents virtually the entire funding for instructional programs. The University of Illinois System cannot sustain, let alone enhance, quality without a foundation of strong and reliable state support.

FY 2016, FY 2017 AND FY 2018 BUDGET OUTCOMES

The budget impasse in FY 2016 presented a distinct set of challenges. A "stopgap" appropriation was finally passed in May 2016, and the University of Illinois System received \$180 million, leaving a shortfall of \$467 million from FY 2015. The \$467 million has never been received. On July 6, 2017, the legislature passed a budget for FY 2017 and FY 2018. The University of Illinois received \$650.1 million in the FY 2017 budget and \$583.0 million in the FY 2018 budget (representing a 10% cut from the final FY 2017 appropriation).

To help offset the 10% cut, we will use tuition income and internal reallocations. Our tuition revenues will grow modestly in FY 2018, primarily due to small tuition increases for nonresidents over the past few years. In contrast, we have frozen in-state tuition over the last three years. Nevertheless, even among residents, the incoming cohort of students will pay a higher rate than the graduating cohort because of Illinois' guaranteed tuition law. All in all, we will need to prioritize carefully on expenditures, allowing us to address only our most urgent needs.

We have not had a capital budget in eight years. Back in FY 2010, a \$31 billion state capital budget was passed and it funded the first new capital projects since FY 2003. The 2010 capital bill included projects at all three universities as well as repair and renovation funding for existing facilities. Since 2010, we have been cumulating a growing list of urgent capital needs. The aforementioned "bridge" budget passed on June 30, 2016 did include reappropriations for the Integrated Bioprocessing Lab at Urbana, the Dentistry Modernization at Chicago, and various smaller repair and renovation projects. However, not included in the bill were reappropriations for the Public Safety Building at Springfield, the Advanced Chemical Technologies Building at Chicago and the remaining repair and renovation projects.

SUMMARY OF THE FY 2019 BUDGET REQUEST

The University of Illinois System’s FY 2019 operating budget request is modest but essential for us. It will help us restore core state support to original FY 2017 appropriation levels (\$67.1 million) in order to protect our in-state students, guarantee our overall academic competitiveness, and contribute to the State’s economic development. It will also provide the University of Illinois System with additional capacity (\$30.9 million) to implement our Strategic Framework.

Our 2016 Strategic Framework calls on us to serve more students, conduct research that addresses state and national challenges, and ensure that the Midwest is a vibrant and healthy region of the country. The State of Illinois needs its flagship system now, more than ever. We can help to attract and retain talent to Illinois and to grow the State’s infrastructure and economy. To do all this, we urgently need a modest and healthy FY 2019 budget (see Figure 9).

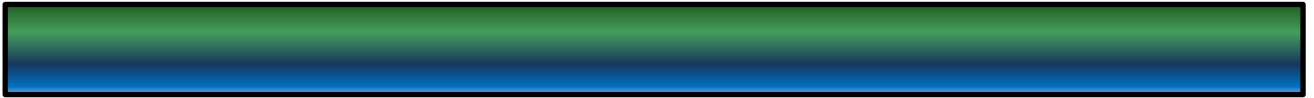
Figure 9
University of Illinois System
FY 2019 Operating Budget Request

FY 2018 state appropriation: \$583.0M
FY 2019 incremental request: \$98.0M



FY 2019 state appropriation request: \$681.0M

STRENGTHEN ACADEMIC QUALITY



COMPETITIVE COMPENSATION

(\$57,335,500)

Overview



The University of Illinois System is consistently among the nation's top public institutions of higher education. Our three best-in-class universities provide transformational education for students as well as intellectually vibrant environments for faculty who are experts in their respective fields. As national leaders, our three campuses face a continuous dilemma: to sustain national standing we must attract and retain top-quality faculty, staff and students; yet that same national prominence marks our universities as prime targets for other institutions seeking to enhance their own quality through recruitment of top faculty. Since 2005, the Urbana and Chicago campuses in particular have lost numerous faculty to competitors. The University of Illinois System must remain aggressive in the highly competitive market for top-quality faculty or risk falling behind. The University's compensation levels are among the crucial factors that affect our ability to attract and retain personnel at all levels.



Salary Improvements

\$22,934,200

Compression, Market, Equity and Retention

\$34,401,300



Loss of state support for salary increases poses perhaps the greatest challenge to the University's overall quality since the late 1980s.

In the last few years, many states across the nation have experienced budget pressures brought on by slow revenue growth and rising costs, presenting policymakers with difficult decisions. Despite this constrained budgetary environment, most states have approved modest salary increases for faculty and staff each year since FY 2008. In contrast, the State of Illinois has provided little or no support for salary increases between FY 2008 and FY 2017, forcing the University of Illinois System to fund or supplement modest salary programs internally through tuition revenues and reallocation of other funds. During this 10-year period, state funding cuts have damaged the University's ability to compete for and retain talent. To provide context for this damage, losing one top faculty member to a peer institution translates to a) the loss of thousands and sometimes millions of external research dollars, b) an exodus of talented graduate students and post-doctoral researchers who work in the professor's lab, c) reduced morale among faculty who collaborate with the exiting professor, and d) reputational damage to the department and college. It is difficult to overestimate the detrimental results of such faculty loss.

In such an environment, the need to monitor the University's competitive standing is more crucial than ever. Numerous salary analyses are performed annually for that purpose. Due to the varied nature of the University workforce, separate analyses are performed for academic employees and staff. Salaries for academic employees, including faculty, are compared to those at peer institutions, whereas staff salary comparisons are made with appropriate employee groups in the state and regional markets. The discussion that follows provides background information concerning the University of Illinois System's standing relative to salaries.

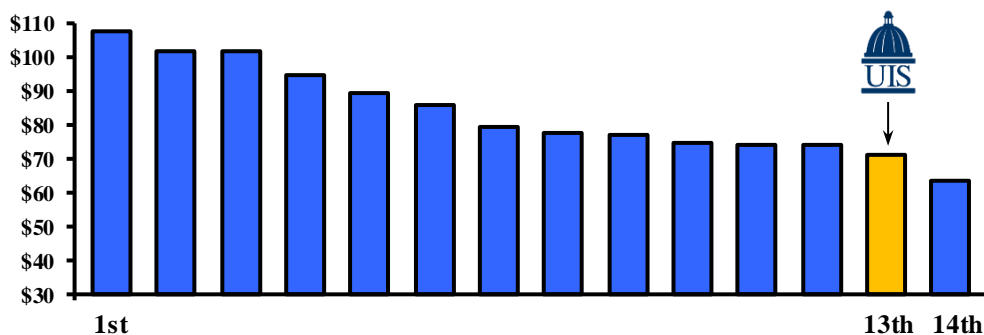
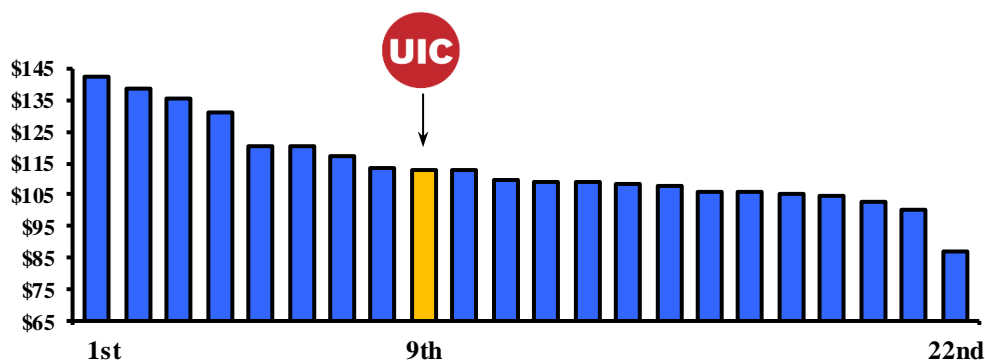
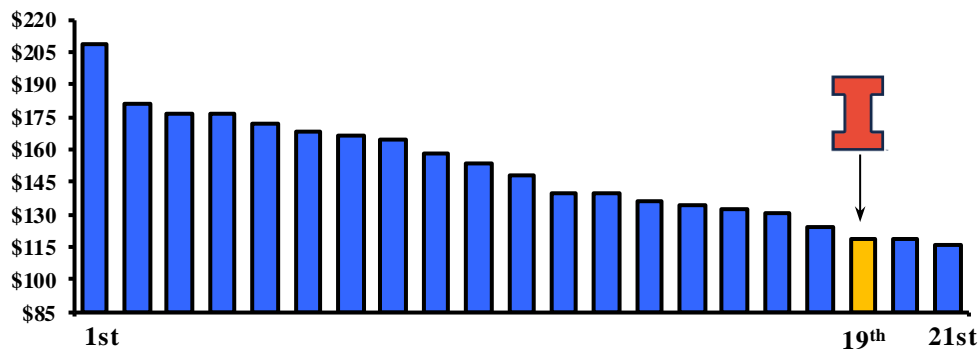
FACULTY SALARIES

In 1985, the Illinois Board of Higher Education (IBHE) established groups of peer institutions for public universities in Illinois to help benchmark competition in a variety of arenas, including faculty salaries. Through a complex statistical process, 1,534 institutions around the country were divided into 41 peer groups based on similarity of characteristics, including enrollment levels, type and numbers of degrees conferred, funding levels and detailed faculty characteristics. Based on this analysis, 21 peers were identified for UIUC and 22 peers identified for UIC. An updated peer group was developed in FY 2002 for the University of Illinois at Springfield to better reflect the campus' evolving academic mission, as well as its quality and standing within the University of Illinois System. The updated peer group consisting of 14 institutions for UIS was approved by the IBHE in 2004.

The competitive standing of each university indicates how well its faculty salaries have fared relative to its peers. Figure 10 shows that UIUC ranked 19th in its group of 21 peers in FY 2017, down from 18th in FY 2016 and now third from last place among its comparison group. Although the UIUC campus is among the nation's most academically competitive institutions (routinely ranked among the top 10 public institutions in the U.S.), salaries for faculty at UIUC have long ranked near the bottom of its comparison group. UIC ranked 9th in its group of 22 peers in FY 2017, up one spot from its place in FY 2016. UIS ranked 13th, down one spot from FY 2016 and in second to last place among its comparison group.

Figure 10
FY 2017 Competitive Standing among IBHE Peers
UIUC, UIC and UIS
(Dollars in Thousands)

▼
 FY 2017 found faculty salaries at UIUC and UIS near the bottom and UIC at the middle of their respective peer groups.

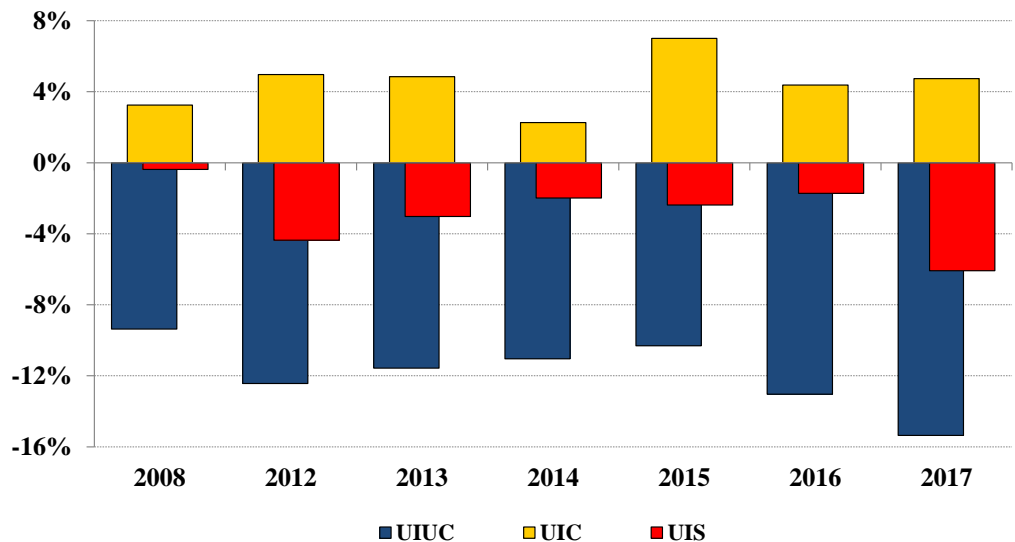


No progress for the three campuses is likely in FY 2018 because we were able to offer only a 1% salary increase program for UIUC and UIS; collective bargaining determined the salary program for UIC. Meanwhile, many of our public peer institutions continue to provide moderate and regular faculty pay increases.

Looking over time, we can observe the gaps as peer institutions have outpaced us. Figure 11 shows the average salary of full-time tenure system faculty (ranks of assistant professor and above) at each University of Illinois campus, as a percent of its peer group median since 2008.

Figure 11
Distance from IBHE Peer Group Median
UIUC, UIC and UIS

- 2008–2009: No salary appropriation. 2% – 4% program funded from GRF, tuition and internal reallocation of funds.
- 2010–2011: No salary program.
- 2012–2013: No salary appropriation. 2.5% program funded internally.
- 2014: No salary appropriation. 2.75% program funded internally.
- 2015: No salary appropriation. 2.5% program funded internally.
- 2016: No salary program.
- 2017: No salary appropriation. Mid-year 2% program funded internally.



In the last 10 years, faculty salary increases at the University of Illinois have ranged from 0% to 4%, with most years between 2% and 3%. Since FY 2010, there have been three years with no salary program and five years where salary programs were funded internally. The salary gap between UIUC and UIS and their respective peer group medians has grown over the last decade. UIUC is now well below its peer group median in 2017, and UIS also has fallen below its peer group median.

Clearly, the University of Illinois System has experienced a loss of competitiveness in recent years because of the budget challenges. Another important point to underscore is that lack of funding also causes internal salary discrepancies among faculty ranks. Beginning salaries for newly hired assistant professors typically

increase over time in accord with inflation and the marketplace. Without competitive salary programs, our long-standing senior faculty, especially at the mid-level associate professor rank, are experiencing salary compression compared to their junior counterparts. In other words, their salaries are falling further and further behind those of their newly hired younger colleagues. Without adequate state appropriations, such difficulties could reach critical levels, weakening the overall quality of the University of Illinois System.

To re-cap, the University of Illinois System cannot sustain excellence unless it remains a go-to destination place for top faculty. A multi-year strategic, statewide commitment to fund salary increases is required to restore competitiveness that has diminished over the last decade.

FACULTY SALARIES BY DISCIPLINE



If Illinois’ constrained budget climate persists, the University will experience increased difficulty attracting and retaining faculty in high demand disciplines.

Another way to gauge competitiveness is to examine salaries by discipline.

Attracting top quality faculty is particularly challenging in high-demand disciplines, where private enterprises often can offer lucrative alternatives to academic service.

The Association of American Universities Data Exchange (AAUDE) serves as a useful reference for detailed salary data by discipline for many of the UIUC and UIC peer institutions. Institutions included in the AAUDE Salary Study that are appropriate for University of Illinois System comparisons are:

- | | |
|----------------------------------|---------------------------------------|
| Univ. of Arizona | Univ. of Minnesota |
| Univ. of Colorado – Boulder | Univ. of Missouri |
| Univ. of Florida | Univ. of North Carolina – Chapel Hill |
| Indiana University | Ohio State University |
| Univ. of Iowa | Univ. of Oregon |
| Iowa State University | Penn State University |
| Univ. of Kansas | Purdue University |
| Univ. of Maryland – College Park | Univ. of Texas – Austin |
| Univ. of Michigan | Univ. of Virginia |
| Michigan State University | Univ. of Wisconsin – Madison |

The study allows us to look at the years between 2008 and 2017 when economic conditions and funding levels fluctuated significantly and, in turn, affected salary



*The University of
Illinois System
comparisons looked
at 18 disciplines at
UIUC and 13
disciplines at UIC.*

levels. The data indicate that by FY 2015, both UIUC and UIC had recovered a good portion of ground lost from the 2008 economic recession. By FY 2015, UIUC had regained or improved from its FY 2008 rank in 15 of the 18 examined disciplines. These include: Architecture, Business, Communications, Computer & Information Sciences, Education, Engineering, Family and Consumer Sciences, Foreign Languages, Law, Mathematics, Philosophy, Physical Sciences, Psychology, Social Sciences, and Visual/Performing Arts. During these same years (between FY 2008 and FY 2015), UIUC lost ground in only three disciplines: Agriculture, English Language and Literature/Letters, and Social Work.

In comparison, UIC too had regained or improved its rank in 11 of the 13 examined disciplines by FY 2015. These include: Architecture, Business, Education, Engineering, Foreign Languages, English Language and Literature/Letters, Mathematics, Philosophy, Psychology, Social Sciences and Social Work. During these same years (between FY 2008 and FY 2015), UIC lost ground in only two disciplines: Physical Sciences and Visual/Performing Arts.

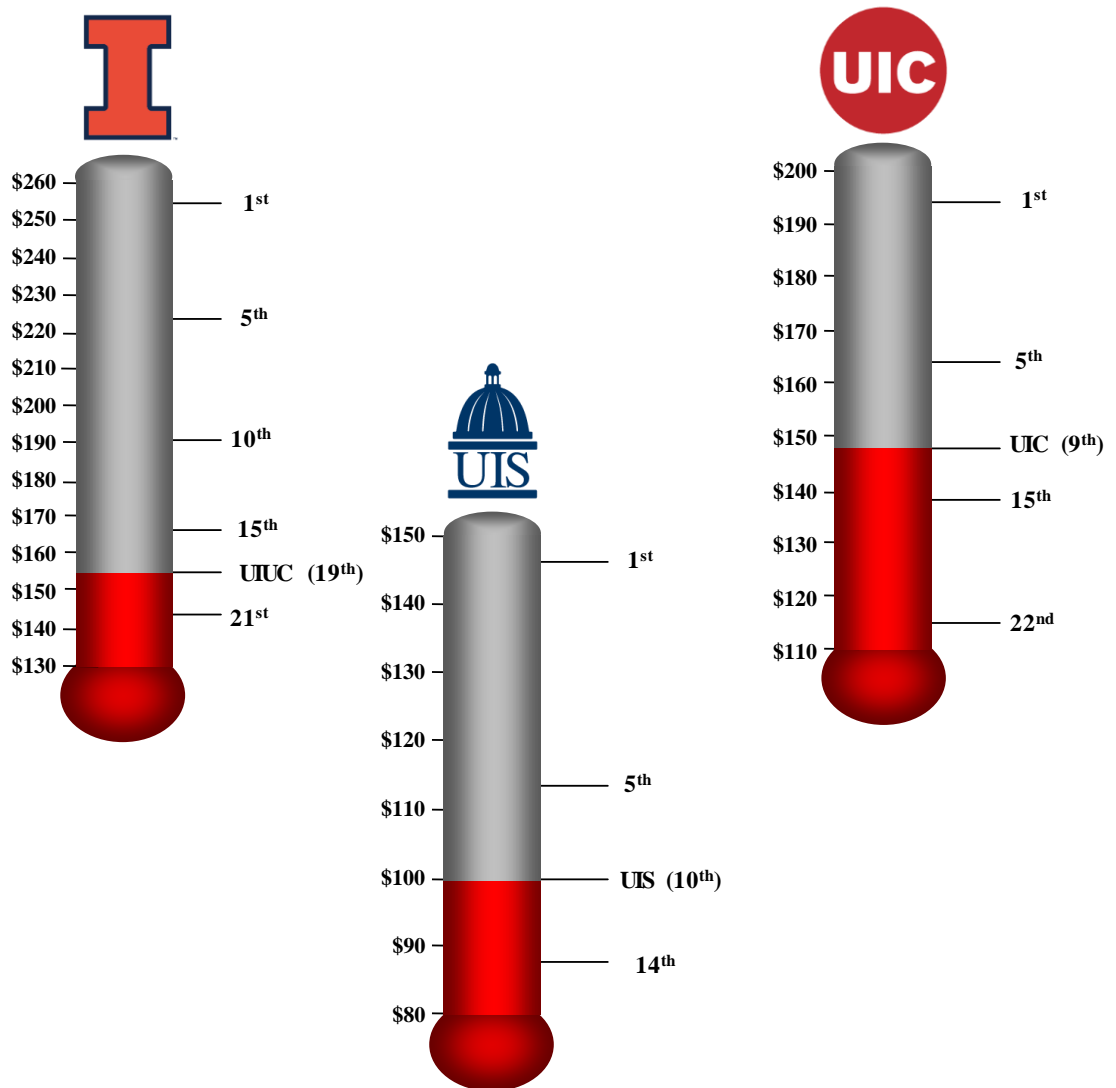
After FY 2015, the State of Illinois experienced a two and a half year budget impasse. Without a budget, the State legislature was unable to appropriate funding for higher education. Public universities were especially hard hit, with many struggling to make payroll, much less provide salary increases for faculty. Between FY 2015 and FY 2017, UIUC faculty salary rankings lost ground in all 18 disciplines, including high-demand disciplines such as Business, Computer & Information Science, and Engineering. Faculty salary rankings at UIC fared only slightly better, with Engineering managing to maintain its rank from FY 2015 to FY 2017, whereas faculty salary rankings fell in the other 12 disciplines.

It is clear that declines in state funding have hurt the University of Illinois System's ability to remain competitive for high quality faculty and staff, although the impact has been greater in some disciplines than in others. The magnitude of loss between FY 2015 and FY 2017 is unprecedented and will take years to overcome. It is critically important that we resume the road to recovery in FY 2018 and beyond.

TOTAL COMPENSATION

Total compensation represents the combination of average cash salary plus employer contributions to fringe benefits. Figure 12 shows FY 2017 average total compensation for faculty in the ranks of professor, associate professor and assistant professor at the three University of Illinois campuses relative to their peers.

Figure 12
FY 2017 Faculty Average Total Compensation
U of I Campuses and IBHE Peer Groups
(Dollars in Thousands)



Here too, the University of Illinois System is losing ground. UIUC ranks third lowest at 19th out of 21, UIS ranks fifth lowest at 10th out of 14, and UIC ranks 9th out of 22. Clearly the University of Illinois employer contributions for fringe benefits are not competitive enough to compensate for the drag on total compensation caused by salary deficits. Consequently, the total compensation package must be considered a vital part of an overall strategy to strengthen our competitive position.

In sum, budgetary constraints prior to FY 2008 hurt the University of Illinois System in the faculty salary market. Between 2008 and 2015, modest State funding as well as internal reallocation produced salary programs that kept pace with inflation, but were below the University's top competitors in many cases. In the last several years, though, the lack of funding for a salary program has left the University extremely vulnerable in terms of competitiveness. Furthermore, because we have had to do a good amount of juggling of funds to cope with the substantial decrement in our FY 2016 state allocation, we have very little financial flexibility to continue to reallocate internal funds into the future.

Given this situation, **we are requesting incremental funds totaling \$22.9 million for FY 2019, to be used for a robust faculty and staff salary program** that will halt the downslide compared to our peers. Moreover, **we are requesting \$34.4 million in additional funding help to recover slippage** in particular disciplines and ranks of faculty. This "compression, market, equity and retention" (CMER) allocation will allow us to retain world-class faculty who are being poached by other universities and to ensure our salaries are competitive up, down and across the ranks as well as by particular demographics such as gender and race/ethnicity.

STATE UNIVERSITIES RETIREMENT SYSTEM

The health of the State Universities Retirement System (SURS) has been a matter of prime concern for many years. The University of Illinois System's competitiveness among peer institutions with respect to retirement benefits is essential for the recruitment and retention of talented faculty and staff. Any discussion of compensation policy for higher education in Illinois should include a strong call for

continued adequate funding of the SURS program to ensure that existing benefits will remain secure.

It should be understood, however, that while achieving and maintaining adequate SURS funding remains a key concern for FY 2019 and beyond, funding improvements will not, in and of themselves, improve either the benefits available to University employees or the University's competitive position among peer institutions in total compensation. The adequacy of SURS' fiscal support must be assured, and improvements in the University's competitive position in total compensation must be achieved.

RESIDENT UNDERGRADUATE SCHOLARSHIP PROGRAM (\$10,000,000)

Overview

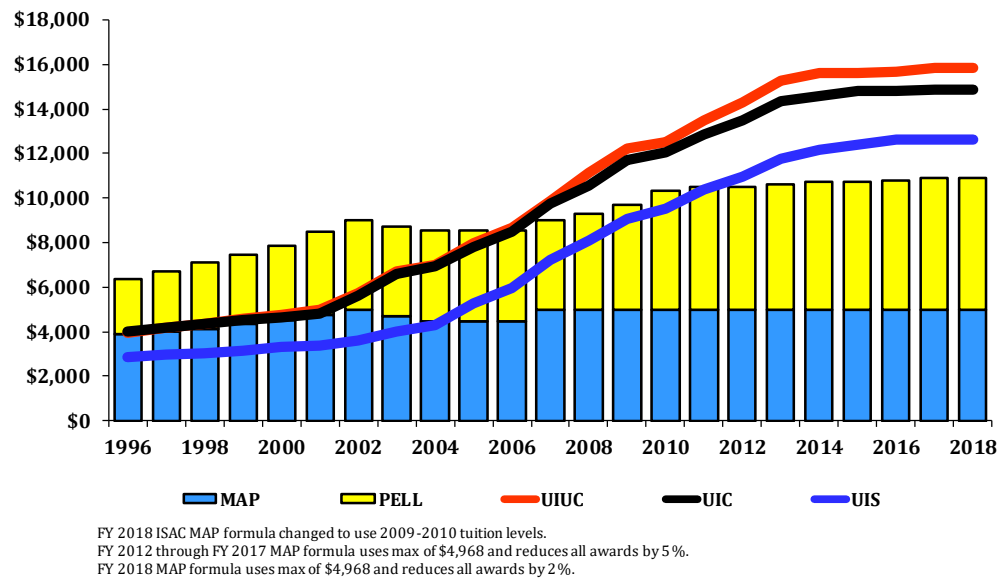
▶ The University of Illinois System has a strong commitment to the citizens of Illinois whose taxes contribute to the support of this flagship public institution. Our goal is to ensure full access for all qualified Illinois students, regardless of their income level. Toward that end, the U of I System assists students with a wide range of financial aid programs including grants and loans from federal, State and private sources; federal work study funds; and grants and loans from institutional resources. Over 31,800 undergraduates across our three universities (55.5%) received some form of gift aid, the largest portion being need-based financial aid.

All three of our universities annually survey admitted students who choose to go elsewhere for college and the evidence is clear—financial support is at the heart of how students make choices about which college to attend. In fact, 8 of the top 10 reasons our admitted students give for choosing other schools are related to financial barriers.

A crucial component of financial aid packages for Illinois residents is the Monetary Award Program (MAP) grants from the Illinois Student Assistance Commission (ISAC). For many years the maximum MAP grant awarded to those students with greatest financial need was sufficient to cover the full tuition and mandatory fees at Illinois public universities. By FY 1996, however, tuition and mandatory fees at UIUC and UIC exceeded the maximum MAP award, and the University of Illinois began supplementing MAP grants for these students to cover the difference. The uncertainty of MAP funding during the last two years has had substantial negative effects—Illinois students are rightfully anxious about whether they will have enough financial support to stay in school and despite our efforts to reassure them, the prolonged budget crisis has resulted in student retention challenges. **We urge the State to consistently fund MAP awards in a timely fashion and to consider augmenting this support.**

For several years the Pell and MAP program maximum awards have not kept pace with the increases in tuition and fees as shown in Figure 13.

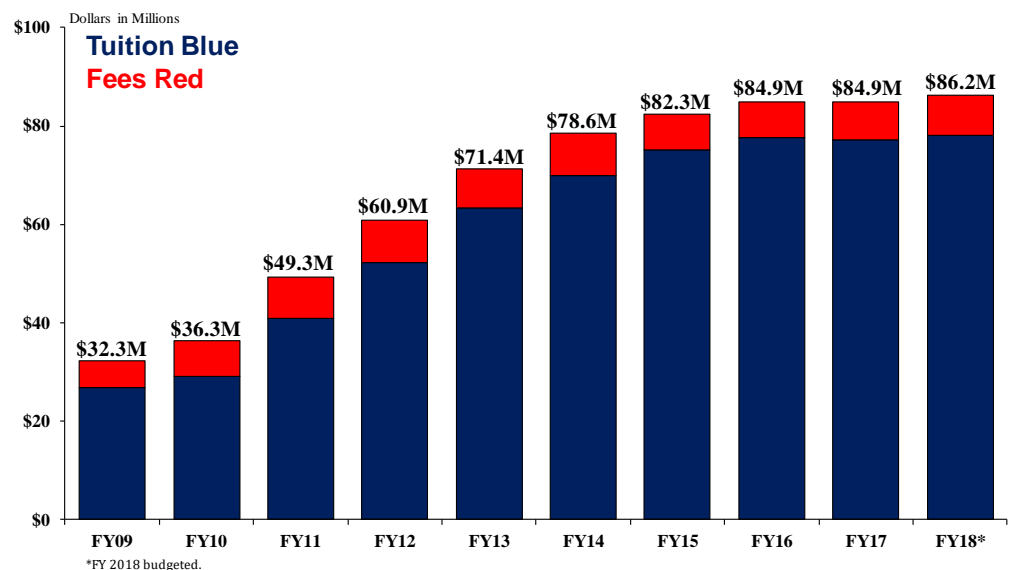
Figure 13
Federal Pell Grants and Illinois MAP Maximum Award Levels vs.
Entering General Undergraduate Tuition and Mandatory Fees



To ensure access the University has set aside supplemental funding to help the neediest students. As shown in the Figure 14, the cost of the Supplemental Financial Aid program began to increase several years ago as budget cuts to both ISAC and the University led to reductions in MAP grants and increases in tuition and fees.

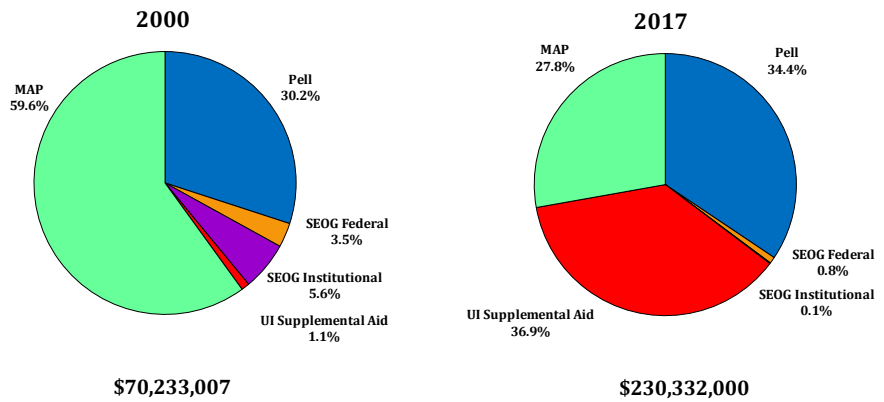
Figure 14
University of Illinois System
Supplemental Financial Aid Expenditures
FY 2009 to FY 2018

▼
Institutional aid in FY 2017 will exceed both Pell grants and MAP grants, and as such the University has become a major partner in the financial aid process.



As the University continues to balance quality with affordability, institutional aid has become a much larger part of the access for students. Figure 15 shows the increase in the total amount of aid as well as the substantial growth in our institutional aid in the last decade.

Figure 15
University of Illinois System
Undergraduate PELL, MAP, SEOG and UI Supplemental Aid



Source: IBHE Financial Aid Survey. FY 2017 is preliminary.

Average unmet need continues to increase across the University of Illinois System. **For FY 2019, we are requesting \$10 million to support additional scholarships for Illinois residents.** This funding will increase access and stem the flow of out-migration of students to other states for college.

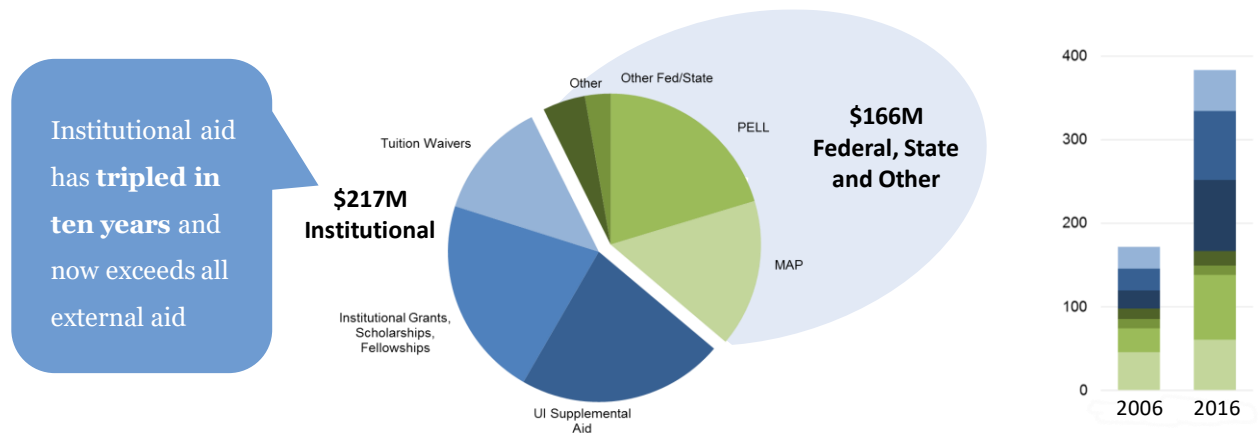
INVEST IN ILLINOISANS – TRIPLE I

Enhancing investment in Illinois undergraduates is critical to halt an alarming amount of out-migration that has left Illinois second only to New Jersey in the net number of students lost to colleges in other states. In 2015, 45 percent of college-bound high school graduates in Illinois enrolled out of state, up from 29 percent in 2002. This increased outmigration should be of great concern to all; research shows that most college graduates stay in the state where they earn their degrees. Along with driving economic growth, college-educated citizens bring a host of other benefits to the state. Studies show they are healthier and live longer, and are more likely to vote and volunteer in their communities.

The University of Illinois System intends to increase its ongoing efforts at retaining student talent for college and after graduation. The *Invest in Illinoisans*, or Triple I program, was introduced last year as a visible, public commitment to the citizens of the state. The Triple I program is part of the proposed U of I Investment, Performance, and Accountability Commitment (IPAC), a measure pending in the legislature that would provide predictable funding for university operations over the next five years in exchange for tangible performance goals that serve the needs of the state.

If IPAC is approved, The Triple I program would provide a minimum of \$170 million in annual financial aid for in-state students. To provide a sense of scope, this commitment represents 85 percent of our total institutional aid (over \$200 million annually) going to residents of the state of Illinois. As shown in Figure 16, we have devoted more and more resources to financial aid over time; total institutional aid just five years ago was \$136 million and only \$68 million a decade ago.

Figure 16
University of Illinois System
Undergraduate Financial Aid FY 2016



The five-year IPAC agreement would represent the single largest commitment to residential financial aid in the history of the State—at least \$850 million would be devoted to support for Illinois undergraduates during this multi-year time frame. As financial aid continues to grow through philanthropy, as we expect it will with our upcoming campaign, the U of I System would commit to devoting a substantial amount of that growth to in-state students during the five-year term of IPAC.

The proposed financial aid program would build on the U of I System's longstanding commitment to Illinois students and families. System-wide, more than 80 percent of our undergraduates this fall are Illinois residents—92 percent in Chicago, 83 percent in Springfield, and 72 percent in Urbana-Champaign.

IPAC is an innovative way forward through Illinois' current financial challenges, providing financial certainty for the U of I System in exchange for performance-based standards that serve Illinois students and the needs of the state.

The Triple I program ratifies our land-grant commitment to open our doors to every deserving Illinois student—providing levels of financial aid for in-state students over the next five years that would be unprecedented in our 150-year history.

DISTINGUISHED FACULTY RECRUITMENT

PROGRAM (\$10,000,000)

Overview

▶ The University of Illinois System–The Public's University–plays a central role in higher education, research and discovery, and economic development in the State of Illinois and beyond. The strategic framework launched in 2016 sets forth four overarching pillars to which our member institutions are committed:

- An institution of and for our students
- Research and scholarship with global impact
- A healthy future for Illinois and the Midwest
- Tomorrow's university today

All four of these pillars rely on the recruitment and retention of **faculty of the highest caliber**. One of the casualties of the state budget crisis is that the University of Illinois System has lost many award-winning faculty. For example, in 2016 Professor John Rogers, a world renowned engineer, was lured away from UIUC by Northwestern University. Rogers is a pioneer in the development of nanotechnologies that transform health care, such as the development of skin sensors that can track physiological health. He is a member of the National Academy of Engineering, a MacArthur Fellow, and a member of the National Academy of Science. When he left UIUC, he took all of his patent applications, his inventions, and his grant money with him. And there are many other examples.

The fact is that our peer institutions, public and private, recognize our budget challenges and are unabashedly raiding our universities because of it. In the last two years during the budget impasse, a **total of 321 tenure-system faculty across our three universities received firm outside offers from other institutions** (156 in FY 2016 and 165 in FY 2017). Almost 70 percent of these retention cases involved faculty at UIUC. Of course, exceptional universities are always going to be the target of faculty poaching. Yet the extent of these activities has reached an all-time high because of budget challenges. To provide some context, just 20 years ago (FY 1995) the number of faculty retention cases reached a modest 91 across all three universities.

It is imperative that we reverse this trend and aggressively woo distinguished faculty from around the country to Illinois. To assist our universities in attracting the most exceptional faculty, the President's Office has announced a three-year program to help attract high-level talent to our universities.

- Description** ► The Distinguished Faculty Recruitment Program will provide \$60 million over the next three years (\$20 million annually) to attract highly distinguished, superstar faculty across the System. The universities are expected to match these funds for each individual hire. The funds are to be used for start-up costs such as: the purchase of new equipment, renovation of space, graduate student support, and/or other needs associated with supporting the research and teaching needs of prominent faculty.
- Criteria** ► The goal is to attract tenured, star or rising star faculty from a range of disciplines who can transform our universities due to their exceptional scholarship and teaching. Universities can apply for matching funds to support the recruitment of tenured (associate or full) professors that:
- Are engaged in cutting-edge scholarship or creative activities
 - Will enhance the national and/or international reputation of the campus
 - Are experts in areas of high and/or emerging student demand
 - Will provide transformative excellence to college, campus, and System missions
 - Will enhance diversity in the unit and the college
 - Will strengthen interdisciplinary/transdisciplinary collaborations within and across campus units
- Process** ► The President's Office issued a call in September 2017 for recruitment proposals for the upcoming year. Each proposal should specify how the position and/or ideal candidate would be transformative to the university, using at least two of the criteria above. The proposal also should outline how the matching funds will be used. Proposals can involve open searches or search waivers that target specific candidates, but the request must be related to a specific individual. Each proposal will require support from the unit executive officer, the dean, and the provost/chancellor of the university. To ensure maximum flexibility given different faculty hiring cycles, proposals will be evaluated on a case-by-case basis as they are submitted. The President, Executive Vice President, and Vice President for Economic Development and Innovation will review the proposals, with the goal of distributing the resources across the three universities.

Funding

The three-year program will be supported by a combination of GRF, ICR, and gift funds. The total commitment (from the System and the three universities) to the Distinguished Faculty Recruitment Program is \$60 million. **We are requesting a total of \$10 million from the State of Illinois to help support competitive compensation packages and to provide ongoing investments in this critical program.**

ADDRESS FACILITY OPERATIONS NEEDS



OPERATION AND MAINTENANCE NEW AREAS

(\$1,129,700)

Overview

▶ For FY 2019 the University requests funding for the operation and maintenance of two new facilities. The total space to be supported is approximately 125,778 gross square feet (gsf). These new facilities are critical additions to the physical infrastructure required to support the University's mission.

The request of operations and maintenance dollars for new or remodeled facilities serving the academic mission of the University has decreased over the last decade with the lack of recent capital funding. While no funds were requested the last two fiscal years, the most current five year period where projects were requested, saw a need for \$5.6 million dollars to be reallocated from other sources to cover the lack of state support. Such reallocations, if continued, will seriously impact ongoing educational activities. Thus it is critical that the state provide funding for operating and maintaining facilities that are approved for construction.

For FY 2019, the University's request support of \$1,129,700 to operate and maintain two new facilities described below.

URBANA-CHAMPAIGN PROJECT

Design Center Building

▶ The proposed new Design Center will be a facility used by students from every discipline and background. It will serve both as a physical and intellectual hub, layering across the undergraduate experience a range of informal and formal opportunities and offerings to engage students in multi-and trans-disciplinary collaborations. This project will meet Illinois' vision for multi-disciplinary design and doing, while fostering a culture of student-led problem solving. The building will be an incubator of talent where students master skills by tackling real and pressing problems that lend themselves to design-based solutions. The highly visible center will connect a breadth of perspectives, spaces, and resources. The proposed \$48.0 million construction project will provide approximately 68,300 new gross square feet of flexible collaborative learning and idea generating, meeting, prototyping, digital imaging, and flexible display/gallery spaces. This new facility is to be located on the west terminus of the Military Axis on Fourth Street in

Champaign. A full year of operations and maintenance support is requested at \$614,700.

CHICAGO PROJECT

Incubator Lab Facility



The Incubator Lab Facility (ILF), formerly the Chicago Technology Park Research Center is located at 2211 West Campbell Park Drive in Chicago. The building was constructed in 1986 by the Illinois Medical District (IMD) and immediately transferred to the University of Illinois at Chicago. The management of the facility has gone back and forth between UIC and IMD over the years, with the latest move seeing IMD transferring management back to UIC. The existing building is in good structural condition with 57,478 gross square feet of space consisting of 35 wet laboratory suites. The building will be used by the College of Medicine to create an annex research wet lab and office space. \$515,000 is requested for a full year of operations and maintenance of this facility.

FACILITY RENOVATION SUPPORT

(\$15,000,000)

Overview



Physical facilities are a critically important component of the academic support structure necessary to conduct instructional, research and service activities in any institution of higher education. Academic facilities constructed and operated with State funds for the University of Illinois have a replacement cost of over \$7.2 billion. Most of these facilities were built to “institutional standards” that would ensure generations of use with proper maintenance and regular renovation. Toward this end, the University has attempted to create a consistent funding source to service its facilities infrastructure. Steady and sustainable revenue streams are crucial to maintain the University’s physical assets. This is vitally important as the University seeks to stem the tide from an ever increasing maintenance burden. For FY 2019, the University requests support to continue its ongoing efforts to protect the physical assets of the state. A variety of University of Illinois programs are today housed satisfactorily in buildings more than 100 years old and that experience can continue if adequate facilities funds are available.

THE NEED



Two-thirds of state constructed space was built prior to 1970.

Three factors contribute to the need for annual attention to the configuration and quality of the physical facilities supporting any academic program:

- Replacement Needs
Normal use inevitably causes wear and tear on building systems and components to the point at which their useful lives are exceeded and they must be replaced. This process is frequently described as depreciation and is universally recognized. If proper annual maintenance is not available for building systems, their useful lives are shortened. If replacement of worn-out building systems is not completed on a timely basis, significant backlogs of deferred maintenance needs arise, eventually resulting in larger and more costly major remodeling requirements.
- Realignment Needs
The needs of academic programs vary over time. As enrollments shift among fields of study, space needs change with them. As the state-of-the-art within fields of study changes, so too do the facilities needed to support new activities. In some cases, the entire functional use of space must shift to accommodate changes within or among academic programs.
- Renewal Needs
Technological advances can render both facilities and equipment obsolete,

sometimes at rates far exceeding their physically useful lives. The application of computing to every discipline within a university and the dizzying pace at which computing power, speed and applications continue to evolve is the most obvious example of such a change.

Several types of funding are required to meet the range of facilities operating, maintenance, renovation and replacement needs which universities confront annually. In Illinois, day-to-day operations and maintenance costs are funded through the annual operating budgets of colleges and universities. Major remodeling and new construction funds come from capital budget appropriations with annual sales of bonds which customarily carry 20-year debt retirement obligations. At this time, funds to address minor remodeling needs most often associated with the factors outlined above also come from capital budget sources. Unfortunately those funds in the capital budget have largely been nonexistent over the last decade.



Without an annually sustainable source of funds to support facilities renovation, the State's investment in college and university facilities is at risk.

Why is a recurring source of support for facility renovation required? There are at least three important reasons:

1. Public colleges and universities in Illinois have accumulated backlogs of deferred maintenance projects reaching hundreds of millions of dollars per campus. The State's investment in college and university facilities is at risk.
2. Once fully implemented, an operating budget based facilities renovation program would permit institutions to plan, schedule and complete minor remodeling projects more rapidly, more efficiently and less expensively than the present capital budget based program permits. Funding such projects from annual operating budgets would enable the State to devote its bond-funded activities to major remodeling and new construction needs.
3. The capital budget offers an uncertain and uneven level of support for renovation projects, which must compete with other capital needs for major remodeling and new construction.

SPACE REALIGNMENT, RENEWAL AND REPLACEMENT (SR³)

Approximately thirty years ago the University of Illinois defined the need for an operating budget based source of funds to address annual space renovation requirements. Using historical reviews of the useful lives of all building components, the University developed a formula based approach to provide an estimate of the annual expenditures which an institution would need for regular

replacement of components which had exceeded their useful lives (such as roofs, heating, ventilating and cooling systems and so forth) and which could also address the annual need for reconfiguration of space to address new functional requirements brought on by changes in academic programs. This approach was termed Space Realignment, Renewal and Replacement or SR³.

The SR³ formula is based on the assumption that certain building components (foundation, superstructure and exterior skin) have an infinite life, while other components need replacement on a predictable life cycle of normal use. Providing an annual allocation of one-half of one percent of the replacement cost of the facility is sufficient to address these needs. In addition, however, for academic facilities some provision must be made to address the need for functional changes in space and other programmatically driven space reconfiguration requirements. Adding these needs to the building component replacement requirements raises the annual amount necessary to meet SR³ requirements to two-thirds of one percent of the building's replacement cost.

The SR³ approach thus requires that an institution keeps an accurate inventory of the space it has and that it computes the replacement costs of all of its facilities by type of space. Fortunately in Illinois, the Capital Development Board and IBHE have worked together to provide institutions with construction cost estimates for the various types of space which colleges and universities require and with inflation estimates needed to escalate those costs for future construction timetables.

Summing the SR³ requirements for all the facilities on a campus establishes the amount which an institution should spend each year to make certain that its academic facilities are functionally appropriate for the programs it offers. For the three campuses of the University of Illinois for Fiscal Year 2019, the SR³ requirement is \$60 million.

SR³ Proven Effective

In 1979, the University of Illinois undertook a major restructuring of the debt for its auxiliary facilities and created an entity known as the Auxiliary Facilities System. An integral part of the debt restructuring was the initiation of an annual space renewal and replacement component in the operating budgets of all auxiliary facilities. Since auxiliary facilities do not face the same need for functional reconfiguration of space to meet changing academic program needs that academic



For three decades, the University has demonstrated the effectiveness of SR³ in keeping its auxiliary facilities in good working order.

facilities must address, the annual Auxiliary Facilities System space renewal and replacement requirement equals one-half of one percent of the facilities' replacement costs. This requirement represents a first dollar operating budget commitment for all University of Illinois auxiliary facilities. It has been in place over 30 years and it provides the best documentation possible for the effectiveness of the SR³ philosophy and approach to effective facilities maintenance. As a group, University of Illinois auxiliary facilities today are significantly better maintained than the University's academic buildings.

The IBHE has endorsed many of the principles embodied in the Space Realignment, Renewal and Replacement approach. For more than a decade IBHE has recommended and the General Assembly and Governor have supported a capital budget based Repair and Renovation (R & R) program which uses the SR³ formula approach to allocate funds among institutions for minor remodeling projects defined with considerable flexibility by the institutions. Unfortunately, the capital R & R initiative, when funded, has been funded at approximately one-third of the annual need which the SR³ formula prescribes for each institution. There has only been one fiscal year in the last decade where the R & R funds have been released for University use. A backlog of critically important R & R projects is growing to near crisis proportions, emphasizing dramatically the need for regular, recurring attention to facilities renewal, realignment and replacement requirements.

FY 2019 OPERATING BUDGET REQUEST FOR FACILITY RENOVATION



SR³ is simple, straightforward, equitable, comprehensive and cost effective.

The need for an operating budget based program which can address a variety of facilities needs facing the University of Illinois has grown to the point that its priority matches the need for new or expanded academic program funds. For FY 2019 the University of Illinois will continue the program and seek to add incremental funds necessary to fund the SR³ formula. **For FY 2019, the University seeks \$15 million for this multi-year initiative.**

Funds provided under this program would be used to meet facilities needs arising in three distinct areas:

1. To accelerate the attack on a burgeoning backlog of deferred maintenance projects centered on building system components well beyond their useful lives.
2. To address functional changes in space configuration caused by program changes or state-of-the-art changes in instruction and research. Upgrading teaching laboratories would be a significant element in this category.
3. To address continually changing infrastructure needs to accommodate changes in technology.

The University strongly believes that the SR³ formula approach is the most effective mechanism to implement an operating budget based facilities renovation program.

The SR³ approach offers numerous advantages, which include the following:

- SR³ is simply defined and easily understood. Its components (amount of space maintained with State funds, space inventory by type, replacement costs) can be easily computed by all colleges and universities and are elements which institutions, the IBHE and legislative and executive agency staff are very comfortable and have dealt with for a number of years.
- SR³ is easy to implement. All of its components are already in place at all public colleges and universities participating in the capital budget R & R program.
- SR³ is equitable to all institutions regardless of size or complexity.
- SR³ effectiveness and impact is demonstrable, since it has been in place nearly 40 years in the University of Illinois Auxiliary Facilities System.
- SR³ is less costly than the current capital budget system, since it improves efficiencies in project planning, scheduling, completion and it requires no debt service.
- SR³ is easily audited through a review of individual projects planned and completed.

A period of several years will be required to adapt to annual spending on facilities improvement projects on the order of magnitude provided by the SR³ approach. In addition, some reappropriation mechanism will eventually be needed to ensure that funds made available for facilities improvements in the early years of the program could be fully expended on projects which might require several months of planning and up to one year after that to complete. As the program becomes fully operational, it is expected that a portion of each year's appropriation would be devoted to

planning and design for future projects, which would allow construction to start as soon as the new fiscal year began.

Finally, it is still desirable that an operating budget based facilities improvement program would complement the existing capital budget based R & R program while the existing backlog of deferred maintenance projects is reduced. Once the SR³ program is fully implemented in the annual operating budget at an appropriate level of support, it could be expected that it would replace the capital R & R program. The capital budget could then be devoted to major remodeling projects and new construction initiatives.

MEET INFLATIONARY AND OTHER COST INCREASES



PAYROLL COST INCREASES

(\$200,000)

Overview

▶ The University of Illinois System has faced increasing requirements for specialized payroll-related expenditures without receiving commensurate funding to cover them. As one example, payouts for federally-mandated Medicare contributions have placed stress on the University's budget in recent years. Although years of major reallocation for federal Medicare have brought the budgets more in line with expenditures, we must continue to fund the annual growth in these mandates. The University is required by federal law to match new employees' contributions to Medicare and for certain employees, to Social Security. Increases in funding are essential to provide for these unavoidable expenditures.

MEDICARE AND SOCIAL SECURITY CONTRIBUTIONS – \$200,000

Effective April 1, 1986, the federal government mandated participation in the Medicare system by all newly hired State and local government employees not covered under the Social Security system. These employees and their employers are responsible for equal portions of the FICA Medicare Tax of 1.45% of gross pay. Additional legislation, effective July 1, 1991, requires employees not covered by the State University Retirement System to participate in the Social Security system.

▼
Medicare cost increases present mandatory, unavoidable budget requirements.

Up until the mid-1990s, the Medicare Tax of 1.45% was capped at \$135,000 of gross pay. In FY 1995, federal legislation removed the cap and now allows the 1.45% tax on the entire gross payment. This action, with an effective date of January 1, 1994, significantly increased Medicare expenditures for the second half of FY 1994 and subsequent years.

Expenditures have grown at a rapid rate as a result of the changes in Social Security requirements as well. Although state appropriations for these costs also have increased, until recently they had been insufficient in meeting actual needs. Table 2 details annual appropriations and expenditures along with each year's percentage growth rate.

Table 2
State Appropriations and Tuition Expenditures
for Medicare and Social Security Costs
(Dollars in Thousands)

<u>Fiscal Year</u>	<u>State Appropriation & Tuition Budget</u>	<u>Expenditures</u>	<u>% Change in Expenditures</u>
2008	\$ 12,037.1	\$ 13,440.7	-
2009	14,241.6	14,574.6	8.4%
2010	15,285.6	13,858.6	-4.9%
2011	15,385.6	14,366.6	3.7%
2012	15,340.6	14,765.2	2.8%
2013	15,725.6	15,721.1	6.5%
2014	16,122.6	16,740.4	6.5%
2015	16,972.6	18,022.9	7.7%
2016	16,303.8	18,044.3	0.1%
2017	18,292.6	17,992.9	-0.3%
2018	18,492.6	18,442.7 (est.)	2.5%

In FY 2018, expenditures are expected to rise in conjunction with the associated salary program. **An increment of \$200,000 is requested for the FY 2019 appropriation.** Because it is a federal mandate, this is a nonnegotiable and unavoidable increase for the University.

INFORMATION TECHNOLOGY AND SECURITY UPGRADES

(\$4,300,000)

Overview

▶ An increment of \$4.3 million is requested for information technology and security upgrades. Technology is embedded in every core mission of the University of Illinois. Our classrooms are infused with computers, projectors, and clickers; our students bring an average of four to five portable devices to campus each year, which they use non-stop as they travel from resident halls and apartments to classrooms and labs; and our world-class researchers need cutting-edge hardware and software to solve intractable societal problems. The University of Illinois System is known across the state and the world as a technology-rich, innovation hub, mandating that we stay up-to-date in information technology. And this effort is expensive. We work hard to find efficient ways to operate through shared services and technological innovations that save time and money. Yet there are still many unavoidable costs. Some of these are:

- **Security risks** to information technology are significant and increasing. As a result, vendors publish frequent security patches, and we must remain on current, supported hardware and software platforms in order to accept and implement these patches.
- As more **processes become automated**, a greater number of individuals require access to and increased usage of systems. This increasing reliance upon electronic systems and related data stores means we need to spend money on employee access, training, security and equipment that will ensure that work can be accomplished.
- The University's increasing dependence upon **electronic records** and increasing use of document management is resulting in increases in the amount of disk storage required.
- Having **up-to-date hardware and software** has become a necessity due to the increasing number and complexity of business rules that must be supported. Some of these change frequently, such as financial aid with multiple regulatory upgrades required throughout the year. Our systems must maintain currency, because of the complex interdependencies among hardware platforms, software infrastructure (e.g. operating systems, data base management systems) and the application systems that support those business rules.

This requested increment is intended to address growth in the following four areas of hardware and software:

- Growth in hardware needed to continue existing services.
- Increases in software maintenance expenses.
- Increased hardware and software expenses due to new projects.
- Hardware refresh.

In the past, we have tried to manage technology costs in incremental ways or by waiting until we had a major technology initiative, such as the UI-Integrate project. It is clear that this approach is not sustainable. In many ways, the information technology issue is similar to the deferred maintenance being accrued because of our aging infrastructure. We need a special, dedicated pool of funds to ensure that our universities stay competitive in this arena.

The requested increment of \$4.3 million would not be sufficient to cover all of our anticipated incremental expenses, especially big ticket overhauls or replacements. However, it would help with a growing list of more moderate upgrades that are crucial to our students, faculty, and staff. Without allocating additional recurring funds, the University would have to face a number of problematic approaches to IT management such as:

- Dropping maintenance on some components. This puts the University at risk of: a) security breaches due to unavailability of critical software patches in unsupported environments, b) possible system failures resulting in loss of service, and c) diversion of limited, existing technology staff to resolving failures thereby increasing the time to correct problems and raising the cost of new projects.
- Use of out-of-date, unsupported hardware. This puts the University at risk of being unable to run current software versions and possible hardware failures resulting in loss of services.
- Reducing capacity of services as components fail and potentially rationing services.

By establishing funding that will cover a significant portion of the anticipated needs, we can maintain up-to-date, well-functioning technology systems and hardware at the University. This approach is vital to ensuring our missions of providing exceptional education, scholarship, public service, and economic development for the State of Illinois.

**SUMMARY OF THE FY 2019
OPERATING BUDGETING REQUEST**



SUMMARY OF THE FY 2019 OPERATING BUDGET REQUEST

(\$97,965,200)

Overview



The University of Illinois System's FY 2019 operating budget request seeks to accomplish two important goals. The first is to restore core state support to original FY 2017 appropriation levels (\$67.1 million) in order to protect our in-state students, guarantee our overall academic competitiveness, and contribute to the State's economic development. The second is to provide the University of Illinois System with additional capacity (\$30.9 million) to implement our Strategic Framework.

Our 2016 Strategic Framework calls on us to serve more students, conduct research that addresses state and national challenges, and ensure that the Midwest is a vibrant and healthy region of the country. The State of Illinois needs its flagship system now, more than ever. We can help the state to keep and attract talent and to grow the state's infrastructure and economy. To do all this, we urgently need a modest and healthy FY 2019 budget.

The requested increase in funds will be spent on three broad categories. First, and most importantly, we will strengthen academic quality by recruiting high-achieving students and faculty.

We propose to devote \$10 million in additional scholarships for Illinois students in order to stem the flow of high school graduates to out-of-state universities. Special emphasis will be given to attracting underrepresented students, including those from low-sending counties in Illinois. Funds also will be devoted to a program to recruit distinguished, world-class faculty as well as to provide competitive salary compensation to retain current faculty.

Second, we will use the requested funding to address our facility maintenance needs. The University of Illinois System has over \$2 billion in deferred maintenance projects, many of which require urgent attention. Classrooms, labs and faculty offices suffer from leaks, structural damage, poor heating and air flow, and disability

SUMMARY OF THE FY 2019 OPERATING BUDGET REQUEST

access challenges. Over the years, the three universities have been investing a portion of their operating fund as well as philanthropic gifts to address this need as best as possible but it is not enough. The proposed request will provide crucial resources to bolster and enhance academic spaces.

The final category requested is to address unavoidable inflationary cost increases related to payroll as well as crucial information technology upgrades.

Requested Operating Budget details are shown in Table 3.

Table 3
University of Illinois System
FY 2019 Operating Budget Request
(Dollars in Thousands)

I. Strengthen Academic Quality		\$ 77,335.5
	<i>% of FY 2018 Base</i>	<i>4.2%</i>
A. Competitive Compensation	\$ 57,335.5	
1. Salary Improvements - 2.0%	\$22,934.2	
2. Compression, Market, Equity and Retention (CMER) - 3.0%	34,401.3	
B. Resident Undergraduate Scholarship Program	10,000.0	
C. Distinguished Faculty Recruitment Program	10,000.0	
II. Address Facility Operations Needs		\$ 16,129.7
A. O & M New Areas	\$ 1,129.7	
B. Facility Maintenance Support	15,000.0	
III. Meet Inflationary and Other Cost Increases		\$ 4,500.0
A. Payroll Cost Increases	\$ 200.0	
1. Medicare	\$ 200.0	
B. Information Technology & Security Upgrades	4,300.0	
Total Request		\$ 97,965.2
	<i>% of FY 2018 Base</i>	<i>5.4%</i>

FY 2018 Base: \$1,825,390.4
Base = EAF/GRF + Tuition

CAPITAL BUDGET REQUEST FOR FY 2019



CAPITAL EXECUTIVE SUMMARY



CAPITAL EXECUTIVE SUMMARY

An institution of the size, scope and complexity of the University of Illinois faces a recurring array of facility needs every year. Indeed, the capital facilities make up the University's largest asset and provide the foundation to attract and retain top quality, faculty, staff and students. The fiscal year 2019 request focuses on several themes in the capital budget that directly support the academic mission of the University of Illinois System as shown in Figure 1.

Figure 1
University of Illinois System
FY 2019 Capital Budget Themes



The first theme related to capital continues our longstanding request for crucial funds for **Repair and Renovation** projects at the three campuses. To date, we have a backlog of roughly \$2B in deferred maintenance, system-wide. As buildings age through their normal life cycles, it is crucial to address minor repair and renovation needs as they occur. Failure to do so accelerates deterioration and leads to costly major remodeling requirements more quickly than would be necessary if prudent attention to annual repair and renovation were possible. Changing programmatic emphases in academic units also create the need for relatively small remodeling projects, which can be addressed quickly to make existing space more useful for emerging academic priorities. This year's request totals \$60 million to combat the remodeling and rehabilitation projects at each campus. Much of this money will be used to update classrooms, labs, studios, and faculty-student collaborative spaces.

The second theme—**Innovation and Workforce Development**—represents funds for major renovation projects as well as new facilities to keep the University on the forefront of invention as well as developing the workforce of the future to support a vibrant economy in the State of Illinois. Included here are several exciting initiatives, such as the Math/Statistics/Data Science Collaborative Facility (Altgeld/Illini Hall renovation) at

UIUC and the Advanced Engineering Facility at UIC. Both of these efforts would greatly enhance STEM education, research and training at our two largest universities.

The third focus of the capital budget seeks to rehabilitate the main libraries at each campus in order to meet the changing educational and research needs of diverse users. The libraries play a vital role at our three universities, supporting students, faculty and staff. They also provide resources and information services to the citizens of the State as the largest contributor to the statewide library network with over 40% of the unique titles while providing over 20% of the statewide library loans through the network.

The allocation by university is shown in Figure 2.

Figure 2
University of Illinois System
FY 2019 Capital Budget Request by University

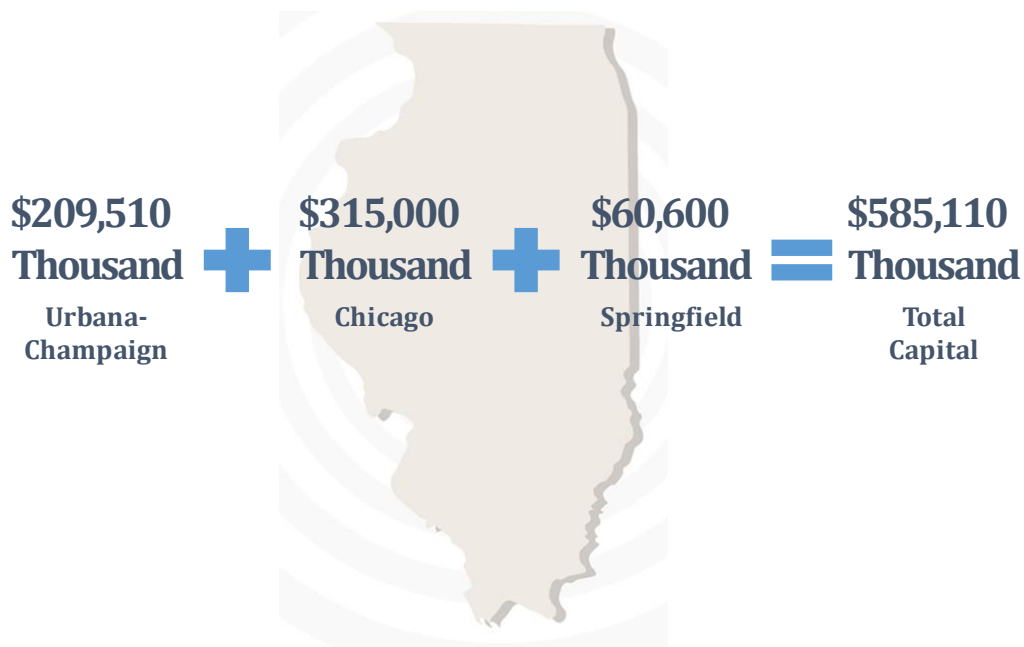
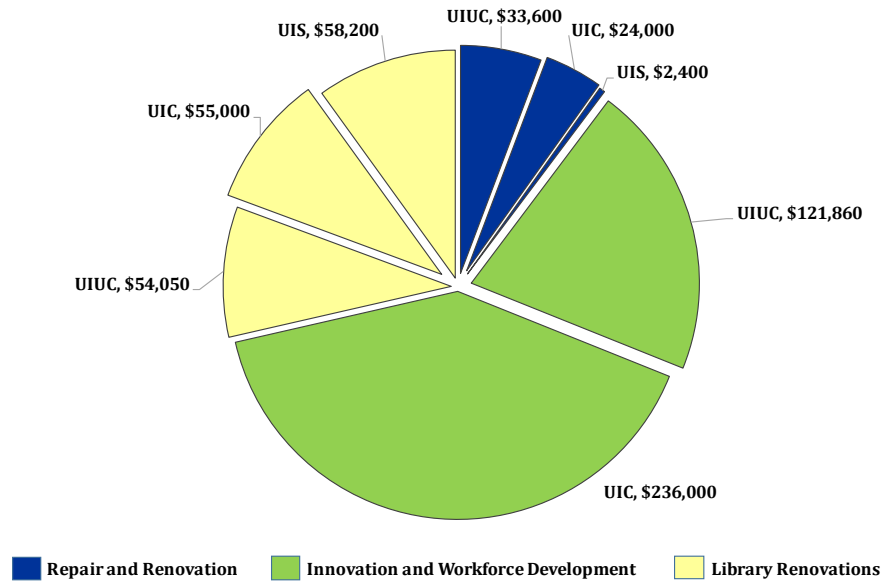


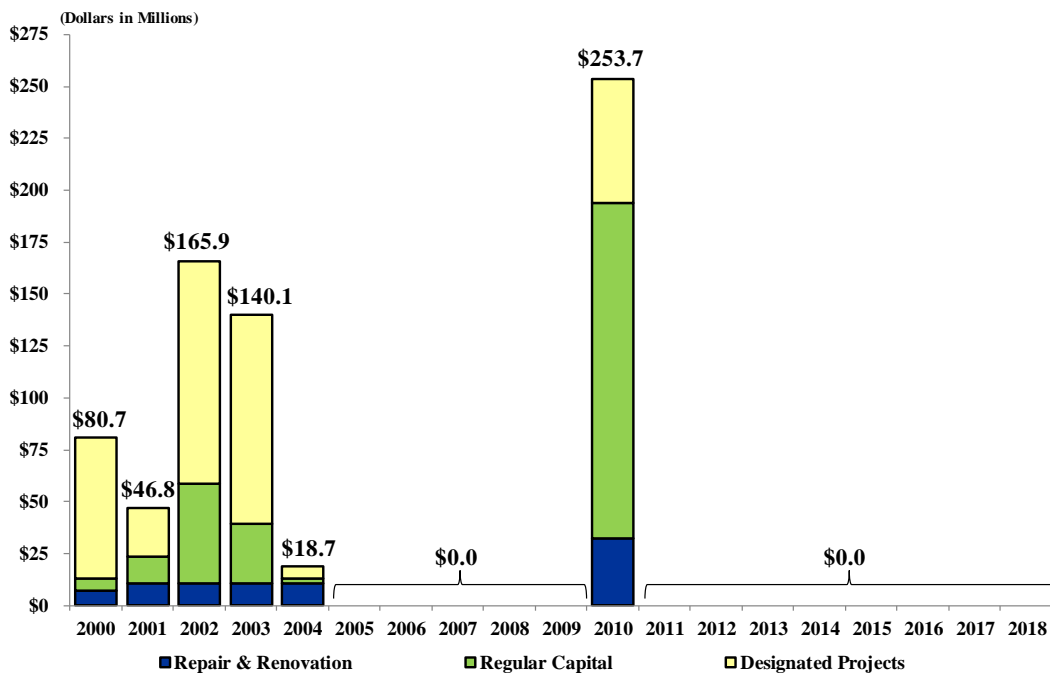
Figure 3 provides the campus breakout by theme. In addition to the FY 2019 Capital Budget themes, the University seeks the fulfillment of an appropriation made several years ago for the Advanced Chemical Technologies Building at Chicago. The building will facilitate collaboration between researchers and provide space to advance technology transfer, education, and engagement.

Figure 3
University of Illinois System
FY 2019 Capital Budget Request by University Detail
(Dollars in Thousands)



The University is coming off of a very long period with a limited capital budget appropriation. Over the last 10 years, we have received a new capital appropriation *only once* and that was in FY 2010 (see Figure 4).

Figure 4
U of I Capital Appropriations FY 2000 – FY 2018



The fiscal year 2010 capital budget approved by the Governor and General Assembly was a welcome relief in the funding drought. However, that progress was short-lived and the University has not received any new capital appropriation in the last eight fiscal years.

Consistent and steady state funding is critically important to maintain the physical plant. There is no doubt that costs rise and safety is at risk when we do not attend to maintenance of our facilities on an annual basis. When that is not possible, a backlog of unfunded projects grows quickly and accelerates the cycle of deterioration in facilities. In turn, the University of Illinois System suffers from a decline in the environment that is so desperately needed to attract talented faculty and students.

For FY 2019, the University of Illinois System requests a Capital Budget of \$585,110,000. A detailed project list is provided in Table 1. Additionally, the University also seeks fulfillment of an appropriation made several years ago for the Advanced Chemical Technologies Building at Chicago.

Table 1
University of Illinois System
FY 2019 Capital Budget Request
(Dollars in Thousands)

	<u>Urbana</u>	<u>Chicago</u>	<u>Springfield</u>	<u>Total</u>
I. Repair and Renovation				
A. Repair and Renovation	\$33,600	\$24,000	\$2,400	\$60,000
II. Innovation and Workforce Development				
A. Math/Statistics/Data Science Collaborative Facility (Altgeld/Illini Hall renovation)	43,000			43,000
B. School of Art & Design Thinking and Learning Addition	64,860			64,860
C. Animal Nutrition Feed Processing Research Facility	14,000			14,000
D. Advanced Engineering Facility		86,000		86,000
E. Advanced Pharmaceutical and Innovation Institute		150,000		150,000
III. Library Renovations				
A. Campus Library Upgrades	54,050	55,000	58,200	167,250
Total Request	\$209,510	\$315,000	\$60,600	\$585,110
IV. Legacy Appropriations				
A. Advanced Chemical Technology Building		\$67,200		\$67,200

CAPITAL REQUESTS



PRIORITIES

(\$585,110,000)

Overview

▶ The University's FY 2019 Capital Budget Request consists of seven projects within three themes at a total cost of \$585,110,000 as detailed below. In addition to the FY 2019 Capital Budget themes, the University seeks to see fulfillment of an appropriation made several years ago for the Advanced Chemical Technologies Building at Chicago. Further information for each project may be found in the Appendices.

REPAIR AND RENOVATION – \$60,000,000

Repair and Renovation \$60,000,000 – All Campuses

The first priority is a \$60,000,000 Repair and Renovation request, which is comprised of projects at the University of Illinois at Urbana-Champaign, the University of Illinois at Chicago and the University of Illinois at Springfield. These projects, while not large enough to compete with major remodeling requests, represent a significant, real funding need. A high priority on renovation and renewal must be maintained by institutions with facilities with the size, scope and age of the University of Illinois System. The Repair and Renovation request is vital for the continued renewal of existing University facilities, provision of up-to-date support for academic programs and protection of the State's investment in capital facilities.

UIUC - \$33,600,000
UIC - \$24,000,000
UIS - \$2,400,000

INNOVATION AND WORKFORCE DEVELOPMENT – \$357,860,000

Math/Statistics/Data Science Collaborative Facility (Altgeld/Illini Hall renovation) \$43,000,000 – Urbana

A comprehensive renovation is desired for historic Altgeld Hall and the 2nd and 3rd floors of Illini Hall. These spaces serve the Departments of Mathematics and Statistics, the Mathematics Library, and the campus classrooms in Altgeld Hall. The department serves students from across the campus as 83% of the student population has taken a class realizing the integral part mathematics and statistics play in a global economy. This has served to drive enrollment up 90% and degrees up over 100% in the last decade.

UIUC - \$121,860,000
UIC - \$236,000,000

The project will restore Altgeld and Illini Halls to a level consistent with a world class academic enterprise. The classrooms must be improved, the library refurbished, and departmental offices, computer labs and common areas require comprehensive modernizations. Many ancillary, but essential, infrastructural elements such as heating, cooling, data technology, roofing, masonry, flooring and windows must be brought up to modern standards for occupant comfort, safety and progressive instructional practices. Landscaping will be addressed, as will many deferred maintenance elements that have been identified in the campus-wide facilities condition audit. Total project budget is \$90,000,000 with \$43,000,000 being requested from the State.

School of Art and Design Thinking and Learning Addition

\$64,860,000 – Urbana

Built in the late 1950s, the Art and Design Building has undergone only minor repairs and upgrades. The current condition of the building reflects the wear and tear of 60 plus years of continuous use as an administrative, teaching and research facility. It suffers from general fatigue and deterioration of comfort and visual quality. Also during this time, requirements of the School's disciplines have undergone dramatic change, creating entirely new functional demands which were unimagined when the building was conceived. New program and equipment needs have rendered the original space configuration outmoded, inefficient and ill-suited to their intended purposes. This project will renovate and upgrade the existing facility and provide an addition to consolidate all functions, activities and programs into one facility.

This renovation will allow for a symbiotic relationship with the new Siebel Design Center which will be a facility used by students from every discipline and background. These facilities will serve both as a physical and intellectual hub, layering across the undergraduate experience a range of informal and formal opportunities and offerings to engage students in multi-and trans-disciplinary collaborations. This project will meet Illinois' vision for multi-disciplinary design and doing, while fostering a culture of student-led problem solving. The building will be an incubator of talent where students master skills by tackling real and pressing problems that lend themselves to design-based solutions. Total project budget is \$85,140,000 with \$64,860,000 being requested from the State.

Animal Nutrition Feed Processing Research Facility \$14,000,000 – Urbana

The Department of Animal Sciences is world renowned for equipping future leaders in animal production and feed manufacturing industries. This would not be possible without the cornerstone of their nutrition program, the Feed Processing Facility and Service Unit. This facility will not only support our world-renowned graduate programs in animal nutrition, but it will also enhance our ongoing partnerships with the feed, grain and biofuel industries, and offer opportunities to enhance educational programs in feed milling and processing. The proposed Animal Nutrition Feed Processing Facility is critical to the future training of graduate students in animal nutrition and management. Graduates with this training are in high demand at this time. The continuation of these training programs is critical to the development of future professionals to meet the needs of the feed manufacturing and animal production industries. Total project cost for this project is \$14,000,000 requested from the State.

Advanced Engineering Facility \$86,000,000 – Chicago

The College of Engineering plans to construct a new 165,000 gross square foot building on the footprint of Lot 10, located north of Taylor Street adjacent to the Science and Engineering Laboratory West and the Engineering Research Facility. The College of Engineering has experienced recent enrollment growth and is expected to grow by an additional 628 engineering students by 2021. This facility will accommodate this growth and the subsequent need for research space.

This building will help the college attract future students and faculty and will provide modern research and educational facilities to students and researchers. This six-story building will include a basement, three large auditoriums, twenty-six classrooms/seminar rooms, twenty dry research laboratories and forty-two faculty offices. It is envisioned that this building will serve as an experiential learning and design hub, providing space for holistic and interactive learning and interdisciplinary collaboration space.

An open plan for the first floor will allow for informal, collaborative space and will also feature a café, exhibition space and a digital video wall. It is anticipated that the building façade will be constructed with a mixture of concrete and transparent, energy efficient glazing systems. The interior will feature exposed structure and

mechanical systems, wood shutters and copper cladding design. The building will also build upon the Chancellor's Climate Commitments by featuring geothermal heating/cooling systems, daylighting and energy efficiency features, HVAC sensor controls, and a green roof. Total project budget is \$86,000,000 being requested from the State.

Advanced Pharmaceutical and Innovation Institute \$150,000,000 – Chicago

The University of Illinois at Chicago is requesting \$150,000,000 to construct a new 250,000 gross square foot building at the intersection of Ashland Avenue and Taylor Street. The vision for the Advanced Pharmaceutical and Innovation Institute will be to create an interactive environment employing interdisciplinary and multidisciplinary teams to address fundamental biological and biomedical questions. This Institute will facilitate a new model for commercializing basic-findings and innovative therapies with international leaders in the pharmaceutical and healthcare industry. The facility will provide new opportunities for innovation in drug discovery, pharmaceutical product development, and personalized medicine; provide state-of-the-art space for contemporary biomedical research, which requires intense collaborations across different campus disciplines with investigators having unique and specialized skills; develop a transfer informative center of research excellence housed in cutting-edge core facilities that will benefit the entire Institution; and drive growth as a major economic engine for the State of Illinois.

The outcomes will be to leverage the expertise in drug discovery to develop new innovative healthcare practices which will lead to cost savings and improved outcomes; drive commercialization, business development, start-ups, and healthcare innovation by bringing pharmaceutical discovery to the forefront; bring together international industry leaders with our own nationally-recognized researchers to focus on new technologies, new discoveries, and new treatments; create synergies through public-private partnerships to address disparities in drug delivery and access to healthcare.

The University of Illinois Hospital & Health Sciences System (UI Health) continues to be a significant resource for healthcare innovation within the State of Illinois, which includes partnerships such as the Prior Authorization for State Medical Programs and the Medication Review Program. The Advanced Pharmaceutical and

Innovation Institute will create new jobs and develop new healthcare products and discoveries that will create a significant economic impact for the State of Illinois. The construction of this building will allow the expansion of the University's top-ranked research programs.

LIBRARY RENOVATION – \$167,250,000

UIUC - \$54,050,000

UIC - \$55,000,000

UIS - \$58,200,000

Main/Undergraduate Library Redevelopment \$54,050,000 – Urbana

The High Density Storage (HDS) Addition will be the first step in a multi-phased project to reconstruct the Main and Undergraduate Libraries. This addition to be located on the west end of the existing 6th stack will be primarily a large climate controlled vault capable of storing 1.5M volumes in an 11,000 square foot footprint. The total area of the HDS Addition with the associated mechanical room is approximately 23,000 square foot. As part of this project, a new utility tunnel will be constructed to connect the existing Main Library Power Plant to the West Sixth Street steam tunnel and the new HDS Addition. Also part of this project will be the construction of a new Lecture Hall 66, a building addition to the southwest side of the Main Library.

The HDS shelving will be protected with an in-rack fire protection system and the HVAC system for the addition will be designed to maintain 65 degrees and 50% RH year round. A new mechanical room will be constructed to house the mechanical and electrical systems to serve the HDS. The mechanical room roof will be designed to support new cooling towers that will replace the current cooling towers on the roof of the stacks. This project will construct the new cooling towers and demolish those currently existing on the roof of the stack area. Interior renovation work in the existing Main Library Building as part of this project will consist of a 3,600 square foot renovation of the main north/south corridor on the first floor, a 3,300 square foot renovation of the Grand Stair located between the north/south corridor and the Marshall Gallery and a renovation of the mechanical systems serving the existing 11,600 square foot Delivery Room on the 2nd floor. \$54,050,000 is requested from the State.

Daley Library Addition \$55,000,000 – Chicago

An addition to the Richard J. Daley Library will supplement student academic life through the inclusion of a new information commons, an auditorium, a large café, a winter garden and a temporary exhibit space. A central atrium will allow natural light deep into the building and provide a visual connection to the upper floors. A new 200-seat auditorium will provide a public meeting venue to offer programs, lectures, performances, readings and other events related to library and campus interests. To promote 24/7 campus life, a larger café with food prep areas and seating will be central to the ground floor. To create spaces that promote research, learning, and collaboration, the third floor will include a double height reading room, large group meeting spaces, and small group meeting rooms. \$55,000,000 is requested from the State.

Main and Undergraduate Library Redevelopment \$58,200,000 – Springfield

The purpose of this project is to renovate the Brookens Library. This 200,000 square foot facility was constructed in 1975 as the first major permanent building on the Springfield campus. While the building has served the campus well, it is now in need of renovation. The building's deficits include severe overcrowding and lack of growth space for the collection, technology and services; a confusing physical layout; an inefficient window system that creates uncomfortable cold and hot spaces; poor lighting system; severe acoustic problems; worn and outdated finishes and furnishings; and inaccessible spaces as defined by the Americans With Disabilities Act. The deferred maintenance in the building makes up a large portion of the campus' overall deferred maintenance as cited in the VFA study. Renovation will allow the university to address the facility's deficits and reposition learning, teaching, research services, supporting technologies and collections.

Brookens Library currently is split into two separate sections, a library side and an academic office/classroom side, both on level 3 and level 4. Academic classrooms and offices are located on both levels, primarily in the north and west sides of the facility, with the library collections and reader study areas located in the south and east sides. The College of Education is housed on the third level, as are the majority of the classrooms located in building. This configuration has presented numerous problems including way finding, uneven temperature control and inefficient use of space. This project creates an opportunity to recreate the library into a superb

learning centered and technology rich facility by moving all the academic program space in the facility to one level and by relocating the library's services and collections to areas that will provide the optimal use of space.

Other improvements include the ability to provide better temperature control to all spaces in the facility and improve way finding in the facility. Renovation of the HVAC and mechanical systems will allow the university to dramatically improve the energy efficiency of the facility in addition to providing optimal humidity and climate controls that are required in such areas as the university archives.

Additionally, renovation of the facility will allow the library to provide optimal use of the space by relocating several library services and collections to renovated space that will better serve the students and campus community. This project also includes providing an enhanced entrance to the facility that will increase Brookens Library's presence on the UIS quadrangle. This \$58,200,000 renovation of the Brookens Library will rehabilitate the building into a state-of-the-art learning center, extend the life of the facility and profoundly improve the quality of scholarly communications across the university.

LEGACY APPROPRIATION – \$67,200,000

Advanced Chemical Technology Building \$67,200,000 – Chicago

UIC - \$67,200,000

The Advanced Chemical Technology Building (ACTB) will be a 144,600 gross square foot state-of-the-art natural sciences research facility that will be physically connected to the south of the Science and Engineering South (SES) building. The facility will contain laboratory space for chemical scientists and other synergistic groups of researchers who will benefit from contiguous research space. It will provide space for labs, offices for Principal Investigators, and shared support spaces. The building design will facilitate collaboration between researchers and will provide space to advance technology transfer, education, and engagement. This will result in sharing of technology and development of novel, highly fundable research ideas that would not otherwise have emerged from isolated work groups. Chemistry is an integral part of all work in biotechnology and this building provides facilities essential for research at the leading edge of chemistry and biochemistry.

It is expected that researchers moving into the ACTB will generate significant additional research expenditures due to increased collaboration, generate new commercialized technology, annually generate 8 new invention disclosures, 4 new patent filings, and 4 new licenses and options, including new start-up companies. In the bio-pharmaceutical field, each new job will generate another 5 jobs, so the future potential impact is immense. Construction of the ACTB will allow some research activities occurring in obsolete facilities to move into the new building, freeing up space that can then be converted to critically needed teaching laboratory facilities. This teaching laboratory space is needed to support departmental growth, increased student enrollments and improved graduation rates through the elimination of course scheduling bottlenecks.

The project design and construction documents have been completed, but the project was placed on hold by the State prior to release of the construction bids in 2015. In order to meet the pressing space requirements for research and teaching laboratory activities of these expanding departments, it is vital that funding for this project moves forward. It is estimated that \$67.2M from the State and \$44.2M from the University would be needed as a result of previous cost-sharing agreements and cost escalation resulting from the project's delay. The investment provided by the state, campus, colleges, and departments will demonstrate the exceptional commitment of Illinois to play a major role in job creation and in research in chemistry, biochemistry and biotechnology.

APPENDIX I
REPAIR AND RENOVATION – UNIVERSITY WIDE



REPAIR AND RENOVATION

UNIVERSITY WIDE – \$60,000,000



Requested Funds: State \$60.0M 14 Projects at 3 U of I campuses

Stated most simply, physical facilities are a critically important component of the academic support structure necessary to conduct instructional, research and service activities in any institution of higher education. Academic facilities constructed and operated with State funds for the University of Illinois have a replacement cost over \$7.2 billion. Most of these facilities were built to “institutional standards” in construction materials and techniques, meaning that with proper maintenance and regular renovation of components which have exceeded their useful lives, the facility can have a nearly infinite life. A variety of University of Illinois programs are today housed satisfactorily in buildings more than 100 years old and that experience can continue if adequate facilities funds are available. The University of Illinois faces an array of facility related needs each year but a major component in that capital portfolio is repair and renovation to existing facilities. Buildings and the infrastructure systems that support them have finite useful lives; masonry decays, roofs deteriorate, heating and cooling systems wear out. As buildings age through their normal life-cycle it is crucial to address repair and renovation needs that normally arise. Failure to do so accelerates deterioration and leads to more costly repairs more quickly than would be necessary if prudent annual attention to annual repair and renovation were possible.

Three factors contribute to the need for annual attention to the configuration and quality of the

physical facilities supporting any academic program:

Replacement Needs – Normal use inevitably causes wear and tear on building systems and components to the point at which their useful lives are exceeded and they must be replaced. This process is frequently described as depreciation and is universally recognized. If proper annual maintenance is not available for building systems, their useful lives are shortened. If replacement of worn-out building systems is not completed on a timely basis, significant backlogs of deferred maintenance needs arise, eventually resulting in larger and more costly major remodeling requirements.

Realignment Needs – The needs of academic programs vary over time. As enrollments shift among fields of study, space needs change with them. As the state-of-the-art within fields of study changes, so too do the facilities needed to support new activities. In some cases, the entire functional use of space must shift to accommodate changes within or among academic programs.

Renewal Needs – Technological advances can render both facilities and equipment obsolete, sometimes at rates far exceeding their physically useful lives. The application of computing to every discipline within a university and the dizzying pace at which computing power, speed and applications continue to evolve is the most obvious example of such a change.

APPENDIX II

INNOVATION AND WORKFORCE DEVELOPMENT



- **Math/Statistics/Data Science Collaborative Facility
(Altgeld/Illini Hall renovation)**
- **School of Art & Design Thinking and Learning Addition**
- **Animal Nutrition Feed Processing Research Facility**
- **Advanced Engineering Facility**
- **Advanced Pharmaceutical and Innovation Institute**

INNOVATION AND WORKFORCE DEVELOPMENT

MATH/STATISTICS/DATA SCIENCE COLLABORATIVE FACILITY (ALTGELD/ILLINI HALL RENOVATION) – \$43,000,000 – URBANA



Requested Funds: State \$43M, Other \$47M
Altgeld Hall 79,720 G.S.F.
Illini Hall 49,450 G.S.F.

- **Complete Renovation of buildings**
- **Electrical/ HVAC upgrades**
- **Masonry /Roof /Window Repairs**

Academic Impact of Math/Statistics:

- **Majors: 1,741 Undergrad; 400 Grad**
- **53% increase in instructional units over last decade**
- **83% of graduates have taken a class**
- **Delivers 7.9% of all credit hours**
- **Generates over \$4M in research**

The Department of Mathematics and Statistics touches nearly every student and most researchers across campus. The faculty and students in these departments are making leading edge advances in the fields of mathematics, actuarial science, statistics and biostatistics, data science, risk analysis, engineering, computational science, and the biological, medical, and social sciences. The department is housed in two older facilities that were constructed well over 100 years ago.

Altgeld Hall built in 1897 is the second oldest building on campus and is one of the architectural jewels on campus, listed on the National Register of Historic Places. Originally known as Library Hall, the building has seen

several additions over the years. Illini Hall built in 1907, was originally built as the University YMCA, and recommissioned as the Student Union in 1919.

The goal of this project is to restore Altgeld and Illini Halls to a level consistent with a world class academic enterprise for the Departments of Mathematics and Statistics. These buildings have become outdated and can no longer support the surge in student demands nor the requirements of 21st century teaching and learning. Restoration of these two halls will provide students and faculty with dynamic, collaborative spaces that encourage exploration and innovation in teaching, learning and research. Modernized, forward thinking environments will enable interdisciplinary interactions between students and faculty, providing shared space where new ideas can take root and grow into transformative solutions and applications. The renovation will restore and preserve historic spaces in Altgeld Hall and make both Illini and Altgeld fully accessible. Some 6,800 square feet of classroom space will be added along with the modernization of 14,600 existing square feet of classroom space. 5,300 square feet of collaboration space will be added for instruction and research. The project will reduce an estimated \$18M of deferred maintenance in these buildings while at the same time reducing utility costs for each facility.

INNOVATION AND WORKFORCE DEVELOPMENT

SCHOOL OF ART & DESIGN THINKING AND LEARNING ADDITION - \$64,860,000 – URBANA



Requested Funds: State \$64.8M, Other \$20.3M
Consolidation of multiple facilities

Academic Impact of Art and Design:

- **Majors: 520 Undergrad; 70 Grad**
- **17,400 instructional units per year**
- **College of Fine and Applied Arts generates over \$1.1M in research**

Built in the late 1950s, the Art and Design Building has undergone only minor repairs and upgrades since it was constructed. The current condition of the building reflects the wear and tear of 60 plus years of continuous use as an administrative, teaching, and research facility. It suffers from general fatigue and deterioration of comfort and visual quality. It is worth stressing, however, that the basic building structure appears to be sound, and its functional qualities, while needing upgrading, serve its purposes well. This project will update worn and outdated facilities and improve accessibility.

The School of Art + Design occupies 141,000 square feet of space across 13 buildings. Of this space, 57,000 square feet are contained in the current Art and Design Building. Seven prefabricated industrial type metal buildings known as the South Studio contain 30,000 square feet in an area adjacent to the Research Park. Flagg and Noble Halls combined have 42,000 square feet of space assigned to Art + Design. The School is the sole occupant/user of the seven studio buildings and of Flagg Hall.

Currently, students, faculty, and staff are in 13 separate and scattered locations. Many of the occupied spaces were considered temporary and therefore are not adequate for the needs or of the size to best support the programs. Many of the spaces do not allow for growth, meet accessibility codes, or have adequate transportation services for student needs. For the first time in the history of the School, 12 discreet programs will be brought together in one building creating a strong identity for the visual arts on campus. This action will serve to promote the arts as a viable academic partner for collaborative research and intellectual interaction.

Undergraduate and Graduate students will be able to interact easily, build community, exchange ideas among programs, and more easily connect with the faculty and the rest of campus. The alterations and additions to the existing building will provide a unified location that will encourage interaction, improve efficiency of operation, and support more cross-discipline cooperation and collaborative courses. Consolidation of space within the existing Art and Design Building plus an addition to the building would allow the School to totally vacate space in nine buildings, including Flagg Hall, which would help clear the way for the Inkenberry Commons expansion.

INNOVATION AND WORKFORCE DEVELOPMENT

Animal Nutrition Feed Processing Research Facility – \$14,000,000 – Urbana



Requested Funds: State \$14M
New Construction 68,500 GSF
Replaces Feed Storage Plant and Scale House
Produces rations for swine, dairy, beef, poultry, and equine

Academic Impact of Animal Sciences:

- **Majors: 495 Undergrad; 90 Grad**
- **44% increase in instructional units over last decade**
- **Generates \$2.5M in research**
- **College of ACES delivers 6.6% of all credit hours**

The Department of Animal Sciences is known throughout the world as a global leader in teaching and research in animal nutrition, animal sciences, and feed ingredient utilization. Integral to the success of those units is the feed processing capabilities that are used by over 40 faculty and hundreds of students from various departments and colleges. Animal feed is created by technicians to provide animals with the necessary balanced nutrients for proper growth, development, and maintenance. The existing facility was built in 1927. The current mill produces over 4,000 tons of feed per year mostly in small batches of up to 150 formulations a week for swine, dairy, beef, poultry and equine units.

A modern Feed Mill is needed to accelerate advancements in technology and scientific discovery in feed ingredient utilization, new

processing technologies, and improved efficiency of food production. The comprehensive operations of the Feed Mill Complex include: production and storage of grain and forages; storage of specialized diet ingredients; precise diet formulation; milling; ingredient processing; pre-mixing, mixing, pelleting, extrusion, expansion, crumbling, bagging and delivery of research animal diets; fuel, chemical, and seed storage; operations for comprehensive nutrient management; and equipment maintenance in support of the University's research and education animal production systems.

The Animal Sciences Feed Mill Complex operates functionally interdependent tasks mentioned above that require the following integrated components and specialized capacities including; Feed Mill, Feed Ingredient Warehouse, Pilot Feed Mill, Farm Services Office, Shop, Equipment, Seed and Chemical Storage Units which will be housed in this Feed Mill Replacement Building. Once completed the complex will be used to develop and test new technologies that can be applied to the manufacture of animal and human foods and will support research on safe food production animal nutrition and sustainable livestock practices.

INNOVATION AND WORKFORCE DEVELOPMENT

ADVANCED ENGINEERING FACILITY – \$86,000,000 – CHICAGO



Requested Funds: State \$86.0M
New Construction 165,000 G.S.F.

Academic Impact of Engineering:

- **Majors: 3,601 Undergrad; 1,539 grad**
- **88% increase in enrollment over last decade**
- **Over 100% increase in degrees over last decade**
- **50% increase of instructional units over last decade**
- **College generates almost \$19M in research**

The College of Engineering plans to construct a new 165,000 gross square foot building on the footprint of Lot 10, located north of Taylor Street adjacent to the Science and Engineering Laboratory West (SELW) and the Engineering Research Facility (ERF). The College of Engineering has experienced recent enrollment growth and is expected to grow by an additional 628 engineering students by 2021. This facility will accommodate this growth and the subsequent need for research space.

This building will help the college attract future students and faculty and will provide modern research and educational facilities to students and researchers. This six-story building will include a basement, three large auditoriums, twenty-six

classrooms/seminar rooms, twenty dry research laboratories and forty-two faculty offices. It is envisioned that this building will serve as an experiential learning and design hub, providing space for holistic and interactive learning and interdisciplinary collaboration space.

An open plan for the first floor will allow for informal, collaborative space and will also feature a café, exhibition space and a digital video wall. It's anticipated that the building façade will be constructed with a mixture of concrete and transparent, energy efficient glazing systems. The interior will feature exposed structure and mechanical systems, wood shutters and copper cladding design. The building will also build upon the Chancellor's Climate Commitments by featuring geothermal heating/cooling systems, daylighting and energy efficiency features, HVAC sensor controls, and a green roof.

INNOVATION AND WORKFORCE DEVELOPMENT

ADVANCED PHARMACEUTICAL INNOVATION INSTITUTE – \$150,000,000 – CHICAGO



Requested Funds: State \$150M

New Construction of 250,000 GSF

Academic Impact of Pharmacy:

- **875 Grad/Professional Students**
- **Over the last decade:**
 - **26% increase in instructional units**
 - **10% increase in enrollment**
 - **10% increase in degrees**
- **Generates \$11.5M in research**

The University of Illinois at Chicago is requesting \$150M in FY 2018 to construct a new 250,000 square foot building adjacent and connected to the 1954 College of Pharmacy building. The vision for the Advanced Pharmaceutical and Innovation Institute will be to create an interactive environment employing interdisciplinary and multidisciplinary teams to address fundamental biological and biomedical questions. The University of Illinois Chicago campus has internationally renowned faculty researchers who train the future workforce of the pharmacy industry and can collaborate with multiple research centers and several health science colleges both in the medical and pharmaceutical academic departments. This Institute will facilitate a new model for commercializing basic findings and innovative therapies with international leaders in the pharmaceutical and healthcare industry. The

facility will provide new opportunities for innovation in drug discovery, pharmaceutical product development, and personalized medicine; provide state-of-the-art space for contemporary biomedical research, which requires intense collaborations across different campus disciplines with investigators having unique and specialized skills; develop a transformative center of research excellence housed in cutting-edge core; drive growth as a major economic engine for the State of Illinois.

The University of Illinois Hospital & Health Sciences System (UI Health) continues to be a significant resource for healthcare innovation within the State of Illinois, which includes partnerships such as the Prior Authorization for State Medical Programs and the Medication Review Program. The Advanced Pharmaceutical and Innovation Institute will create new jobs and develop new healthcare products and discoveries that will create a significant economic impact for the State of Illinois. The construction of this building will allow the expansion of the University's top-ranked research programs. The College of Pharmacy is consistently ranked among the top five colleges nationally, and the College of Medicine is one of the nation's largest and most diverse medical schools.

APPENDIX III

LIBRARY RENOVATIONS – UNIVERSITY WIDE



LIBRARY RENOVATIONS

UNIVERSITY WIDE – \$167,250,000



Requested Funds: State \$167.25M
Urbana Champaign Main Library \$54.05M
Chicago Daley Library \$55M
Springfield Brookens Library \$58.2M
Statewide Participation from U of I

- **Account for over 20% of loans**
- **Provide over 40% of unique titles**
- **Over 30% of library record counts**

Urbana-Champaign: The High Density Storage Addition (HDS) will be the first step in a multi-phased project to reconstruct the Main and Undergraduate Libraries. This addition to be located on the west end of the existing 6th stack will be primarily a large climate controlled vault capable of storing 1.5M volumes in an 11,000 SF footprint. The total area of the HDS Addition with the associated mechanical room is approximately 23,000 SF. As part of this project, a new utility tunnel will be constructed to connect the existing Main Library Power Plant to the West Sixth Street steam tunnel and the new HDS Addition. Also part of this project will be the construction of a new Lecture Hall 66, a building addition to the southwest side of the Main Library.

Chicago: An addition to the Richard J. Daley Library will supplement student academic life through the inclusion of a new information commons, an auditorium, a large cafe, a winter garden and a temporary exhibit space. A central

atrium will allow natural light deep into the building and provide a visual connection to the upper floors. A new 200-seat auditorium will provide a public meeting venue to offer programs, lectures, performances, readings, and other events related to library and campus interests. To promote 24/7 campus life, a larger café with food prep areas and seating will be central to the ground floor. To create spaces that promote research, learning, and collaboration, the third floor will include a double height reading room, large and small group meeting spaces.

Springfield: This project will renovate the Brookens Library. This 200,000 square foot facility was constructed in 1975 as the first major permanent building. While the building has served the campus well, it is now in need of renovation. The building's deficits include severe overcrowding and lack of growth space for the collection, technology and services; a confusing physical layout; an inefficient window system that creates uncomfortable cold and hot spaces; poor lighting system; severe acoustic problems; worn and outdated finishes and furnishings; and inaccessible spaces. A large portion of deferred maintenance will be addressed with this remodel and allow the campus to reposition learning, teaching, research services supporting technologies and collections.

APPENDIX IV
LEGACY APPROPRIATIONS – CHICAGO



LEGACY APPROPRIATIONS

ADVANCED CHEMICAL TECHNOLOGY BUILDING – \$67,200,000 – CHICAGO



**Requested Funds: State \$67.2M,
Other \$44.2M
New Construction 144,600 GSF**

The Advanced Chemical Technology Building (ACTB) will be a 144,600 GSF state-of-the-art natural sciences research facility that will be physically connected to the south of the Science and Engineering South (SES) building. The facility will contain laboratory space for chemical scientists and other synergistic groups of researchers who will benefit from contiguous research space. It will provide space for labs, offices for Principal Investigators, and shared support spaces. The building design will facilitate collaboration between researchers and will provide space to advance technology transfer, education, and engagement. This will result in sharing of technology and development of novel, highly fundable research ideas that would not otherwise have emerged from isolated work groups. Chemistry is an integral part of all work in biotechnology and this building provides facilities essential for research at the leading edge of chemistry and biochemistry.

It is expected that researchers moving into the ACTB will generate significant additional research expenditures due to increased collaboration, generate new commercialized technology, annually generate 8 new invention disclosures, 4 new patent filings, and 4 new licenses and options, including new start-up

companies. In the bio-pharmaceutical field, each new job will generate another 5 jobs, so the future potential impact is immense.

Construction of the ACTB will allow some research activities occurring in obsolete facilities to move into the new building, freeing up space that can then be converted to critically needed teaching laboratory facilities. This teaching laboratory space is needed to support departmental growth, increased student enrollments and improved graduation rates through the elimination of course scheduling bottlenecks.

The project design and construction documents have been completed, but the project was placed on hold by the State prior to release of the construction bids in 2015. In order to meet the pressing space requirements for research and teaching laboratory activities of these expanding departments, it is vital that funding for this project moves forward. It is estimated that \$67.2M from the State and \$44.2M from the University would be needed as a result of previous cost-sharing agreements and cost escalation resulting from the project's delay. The investment provided by the state, campus, colleges, and departments will demonstrate the exceptional commitment of Illinois to play a major role in job creation and in research in chemistry, biochemistry, and biotechnology.