

Centers and Institutes

Annual Reporting
Fiscal Year 2020



Southern Illinois University Carbondale
Southern Illinois University Edwardsville



Submitted by the
Office of Academic Innovation, Planning & Partnerships
to the
Southern Illinois University Board of Trustees
April 2021



Southern Illinois University System
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INTRODUCTION

In keeping with University Guidelines, the following reports from centers and institutes at Southern Illinois University's three campuses for FY2020 are provided for the SIU Board of Trustees. It is the sixth annual report on centers and institutes that have been approved by the Illinois Board of Higher Education (IBHE) and/or established by Illinois state statute. These reports will permit better administrative oversight of valuable components of the university system, as reflected in Section 2.4 Academic Affairs: Center and Institutes (<http://siusystem.edu/about/section24.shtml>).

Each center or institute completed and submitted to the campus leadership its annual report using a template developed by the Vice President for Academic Innovation, Planning and Partnerships, in consultation with campus and medical school administration. This template was used by all centers/institutes to ensure that reporting was consistent across the system. The annual report includes information about financial and other resources (such as total funds expended during the previous fiscal year, revenues by funding source, and total positions by type of position); intellectual contributions (such as publications, presentations, books, compositions, art exhibits, patents, theses and dissertations); public service contributions (such as community projects and patient care); students trained and graduated; evidence of the center's/institute's support for the institution's mission, priorities, and strategic themes; support for the SIU Board of Trustees' strategic plans and/or statewide priorities and needs; external reputation of the center/institute (such as cited publications, invited presentations, media coverage); and evidence that the center's/institute's product or outcomes achieve stated objectives and that results from evaluations are being used to improve the center's/institute's effectiveness. This annual reporting will clarify the center's/institute's organizational effectiveness.

Initially this report was to cover only those centers and institutes that were IBHE-approved and/or Illinois State Statute-established. Because of their importance, other center-like units were asked to report, such as SIUC's Paul Simon Public Policy Institute and SIUE's Illinois Metro East Small Business Development Center and University Museum. Other centers, institutes, and units are included in this report, while still others may be considered in the future. Each campus will be assessing the criteria for this report as we move forward.

Gireesh Gupchup
Vice President for Academic Innovation, Planning and Partnerships

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only)

1.	Reporting Institution	<u>Southern Illinois University Carbondale</u>
2.	Center/Institute	<u>Advanced Coal and Energy Research Center</u>
3.	Date	<u>March 18, 2021</u>
4.	Director	<u>Ken B. Anderson See note Infra</u>
4.1	Telephone	<u>618-536-5521</u>
4.2	E-mail	<u>kanderson@siu.edu</u>
5.	Year Established	<u>1974</u>
6.	Illinois State Statute (if pertinent)	<u>N/A</u>
7.	Reporting Unit	<u>Office of Vice Chancellor for Research</u>
8.	Type	Activity (check all that apply)
	Instructional	<input type="checkbox"/>
	Research	<input checked="" type="checkbox"/>
	Public Service	<input checked="" type="checkbox"/>

Notes: Dr. Ken B. Anderson became the newly appointed Director of ACERC starting August 2020, after this reporting period.

9. Overview

9.1 Description

ACERC is the hub for SIU advanced energy research, collaboration, education and facilities. The center currently focuses on the following activities:

- 1) RESEARCH: maximizing proposal development and project implementation support to faculty and students across campus.
- 2) COLLABORATION: serving as a resource for the campus community and a bridge to government, industry and other academic and research institutions, especially Illinois based organizations.
- 3) FACILITIES: Support and maintain specialized facilities; and
- 4) OUTREACH: facilitating the improvement of the public's understanding of energy, including special focus on regional energy and environmental topics.

9.2 Mission

- Assist faculty, students and others in the campus research community in engaging in advanced energy-related research and service opportunities, and
- Advocate and initiate activities that advance the university as a leader in interdisciplinary advanced energy research, education and service toward the ultimate benefit of society and the environment.

9.3 Objectives

- 1) Expand advanced energy education and research across campus.
- 2) Facilitate the development of an advanced energy workforce, with special focus on the changing energy production and utilization patterns of the State of Illinois, especially southern Illinois.
- 3) Support research to increase the return on investments in advanced energy investment.
- 4) Establish Illinois Energy Development Park as the regional test bed for advanced coal and energy technologies.

10. Advisory Board

10.1 Advisory Board - Membership

John S. Mead, Director Emeritus
Norm Peterson, Director, Government Relations, Argonne National Laboratory
Thomas A. Sarkus, Division Director, Major Projects Division, U.S. Department of Energy
Don Stevenson, Gas Technology Institute, Managing Director, Energy Supply & Conversion
Kevin O'Brien, Director, Illinois Sustainable Technology Center, Prairie Research Institute

10.2 Number of Meetings (In This Year) 0 (No Advisory Board meetings were held for the current reporting period due to the passing of the previous director.)

11. Annual Performance

11.1 Performance Measures*

Measure	Target for Year	Results in Year
1. Faculty grants awarded	Up to 5	2
2. Graduate Assistant positions	1-2	1
3. Scholarships awarded	Up to 10	1
4. Student grants awarded	Up to 5	1
5. Community outreach events	2	1
6. Visiting researchers	0	0
7. Publications	0	0

*Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

11.2 Major Accomplishments (In This Year)

- Supported 13 GA positions and 2 undergraduate Student Workers
- Awarded 1 Energy Boost Scholar
- Awarded 1 new scholarship for the Undergraduate Energy Engineering minor, and supported continuing scholarships awarded in previous years (9)
- Awarded 2 Faculty Seed Grants (approximately \$50,000 each)

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

ACERC established and maintains programs as per the Energy Boost grant proposal, and faculty, staff, students and community members benefit from these programs as is evidenced by the scholarships, grants, and graduate assistantships awarded, as well as the hundreds of community members served.

11.4 Evidence of Support for Center/Institute Objectives

- ACERC supported students with scholarships and grants.
- ACERC boosted faculty research towards large grants e.g. NSF via seed grants.
- The Illinois Energy Development Park Final Utilization Report was submitted and approved by the US Department of Education in October 2019. The final report released the property from a thirty (30) year period of restrictions set forth in the July 28, 1989 deed. The property was released to SIUC.
- The IEDP experienced a shift in operations after the main water supply was shut off by the supplier in January of 2020; ACERC continued to support and administer the operations of the facility.

- Like all other campus operations, ACERC was impacted by the Covid-19 pandemic beginning in March 2020. Planning for a multi-institutional symposium was suspended due to the Covid shutdown.

11.5 Evidence of Organizational Effectiveness

- Over the course of the year, ACERC maintained existing programs and established new scholarship, grant and campus outreach programs to meet newly identified needs. ACERC supported undergraduates, graduate assistants and helped facilitate new faculty-based energy research programs.

12. Institutional Assessment

12.1	Date of Last Review	<u>March 2017</u>
12.2	Decision at Last Review	<input checked="" type="checkbox"/> Center/Institute in Good Standing <input type="checkbox"/> Center/Institute Flagged for Priority Review <input type="checkbox"/> Center/Institute Suspended
12.3	Explanation	<hr/>

RESOURCES: Advanced Coal and Energy Research Center

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016
Revenues:					
State Appropriations	104,998	225,315	274,541	335,441	343,173
Income Funds	170,083	184,059	148,698	152,439	126,525
Grants*	2,631,930	3,003,443	3,460,940	4,163,608	4,678,827
Total Revenues	2,907,011	3,412,817	3,884,179	4,651,488	5,148,525
Expenditures: <i>(Sources: Combined Grants and State Accounts)</i>					
Salaries: Staff/Faculty	158,004	405,427	410,301	457,578	524,627
Graduate Assistant Support	70,376	59,050	104,507	96,861	51,214
Student Worker Support <i>(Sources: State and FWS Matching)</i>	7,632	8,123	6,722	7,982	
Travel	35	218	3,839	5,770	15,030
Commodities	4,255	14,253	16,196	28,659	4,599
Equipment	0	388	275	961	1,117
Contractual Services	74,923	394,213	111,075	151,469	164,917
Student Research Awards and Scholarships	45,000	11,000	7,500	9,000	0
Awards and Grants— Property Damage Settlement	(15,937)				
Telecommunication Services	8,570	8,255	17,006	13,447	14,266
Fringe Benefits	43,658	107,413	78,638	96,369	112,054
Facilities and Administrative	24,975	71,870	45,973	56,366	49,966
Total Expenditures	421,490	1,080,241	802,027	924,461	947,791
Revenue Minus Expenditures	2,485,521	2,332,576	3,082,152	3,727,027	4,210,734

Staffing <i>(Full Time Equivalent)</i>	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	0.0	.083	.083	2	2
Staff	3.3	6.300	7.800	7	12
Total Staffing	3.3	6.383	7.883	9	14

*Note: The manner in which the university reports this line shows the annual balance of grant funds awarded to ACERC in FY2015 for expenditure over a multi-year period.

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	Southern Illinois University School of Medicine
2.	Center/Institute	SIU Center for Alzheimer’s Disease and Related Disorders (CADRD), including the Parkinson Disease Center (PDC)
3.	Date	01/25/2021
4.	Director	Erin R. Hascup, PhD, Director
	4.1 Telephone	217-545-6988
	4.2 E-mail	ehascup@siumed.edu
5.	Year Established	Academic Year 1987
6.	Illinois State Statute (if pertinent)	Public Act 90-0404
7.	Reporting Unit	Southern Illinois University School of Medicine
8.	Type	Activity (check all that apply)
	Instructional	X
	Research	X
	Public Service	X

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

The SIU Center for Alzheimer's Disease and Related Disorders (CADRD) was established as a Regional Alzheimer's Disease Assistance Center by the State of Illinois, pursuant to Public Act 90-0404. CADRD is dedicated to assisting patients and families who may be affected by Alzheimer's disease and related conditions through patient care, education, research, and service to the community. The Parkinson Disease Center (PDC) was established by the Illinois state government to address the needs of Parkinson disease patients in the region. CADRD and the PDC are integrated into the SIU Neuroscience Institute (NSI) and are incorporated into this report.

9.2 Mission

To integrate patient care, education, and research to better understand the biological aspects of aging, cognition, and neurodegenerative disorders allowing us to design innovative personalized care that addresses both the underlying symptoms and the disease leading to improved patient, family, and community outcomes.

9.3 Objectives

As defined by the State of Illinois Public Act 90-0404, which established the SIU School of Medicine program as a Regional Alzheimer's Disease Assistance Center, the center is expected to provide the following:

1. Comprehensive diagnosis and treatment facilities and services which have (i) professional medical staff specially-trained in geriatric medicine, neurology, psychiatry and pharmacology, and the detection, diagnosis and treatment of Alzheimer's disease and related disorders, (ii) sufficient support staff who are trained as caregivers to victims of Alzheimer's disease and related disorders, (iii) appropriate and adequate equipment necessary for diagnosis and treatment, (iv) transportation services necessary for outreach to the service area defined by the Illinois Department of Public Health and for assuring access of patients to available services, (v) and such other support services, staff and equipment as may be required;
2. Consultation and referral services for victims and their families to ensure informed consent to treatment and to assist them in obtaining necessary assistance and support services through primary Alzheimer's providers and various private and public agencies that may otherwise be available to provide services under this Act;
3. Research programs and facilities to assist faculty and students in discovering the cause of and the diagnosis, cure and treatment for Alzheimer's disease and related disorders;
4. Training, consultation and continuing education for caregivers, including families of those who are affected by Alzheimer's disease and related disorders;
5. Centralized data collection, processing and storage that will serve as a clearinghouse of information to assist victims and families and Alzheimer's Disease Assistance Center Resources, and to facilitate research; and
6. Programs of scientific and medical research in relation to Alzheimer's disease and related disorders that are designed and conducted in a manner that may enable such centers to qualify for Federal financial participation in the cost of such programs.

10. Advisory Board

10.1 Advisory Board - Membership

SIU Primary Provider Advisory Board: The SIU Primary Provider Advisory Board is CADRD's advisory board. This board consists of the coordinators of each of the Alzheimer Center's Primary Provider sites approved by the Illinois Department of Public Health.

SIU Primary Provider Advisory Board members in FY2020 were:

- Courtney McFarlin, Memory Care Center of St. Anthony's Hospital, Alton;
- Dawn Kleber, St. Joseph's Hospital, Breese;
- Susan Grace, SIU Family Medicine Center, Carbondale;
- Kathryn Rhoads, Circle of Friends Adult Day Center, Champaign;
- Jenny Anderson, Prairieview Lutheran Home, Danforth;
- Jill Krum, St. Mary's Hospital, Decatur;
- Debbie Artis, Clay County Hospital – Senior Renewal, Flora;
- Lynn Sellers, Montgomery County Health Department, Hillsboro;
- Becky Kirk, Jersey Community Hospital, Jerseyville;
- Michelle Brown, Pinecrest Community, Mount Morris;
- Jodi Carpenter, St. Mary's Good Samaritan Inc., Mount Vernon/Centralia;
- Sandy Burgener, Community Resource and Counseling Center, Paxton;
- Amy Eppel, Evenglow Inn, Pontiac;
- Ann Jirmasek, SIU School of Medicine Memory and Aging Clinic, Springfield.

The advisory board is currently being restructured with the hiring of the new director.

10.2 Number of Meetings (In This Year) 1

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. Evaluations of new patients (Springfield site)	N/A	276
2. Evaluations of new patients (network)	N/A	459
3. Follow-up patient visits (Springfield site)	N/A	2,595
4. Follow-up patient visits (network)	N/A	1,241
5. Educational programs (Springfield providers) – Number of Programs	N/A	142
6. Educational programs (Springfield providers) - Attendance	N/A	3481
7. Educational programs (Primary Provider sites) – Number of Programs	N/A	49
8. Educational programs (Primary Provider sites) - Attendance	N/A	1966
9. Clinical Trial Studies – Number of studies per IRB	N/A	10
10. Research – Number of publications & presentations	N/A	18
11. Number of brain autopsies	N/A	2

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

11.2 Major Accomplishments (In This Year)

<p>Major accomplishments of the SIU Center for Alzheimer's Disease and Related Disorders (CADRD) in FY2020 include:</p> <ol style="list-style-type: none"> 1. After an extensive search a CADRD Director was hired, Erin R. Hascup, PhD. She began January 1, 2020. The previous Interim Director, Tom Ala, MD now serves as the Medical Director of CADRD. 2. Evaluation of new patients and continued follow-up with existing patients through the CADRD Springfield site. The productivity of the statewide Primary Provider network sites was reduced due to the COVID-19 pandemic. 3. Continuation of community education and outreach programs such as the <i>Art Express!</i> and Music and Memory programs. Thanks to a grant from the Illinois Department on Aging from the Administration for Community Living, CADRD was able to expand community education and outreach programs in Springfield and through ten of the Primary Provider sites by offering six evidence-based programs for persons with dementia who are still living in the community setting and their family caregivers. The local educational programs of CADRD and the statewide Primary Provider network sites was continued. 4. Participation as a residency rotation site for the Neurology, Internal Medicine, Psychiatry, and Family and Community Medicine departments in the center's Memory Disorder Clinic. 5. Participation in ten clinical studies into the diagnosis and treatment of Alzheimer's disease, including 14 investigator-initiated studies and eight multi-center clinical trials. 6. Submission of several research papers published by the CADRD's basic science faculty. 7. Participation in the development of the new SIU Neuroscience Institute, which includes CADRD. 8. Faculty and staff contributed to 13 peer-reviewed publications and 5 national and international publications. 9. Continued external (NIH) research funding for bench and translational neuroscience labs. <p>CADRD is required to report annually on its accomplishments to the Illinois Department of Public Health's Alzheimer's Disease Advisory Committee. This committee provides oversight to the</p>
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Regional Alzheimer's Centers under PA 90-0404. CADRD submitted its report to IDPH for FY2020. The Parkinson Disease Center (PDC) has continued to provide clinical care to patients and to sponsor an annual community education program. The PDC has been revitalized with funding being restored and with the advent of a fellowship trained movement disorder neurologist who joined our practice in FY 2020.

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

The Center for Alzheimer's Disease and Related Disorders advances several priorities of the State of Illinois, Southern Illinois University, and SIU School of Medicine. As noted, CADRD was established by Public Act 90-0404 as a state-designed Regional Alzheimer's Disease Assistance Center. CADRD has been successful in this role, as evidenced by its continued designation by the State of Illinois as a regional center. The center also supports the Illinois Public Agenda's goal for use of university educational, research, and innovation assets to advance the state's and region's economy. This is evident in CADRD's positive impact on patient care and research.

CARDR also advances goals of the university and the medical school, such as those associated with community outreach, public/private partnerships, and research. The center has been invited to participate in many local, regional, and state programs sponsored by the Alzheimer's Association, the Alzheimer's Disease Advisory Committee for the Illinois Department of Public Health, and the Illinois Cognitive Resources Network. The center has also collaborated with researchers in other departments both in Springfield and in Carbondale, as well as those in the other two state-designated Regional Alzheimer's Disease Assistance Centers in Chicago, to assist the Illinois Department on Aging in obtaining a Community Living grant. The Director has also been a member of Strategic Planning Committees both at the SIU School of Medicine and SIU System levels. These activities directly support the SIU Board of Trustees' priorities for community partnerships, SIU Carbondale's priority for research and innovation, and SIU School of Medicine's goals for research and professional engagement.

CARDR physicians and other health professional staff provide essential patient care for Alzheimer's patients in the center's Springfield clinics as well as extend their expertise as consulting physicians/professionals throughout the statewide SIU Primary Provider network. As a required component of their educational programs, SIU Neurology, Internal Medicine, Psychiatry, and Family and Community Medicine residents all have required rotations through the center's Memory Disorder Clinic to learn the clinical aspects of Alzheimer's disease, as do SIU medical students and Physician Assistant program students. These activities support medical school and university goals for patient care and workforce development.

CARDR researchers lead state and federally funded bench and translational original research with the overall goal of determining pharmacological and non-pharmacological intervention strategies to improve patient care. This research is disseminated through attendance and participation at local, national, and international conferences, invited speaker opportunities, and published manuscripts. As an academic institution, our research faculty also provide educational opportunities and training for medical students and residents, and undergraduate/graduate students. Together this supports the Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning.

CARDR also initiated and participates as content experts for Extension for Community Healthcare Outcomes (ECHO) project designed to improve access and care to older patients and especially those with memory issues. One-hour sessions occur monthly following the ECHO model - a case-based learning community designed to improve patient access to specialty care by moving the knowledge closer to the patient (community providers/healthcare professionals working with those cognitively impaired) rather than moving the patient closer to the specialists. We use this "All Teach, All Learn" model consisting of a brief (15-minute) didactic provided by

SIU School of Medicine Faculty followed by a case presentation with opportunities for all participants to ask questions and provide consultation/advice. The session ends with a summary of recommendations and potential next steps. Each participating site has the opportunity to present a case which the entire ECHO community “staffs”. Some of the community members are from our Memory and Aging Network, which currently has 26 sites. Currently, eight of those sites participate in ECHO on a regular basis. Together this supports the Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning.

11.4 Evidence of Support for Center/Institute Objectives

The Center for Alzheimer’s Disease and Related Disorders directly advanced the center’s objectives during FY2020. As noted in 11.1 above, patient care, consultation, and referral services were provided in over 4,800 patient visits in CADRD’s Springfield site and 1700 additional patient visits in the SIU Primary Provider network sites. In addition, a major function of the center has been its development and maintenance of its state-mandated Primary Provider Program, which comprised 32 sites in FY2020. These activities support the patient care objectives (Objectives 1 and 2) above. Basic, clinical, and increasingly population health research projects were advanced in FY2020, and efforts to increase them continued in support of the research objectives (Objectives 3 and 6). There were 191 educational programs for caregivers and health care providers with attendance of 5447 in FY2020, in support of CADRD’s community educational objective (Objective 4). The center has also developed and maintains three databases of patient data which are used to facilitate research. This supports the centralized data collection objective (Objective 5). Collectively, these activities provide strong evidence that the Center for Alzheimer’s Disease and Related Disorders supported its center objectives in FY2020.

11.5 Evidence of Organizational Effectiveness

The strongest evidence of organizational effectiveness is that already presented in the preceding sections. The center continues to be recognized as a leader in the clinical, educational, and research aspects of Alzheimer’s disease in Illinois and is growing its reputation nationally and internationally. CADRD faculty and staff members actively participate in regional, state, national, and international conferences and symposia to present findings from their research, clinical and outreach programs. As discussed above, CADRD is meeting its organizational objectives. With the appointment of a new Director, CADRD is focused on continuing its excellence in the areas of Clinical Health, Analytical Neuroscience, and Community Engagement while expanding its recognition and reputation to the national and international stage.

12. Institutional Assessment

12.1	Date of Last Review	<u>2018-2019</u>	
12.2	Decision at Last Review	<u> X </u>	Center/Institute in Good Standing Center/Institute Flagged for Priority Review Center/Institute Suspended
12.3	Explanation	<u> N/A </u>	

RESOURCES: Center for Alzheimer's Disease and Related Disorders

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016	FY2015	FY2014
Revenues							
State Appropriations	\$1,644,500	\$1,391,500	\$0	\$0	\$0	\$0	\$0
Income Fund			0	0	0	0	0
Grants and Contracts	\$2,360,744	\$1,950,135	1,032,995	622,470	247,615	241,521	211,322
State Support via Hospital Contracts ¹			0	0	0	122,073	1,464,870
Transfers from SOM ²	\$433		146,058	61,055	331,356	1,177,255	88,008
Other Revenues	\$38,072	\$31,682	43,454	25,424	37,531	32,910	39,311
Total Revenues	\$4,043,749	\$3,373,317	\$1,222,507	\$708,949	\$616,502	\$1,573,759	\$1,803,511
Expenditures [*]							
Salaries	\$1,103,654	\$874,520	\$246,217	\$222,029	\$297,124	\$1,104,046	\$1,106,582
Fringe Benefits	\$212,681	\$166,986	58,900	36,325	14,090	8,854	19,583
Equipment	\$239,477	\$109,812	0	5,933	0	24,095	28,248
Commodities	\$270,954	\$187,612	49,569	6,325	27,178	46,973	59,145
Contractual Services ³	\$600,093	\$755,859	587,611	158,599	154,717	270,579	313,831
Other Expenses	\$675,066	\$472,389	444,049	62,544	23,128	119,212	276,122
Total Expenditures	\$3,101,925	\$2,567,178	\$1,386,346	491,755	\$516,237	\$1,573,759	\$1,803,511
Revenue Minus Expenditures	\$941,824	\$806,139	-\$163,839	\$217,194	\$100,265	\$0	\$0

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

1. State Support via Hospital Contracts refers to funds received from the State of Illinois for support of the Center for Alzheimer's Disease and Related Disorders. Changes to the state's Medicaid hospital formula reduced that funding for FY2014 and effectively eliminated it in subsequent years.
2. Transfers from SOM includes fund transfers from the SIU School of Medicine's reserve or general funds to support the CADRD.
3. Contractual Services are primarily funds to support the Memory and Aging Provider Network, which includes 33 separate sites supporting a 93-county area. Supports information referrals for patients diagnosed with Alzheimer's disease at one of the network sites. Data from these patient encounters are subsequently included in the CADRD's data registry for education, clinical care, and research purposes.

Staffing (Full Time Equivalent)¹	FY2020	FY2019	FY2018	FY2017	FY2016	FY2015	FY2014
Faculty	3.29	4.29	1.00	1.00	1.00	3.64	4.63
Staff	8.00	10.67	6.56	6.56	6.56	17.52	18.68
Total Staffing	11.29	14.96	7.56	7.56	7.56	21.16	23.31

1. Staffing (FTE) includes FTEs of those faculty and staff receiving direct salary support from the CADRD.

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	<u>SIU Carbondale</u>
2.	Center/Institute	<u>Center for Archaeological Investigations</u>
3.	Date	<u>3/11/2020</u>
4.	Director	<u>Dr. Mark Wagner</u>
4.1	Telephone	<u>618-453-5055</u>
4.2	E-mail	<u>mjwagner@siu.edu</u>
5.	Year Established	<u>1978</u>
6.	Illinois State Statute (if pertinent)	<u>N/A)</u>
7.	Reporting Unit	<u>College of Liberal Arts</u>
8.	Type	Activity (check all that apply)
	Instructional	<input checked="" type="checkbox"/>
	Research	<input checked="" type="checkbox"/>
	Public Service	<input checked="" type="checkbox"/>

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

The Center for Archaeological Investigations (CAI) is a research unit founded in 1978 within the College of Liberal Arts. The CAI is historically linked to the SIUC Department of Anthropology in a number of ways but has always been administratively separate. The academic mission of the CAI is bolstered by our close ties to the Department of Anthropology where the CAI Director is a faculty member teaching courses in cultural resource management (CRM) and applied archaeology. CAI archaeological staff, two of whom are state supported and three who are funded through external grants, are engaged in external grant acquisition, student education, curation of archaeological collections, and field and laboratory research for state, federal, and private agencies.

9.2 Mission

The CAI has five missions as identified in our last (2015) self-study report. These are: (1) Student education. The CAI operates a large external grant-funded archaeological research program that enables us to provide experiential learning and employment opportunities for SIUC students. As part of this mission, we seek funds from grant-making agencies that enable us to provide financial support for students in applied positions as GAs, extra help, and other positions conducting field and laboratory archaeological research. (2) Curation. The CAI maintains a world-class curation facility where we curate archaeological collections for government agencies and Native American groups as well as provide SIUC students with training in archeological curation. We currently curate approximately 9,100 standard letter-size archival storage boxes of artifacts and non-cultural materials and more than 850 linear ft. of associated documentation, primarily from archaeological sites located in the Midwestern and Southwestern United States and some from Micronesia. These collection, including human remains, are curated in compliance with federal regulations 36 CFR Part 79 (Curation of Federally-Owned and Administered Archaeological Collections) and the Native American Graves Protection and Repatriation Act (NAGPRA); (3-4) to conduct archaeological and other research within an applied or cultural resource management studies (CRM) framework and publish the results of such research in peer reviewed forums. The CAI has been very successful in obtaining external grants from federal, state, and other agencies, receiving over 3 million dollars in external grants between 2007-2019; (5) Public outreach. To better serve the local community, CAI staff are actively involved in educational outreach throughout the region in the form of public talks, serving on local and national historic preservation boards, and leading public tours of archaeological sites.

9.3 Objectives

The current (2019-2020) primary objective of the CAI is continued expansion of our external grant program to provide additional financial and educational support for undergraduate and graduate students form of applied or hands-on training to help prepare students for careers as professional archaeologists with private, state, and federal agencies after graduation. The acquisition of externally funded grants to provide experiential training opportunities and financial support for students is especially critical in an era of decreasing state support for higher education. In 2020 we expanded our external grant program by adding the Daniel Boone National Forest in Kentucky as one of our partners. This year we also received a prestigious National Battlefield Preservation grant with the National Park Service which will involve a remote sensing (ground penetrating radar and gradiometric) survey of a Civil War fortification (Fort Henry) in Kentucky that will raise the national profile of both the CAI and SIUC.

10. Advisory Board

10.1 Advisory Board - Membership

Our advisory board is lapsed due to retirements. We are currently in the process of reconstituting the board.

10.2 Number of Meetings (In This Year) _____

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. External grants	5	9
2. Intellectual & Professional Contributions	1	2
3. UG student support	1	3
4. Graduate student support	2	5
5. External grants	5	5

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

11.2 Major Accomplishments (In This Year)

CAI accomplishments for 2019-2020 included acquiring over \$450,000 in new external grants. The acquisition of such grants allows us to hire undergraduate and graduate students as UGAs, GAs, extra help, and other positions that provide them with experiential learning opportunities beyond

what they receive in the classroom. CAI staff also typically present research papers at state, regional, and national meetings. However, the advent of the coronavirus brought such activity to a virtual halt in 2019-2020 due to the suspension of many meetings as well as restrictions on travel. The CAI curation facility staff also actively were involved in (1) rehabilitating and repatriating archaeological materials to the Hopi Tribe and Navajo Nation as part of a multi-year return of such materials to them; (2) searching old university collections that the CAI inherited from the University Museum or retired faculty members for human skeletal remains as required under the Native American Graves Protection and Repatriation Act.

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

The CAI provides support for goals regarding student success outline in the SIU strategic vision plan. Specifically, the CAI provides students with “the opportunity to engage in research, creative activity, and service learning’ through our external grant program that helps prepare them for careers after graduation. The CAI also “encourages mentoring at every level’ including ‘mentoring of undergraduate students by graduate students and mentoring of all students by faculty and staff. SIUC students work with CAI faculty and staff on a daily basis in a mentoring relationship as GAs, UGAs, work study, extra help, and interns to acquire skills in GIS, historical research, artifact analysis, and operation of ground penetrating radar (GPR) and gradiometric remote sensing units. The CAI Director also works directly with undergraduates in conducting research as part of the SIUC REACH program.

11.4 Evidence of Support for Center/Institute Objectives

Please see sections 11.1, 11.2, and attached spreadsheet that provide information on our success in meeting our center objectives, specifically the acquisition of external grants to support CAI staff as well as undergraduate and graduate students through student work, extra help, and UA and GA assistantships.

11.5 Evidence of Organizational Effectiveness

CAI organizational effectiveness is based on our demonstrated ability to acquire external research grants from a variety of private industry, state, and federal partners that we use to support 2.5 to 3.0 full-time grant funded staff as well as undergraduate and graduate students in a variety of research related positions that enhance their potential to obtain employment after graduation. CAI staff are currently working on external grant projects in four states (Illinois, Indiana, Kentucky, and Tennessee). This steady continuation of our external grant program provides a stable base for us to support our academic professional staff and students in an era of diminished state funding to support such positions.

12. Institutional Assessment

12.1 Date of Last Review 2015

12.2 Decision at Last Review Center/Institute in Good Standing
 Center/Institute Flagged for Priority Review
 Center/Institute Suspended

12.3 Explanation (briefly provide any explanation necessary of the institutional assessment or plans for pending program review)

RESOURCES: Center for Archaeological Investigations

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016
Revenues					
State Appropriations	163946	140233	124242	88414	172861
Starting Grant Balance	120651	397699	308026	151426	208332
New Grants & Contracts	450516	275602	423892	405610	262279
Annual Grant Total	571167	673301	721918	557036	471011
Total Revenues	735113	813534	856160	645450	643872
Expenditures*					
Grant Funded Salaries	207986	462316	161366	118258	166925
Grant Funded OTS	127986	90334	162853	130752	152660
State Funded Salaries	156222	132212	117660	82271	158932
State Funded OTS	7724	8021	6582	6143	13929
Total Expenditures	499918	692883	448461	337424	492446
Revenue Minus Expenditures	235119	122651	407699	308026	151336

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	1	1	1	1	1
Staff	3.5	4	4	4	2
Total Staffing	4.5	5	5	5	3

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	<u>Southern Illinois University Carbondale</u>
2.	Center/Institute	<u>Center for Fisheries, Aquaculture, & Aquatic Sciences (CFAAS)</u>
3.	Date	<u>March 18, 2021</u>
4.	Director	<u>Jim Garvey</u>
4.1	Telephone	<u>618-536-7761</u>
4.2	E-mail	<u>jgarvey@siu.edu</u>
5.	Year Established	<u>1950</u>
6.	Illinois State Statute (if pertinent)	<u>None (although SIUC Illinois Aquaculture Center recognized by state statute)</u>
7.	Reporting Unit	<u>Vice Chancellor for Research</u>
8.	Type	Activity (check all that apply)
	Instructional	<input checked="" type="checkbox"/>
	Research	<input checked="" type="checkbox"/>
	Public Service	<input checked="" type="checkbox"/>

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

SIUC's Center for Fisheries, Aquaculture, and Aquatic Sciences (CFAAS), one of the oldest research centers on the SIUC campus, was created as the Cooperative Fisheries Research Laboratory under SIUC President Delyte Morris 1950. The center is comprised of research facilities shared across colleges and departments including a 100-pond outdoor aquaculture facility near the Touch of Nature Environmental Center, an indoor tank facility and the new Aquatic Research Laboratory and Saluki Aquarium at McLafferty Annex as well as computer and instrument laboratories, and research vessels. Current CFAAS faculty have split appointments with teaching responsibilities in the College of Science and research appointments in the Vice Chancellor for Research's office. CFAAS is one of the top ten academic fisheries programs in the US and is the largest in the Midwest.

9.2 Mission

The mission of the Center for Fisheries, Aquaculture and Aquatic Sciences is to perform high quality research leading to peer reviewed research and train graduate and undergraduate students in fisheries and aquaculture in a research-intensive environment. We strive to maintain a critical mass of complementary faculty and shared resources that enhance the individual faculty member's ability to acquire external funding and contribute to teaching within and beyond the classroom. We also provide outreach to Illinois' commercial aquaculture industry.

9.3 Objectives

- Perform high quality research funded with external grants.
- Publish research in high quality peer-reviewed journals.
- Engage undergraduate students in career training and research.
- Train M.S. and Ph.D. graduate students.
- Provide research opportunities for undergraduate students.
- Teach graduate and undergraduate courses in fisheries, aquaculture, and related fields.
- Maintain sufficient shared resources (boats, fish tanks, instrumentation etc.) to foster collaboration among faculty within the Center and across departments and colleges to make individual faculty members more productive.
- Inform management and conservation of state, regional, national aquatic resources.
- Provide service to Illinois' aquaculture industry.
- Provide service to recreational and commercial fishing in the region.
- Bring international exposure to SIUC's ecological/environmental scholarship and leadership.

10. Advisory Board

10.1 Advisory Board - Membership

Advisory board development has been delayed due to Covid.

10.2 Number of Meetings (In This Year) 2 staff and faculty meetings

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. External Grant Funding	\$1,500,000	\$934,260
2. Peer-reviewed Publications	25	37
3. Graduate Students Enrolled	15	12
4. Graduate Students Finishing Degrees	5	3
5. Undergraduate Research Projects Supervised	10	10

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

11.2 Major Accomplishments (In This Year)

- Undergraduates Morgan Brown and Cassidy Brunson in Dr. Lydy’s lab received a REACH grant
- Dr. Whitlege was on the conference steering committee for the Midwest Fish and Wildlife Conference and completed his term as Past-President of IL AFS.
- Student Kennan Bruening received a travel award from IL AFS to attend the Midwest Fish and Wildlife Conference
- Student Shaley Valentine received a Skinner Award from AFS, a Larimore Student Research Award from IL AFS, and a scholarship from the IL Lake Management Association.
- Dr. Kwasek served on Sea Grant Great Lakes Aquaculture Collaborative Advisory Board, the North Central Regional Aquaculture Center Technical Board, and was part of the Illinois-Indiana Sea Grant Faculty Scholars Program (2019-2020)
- Student Tiffanie Atherton (Ph.D. student co-advised by Heist and Nielsen). Best Oral Presentation (2nd place). Illinois Chapter of the Wildlife Society Meeting. January 2020.
- Dr. Heist was a participant in 2020 SIUC STEM NOVA University – Counsellor for Boy Scouts Oceanography Merit Badge. February 2020.
- Dr. Heist advised REACH Student Daniel Fernandez (2020 – 2021).

- Dr. Heist was a member -- Pallid Sturgeon Stocking, Tagging, Propagation, Genetics and Broodstock Committee.
- Dr. Garvey was a member of the North Central Aquaculture Center Board of Directors
- Dr. Garvey co-organized the international-level AFS River Symposium Panel for 150th meeting of American Fisheries Society
- Dr. Garvey is a continuing member of the national-level Asian carp harvest control committee
- Dr. Garvey served as a panelist, Graduate Research Fellowship Program, NSF

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

Consistent with the SIU Strategic Improvement Plan's vision of SIUC as developing "broad and carefully monitored graduate and research programs of high quality," CFAAS has maintained very high research productivity through competitive external grants, peer-reviewed publications, and graduate training at the MS and Ph.D. level. CFAAS also embraces the Plan's vision of "public service... guided by its location in a region of small communities, farms, and mines" by reaching out to Illinois' aquaculture industry, which ranges from small farm-pond operations to larger commercial facilities, through brokerage and fish-health screening that make the industry more profitable.

11.4 Evidence of Support for Center/Institute Objectives

- (CFAAS is moving toward more self-sufficiency, including raising funds through fish production.
- Grant activity is increasing; total awards should increase in the coming fiscal year.
- CFAAS faculty taught above and beyond their contractual teaching loads.
- Continuing to reinvest grant and contracts into Center/University infrastructure, including purchase of new vehicles, upgrades to the Saluki Aquarium, and acquisition of new equipment.
- We provide service (brokerage of sales and testing for Viral Hemorrhagic Septicemia) for the Illinois aquaculture industry
- CFAAS uses research equipment and infrastructure to train undergraduate and graduate students as well as aid in classroom experiences. Most recently the Center has begun continuous monitoring of water quality in Campus Lake to better predict and mitigate potential harmful algal blooms.

11.5 Evidence of Organizational Effectiveness

Center Director Jim Garvey returned to the Center full time after serving as Interim Vice Chancellor for Research. Associate Director Ed Heist continues to perform research and teach the same course load as he did prior to becoming Associate Director. CFAAS recently combined its physical office, support staff, and student computing facility with the Cooperative Wildlife Research Laboratory to make both centers more cost-effective. The effectiveness with which CFAAS fulfills its objectives is detailed above. It is important to note that the Center contributes a significant portion of its FTEs in state appropriations to teaching while pursuing its research and service missions.

12. Institutional Assessment

12.1	Date of Last Review	<u>2018</u>
12.2	Decision at Last Review	<input checked="" type="checkbox"/> Center/Institute in Good Standing <input type="checkbox"/> Center/Institute Flagged for Priority Review <input type="checkbox"/> Center/Institute Suspended
12.3	Explanation	(briefly provide any explanation necessary of the institutional assessment or plans for pending program review) <hr/>

RESOURCES: Center for Fisheries, Aquaculture and Aquatic Sciences					
Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016
Revenues:					
State Appropriations	669,049.23	487,089.28	437,674.43	201,178.26	520,975.45
Local Accounts	205,305.70	165,937.34	138,199.12	164,379.44	204,577.75
Grants & Contracts	934,260.83	987,539.83	1,085,227.05	1,298,984.53	1,544,030.00
Total Revenues	1,808,615.76	1,640,566.45	1,661,100.60	1,664,542.23	2,269,583.20
Expenditures:					
Salaries	1,360,971.03	1,068,267.32	962,160.75	1,151,946.20	1,093,109.55
Wages	18,247.26	11,192.74	17,408.97	23,591.25	24,661.69
Travel	77,649.98	70,547.58	56,003.17	64,252.18	64,699.64
Equipment	52,856.26	116,245.82	25,478.16	108,586.96	(338.78)
Commodities	226,724.25	272,155.85	134,356.87	186,334.01	169,156.14
Contractual Services	469,447.55	89,874.53	115,818.89	118,060.76	360,254.05
Op/Auto	35,350.21	34,773.51	49,522.48	46,289.74	45,344.43
Telephone	5,913.79	5,796.77	3,971.86	4,504.75	5,209.48
Fringe Benefits	166,986.10	150,261.94	150,423.77	205,523.52	134,403.96
Indirect	176,833.95	149,407.27	103,679.71	105,835.37	117,788.66
Other	19,446.99	15,988.32	15,271.79	10,799.48	40,514.63
Total Expenditures	2,610,427.37	1,984,511.65	1,634,096.42	2,025,724.22	2,054,803.45
Revenue Minus Expenditures	(801,811.61)	(343,945.20)	27,004.18	(361,181.99)	214,779.75
* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.					

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	5	4	4	2.25	3.6
Staff	37	45.1	40.2	28.7	30.8
Students	4	4	2.6	5	10
Graduate Assistants	10.5	8	8.8	10.5	11.8
Total Staffing	56.5	61.1	55.6	46.45	56.2

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	Southern Illinois University School of Medicine
2.	Center/Institute	SIU Center for Rural Health and Social Service Development
3.	Date	12/11/2020
4.	Director	Jeffrey Franklin
	4.1 Telephone	618-453-1251
	4.2 E-mail	jfranklin@siumed.edu
5.	Year Established	Academic Year 1991
6.	Illinois State Statute (if pertinent)	N/A
7.	Reporting Unit	Southern Illinois University School of Medicine
8.	Type	Activity (check all that apply)
	Instructional	
	Research	X
	Public Service	X

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

The Center for Rural Health and Social Service Development (CRHSSD) provides leadership and professional services – through community engagement, outreach and research – to aid in the development of the health care and social service systems of Illinois’s lower forty-two counties. The CRHSSD brings together the resources of Southern Illinois University—the faculty, staff and students—to work as partners with area agencies to successfully address the most pressing health and social service problems of the region.

Primary activities of the CRHSSD are grant and project development (identification of grant opportunities, coordination and facilitation of regional development projects with partner collaboration, and the development, coordination, and management of grants); research and evaluation (conducting needs assessments, pilot projects, project evaluations, publishing/presentation of research findings, and development/recommendation of policy alternatives); training and workforce development (conducting regional training needs assessments, developing/coordinating/sponsoring training opportunities, curriculum development for funded projects, provision of continuing education units (CEUs) for social workers and counselors, and facilitation of SIUC student learning, mentoring, and internship opportunities); and community engagement and outreach (representation of the SIU School of Medicine in southern and southeastern Illinois, provision of technical assistance and content expertise, service in national, state, regional, and local capacities, and development/enhancement of community partnerships, projects and activities).

9.2 Mission

The Center for Rural Health and Social Service Development exists to strengthen southern Illinois’s rural health infrastructure and promote opportunities for enhancing health primarily in rural communities.

9.3 Objectives

To accomplish the goal of being a resource center addressing health and social service issues that impact the lives and productivity of the citizens in southern and southeastern Illinois, the Center for Rural Health and Social Service Development provides leadership for health and social services development to Southern Illinois University, the southern and southeastern Illinois region, and the state of Illinois.

Primary objectives of the CRHSSD include:

1. Advance development of the health and social services infrastructure in southern Illinois. Coordinate and conduct program demonstrations. Develop alternative service delivery systems.
2. Develop new knowledge and practice in regional health and social services through increased scholarship and research. Support and coordinate new grant development of community projects and programs. Stimulate and conduct cooperative research.
3. Enhance funding for regional health and social service programs through external grants and contracts. Develop resources to support improvement in the delivery of community health and social service programs.
4. Participate and lead where possible in the development and implementation of public policy associated with regional health and social service programs. Develop policy alternatives and recommendations.

5. Contribute to the development of a well-prepared professional health/social service workforce for the southern Illinois region. Coordinate and conduct continuing education activities for the regional health and social service workforce.
6. Develop and enhance an effective network of community health and social service agencies for the southern and southeastern Illinois region. Act as a collaborative partner for regional development projects.

10. Advisory Board

10.1 Advisory Board - Membership

CRHSSD Advisory Board: A 14-member advisory board made up of community and university volunteers guides the Center for Rural Health and Social Service Development and acts in a consultative capacity on projects, activities, and overall direction. The board meets once per calendar quarter to stay acquainted with and up-to-date on all CRHSSD projects and plans, in addition to providing valuable input and leadership into development, research, service and training functions.

CRHSSD Advisory Board members in FY2019 are:

- Jean Alstat, Director of Crisis and Community Services, Centerstone of Illinois, Carbondale
- Fred Bernstein, Executive Director, Community Health and Emergency Services, Inc., Cairo
- Jennifer Brobst, Assistant Professor, SIU School of Law
- Brian Chapman, PhD, Special Projects Director, SIU Office of the President
- Randy Dauby, CEO/Administrator, Pinckneyville Community Hospital, Pinckneyville
- Cindy Flamm, CEO, Rural Health, Inc., Anna
- Carl Flowers, PhD, Director, SIUC Rehabilitation Institute
- John Hamman, PhD, Associate Professor, SIUC Political Science
- Angie Hampton, CEO, Egyptian Public and Mental Health Department, Eldorado
- John Jackson, PhD, Visiting Professor, SIU Paul Simon Public Policy Institute
- Patsy Jensen, Executive Director, Shawnee Health Service, Carterville
- Bill Jung, Executive Director, RIDES Mass Transit District, Harrisburg
- Kathy Swafford, MD, Pediatric Physician, Anna
- Woody Thorne, Vice President of Community Affairs, Southern Illinois Healthcare, Carbondale

10.2 Number of Meetings (In This Year) 4

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. External funding generated	\$300,000	\$2,513,799
2. Grant Applications – Number/Funding Sought	3 Projects/ \$250,000	4 Projects/\$1.0 million
2. Publications and Presentations	3	4
3. Continuing Education Programs	5	36
4. Community Collaborations	75	200
5. University Collaborations	10	25

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, and public service activities.

11.2 Major Accomplishments (In This Year)

Drug Endangered Children (DEC) programming

DEC trainings are designed to teach communities how to develop a coordinated response for assistance utilizing “a multidisciplinary strategy”, with the goal of changing “the trajectory of a drug endangered child’s life through recognition of a common vision, ongoing collaboration between disciplines, and ongoing change in practices and policies, all of which increases the likelihood of better outcomes for drug endangered children”. Trainings are provided by Eric Nation, Director of Training and Development, as well as Stacey Read, Director of DEC Network Development, both of whom have extensive experience in child protective services and the Drug Enforcement Agency.

FY 20 Accomplishments:

- Richland County Addictions Prevention Coalition hosted a DEC training on October 11, 2019 in Olney, IL. This training was a collaboration between all public and private school systems in both Richland and Lawrence counties, as well as the CRHSSD/SIU School of Medicine and had over 500 in attendance.
- As a result of the DEC training, the Richland County Alliance for Drug Endangered Children was established in January 2020, with plans to implement a “Handle With Care” program within the area school systems.
- Planning for a DEC training for school employees in Crawford County began, with a target date of November/December 2020.
- Continued work establishing the Illinois Alliance for Drug Endangered Children, with a target date of April/May to conduct a “Train the Trainer” conference for 15-20 targeted people from several organizations around the state in order to accommodate the increased need for awareness of the issues surrounding DEC.

Health Career Pipeline Programs

Community College Pathways to Medicine (CCPM): CCPM was developed as a community college extra-curricular “club” that involves both upper level high school students, as well as community college students, who are interested in and have an aptitude for a career in medicine. The group meets at Lincoln Trail College (LTC), a part of Illinois Eastern Community Colleges, four times during the school year. LTC is partnering with SIU School of Medicine – Center for Rural Health and Social Service Development to develop an educational health career pipeline for these students with the goal of exposing them to the requirements for attending medical school, options for health education tracks, professional/educational development opportunities, and overall exposure to the medical field.

FY 20 Accomplishments:

- 28 students participated in the program this fiscal year. Topics discussed included medical school preparation and requirements, health education tracks, cost and financing of medical education, as well as various guest speakers from the medical field who began their career at the community college level.

CareeRX: CareeRX is a multi-county extracurricular club that involves 10 area high schools in the Eastern region of Illinois. The club meets once per month in the evening during the regular school year at a location in the Charleston/Mattoon area, involving youth from the various participating high schools. Serving as a health career pipeline program with exposure to multiple medical professions, each month's session offers a unique look into a particular medical field, many using a hands-on experience to solidify the information for the students. After a student participates in 3 sessions, they are given a stethoscope as an incentive to continue their participation, and annual competitive scholarships are available.

FY 20 Accomplishments: 50 participants heard topics that included medical school requirements and preparation and a tour of the Eastern Illinois University cadaver lab led by senior level EIU pre-med students, cardiology, surgery, family practice, psychiatry, advanced level nursing, and radiology. The program culminated in a well-attended health career/education fair at Lake Land College, in which students and parents were given the opportunity to explore various colleges and careers in the medical field. 4 scholarships of \$250 each were awarded.

Upward Bound Summer Program: Upward Bound (UB) is a program that is designed for high school students who will be considered first generation college students within their family. The UB Summer Program meets for 6 weeks during the summer and offers a variety of core curriculum classes with academic tutoring, social and cultural development opportunities, college/career counseling, as well as educational and professional exploration opportunities and internships. There are 100 students from 7 counties involved in UB, and the program is free for the students accepted into it.

FY 20 Accomplishments: SIU School of Medicine was approached to collaborate with the UB Summer Program in FY 19. Utilizing educational tools that are also used for CCPM and CareeRX, a "Medical Career Exploration" class was developed. 47 students who will be seniors in high school for the 2019-20 school year are registered for the class that meets one day per week over 5 weeks, in two different locations within the Illinois Eastern Community Colleges network (Wabash Valley College in Mt. Carmel on Tuesdays, and Olney Central College in Olney on Wednesdays). Topics include medical career exploration, medical school preparation and requirements, ethics in medicine, problem based learning opportunities/case studies, pharmacy, opioids and illegal drugs, and rural family practice.

Olney Central College collaborative class: Olney Central College's (OCC) life science division will be collaborating with SIU SOM to offer a Spring '21 class in exploring medical careers. This project is still in the early planning stages.

Campus Suicide Prevention Grant—"It Takes a Village"

In 2016, SIU School of Social Work received a Garrett Lee Smith (GLS) Campus Suicide Prevention grant from Substance Abuse and Mental Health Services Administration (SAMHSA). The purpose of this grant is to assist the university in building essential capacity and infrastructure to support expanded efforts to promote wellness and help-seeking of all students, including those experiencing substance abuse and mental health problems who are at greater risk for suicide and suicide attempts. The CRHSSD became the fiscal agent and administrative home to this grant in September 2017

FY 20 Accomplishments: The third annual Out of the Darkness campus suicide walk surpassed its goal of raising \$15,000 for the American Foundation for Suicide Prevention. The Red Folder was distributed to faculty/ staff fall semester 2019. Over 200 students received Talk Saves Lives Suicide gatekeeper training. SIU/CRHSSD hosted a state-wide Suicide Prevention Conference, *Find Hope Here* that also included a pre-conference offering of Mental Health First

training provided by Jeff Franklin.

Continuing Education Program

The Continuing Education Program, formerly the Community Training Program, was created in 2002 to fill training and continuing education gaps for rural health care and social service providers in the southern Illinois region. A steering committee of university and community partners originally directed the efforts of this program to assist in connecting with regional training needs. Conferences, workshops, and trainings are coordinated and developed with regional partners in response to assessed needs, with the CRHSSD providing social work and professional counselor CEUs.

FY 20 Accomplishments: The CRHSSD provided CEUs for trainings offering 213 continuing education units for regional licensed social workers and licensed professional counselors.

Illinois CATCH Onto Health Network

Since 2007, the CRHSSD, as the lead agency, in partnership with the Illinois CATCH onto Health Consortium (ICHC), has facilitated the Coordinated Approach to Child Health (CATCH) in elementary schools throughout the southern 16 Illinois Delta counties. The funding for this project is through the Delta States Rural Development Network Program (DSRDN) grant from the U.S. Department of Health and Human Services' Health Resources and Services Administration. The award is part of a federal initiative to improve access to primary health care in the 205 counties and parishes within the eight state Mississippi Delta Region. The primary role of the CRHSSD is to coordinate the overall project within the Illinois region and, in collaboration with the partners, establish goals and move toward sustainability of the program's successes. The Illinois CATCH onto Health Consortium (ICHC) continues to provide leadership for building increased capacity for Illinois Delta schools to effectively improve school health through policy, systems, and environmental change, thus promoting sustainability and a strong fundamental attitude regarding the importance of general wellness, both in schools and in the community.

FY 20 Accomplishments: The HRSA funded project continues to incorporate the CDC's *Whole School, Whole Community, Whole Child Model (WSCC)* approach for coordinated school health programming. While continuing all current CATCH components, the enhanced and expanded school health efforts included in the WSCC approach allows for the integration of a strong emotional and mental health component into school-based efforts. This expanded focus incorporates Youth Mental Health First Aid training, Signs of Suicide (SOS) curriculum, bullying and character education, professional development on Illinois' Social and Emotional learning standards, and strengthens the region's mental health workforce serving school-aged children. ICHC members, who are certified Youth Mental Health First Aid instructors, have conducted trainings throughout the Illinois Delta region, preparing over 400 school and community personnel to recognize the need for intervention and referral. Also, over 500 children have received SOS training, increasing their ability to help a peer who might be experiencing a mental health crisis. ICHC members have also been assisting participating schools to become trauma-informed and build resilience in their students.

Medical Reserve Corps (MRC)

The Medical Reserve Corps (MRC) is a national network of volunteers, organized locally into MRC units dedicated to improving the health and safety of their communities. MRC units engage both medical and non-medical volunteers to strengthen public health, improve emergency response capabilities, and build community resiliency. The Jackson County, Illinois MRC is housed in the Jackson County Health Department (JCHD). The JCHD is partnering with the Center for Rural Health and Social Services Development (CRHSSD) to develop an SIU branch (hereafter called the SIU MRC) of the Jackson County MRC (JC*MRC) comprised of students, faculty, and staff. The SIU MRC volunteers participate in JC*MRC outreach activities, volunteer trainings, and disaster drills and exercises. The SIU SOM CRHSSD service area includes 22 counties in southern Illinois. Along with enhancing the capacity of the JC*MRC, SIU MRC volunteers have been encouraged to develop innovative projects that address the health needs of the communities within the SIU School of Medicine's southern service area. The SIU

MRC project is overseen by the CRHSSD, and volunteer activities are coordinated each semester by SIU Medical/Dental Education Preparatory (MEDPREP) MPH practicum students. **FY20 Accomplishments:** Three *CPR/First Aid/AED certification classes were held for MEDPREP Students. Stop the Bleed:* This training was held at the Jackson County Health Department and was provided by Southern Illinois Healthcare Regional Hospital Coordinating Center.

Opioid Use Disorder Project/Southern Illinois Behavioral Health Consortium

Since 2014, CRHSSD has embarked in a collaborative effort with Community Behavioral Health Association of Illinois (CBHA), Southern Illinois Healthcare (SIH), the Healthy Southern Illinois Delta Network (HSIDN), and Shawnee Health Service (Southern Illinois Opioid Use Disorder Steering Committee, SI OUD SC) to host and facilitate a regional “Call for Community Solutions” effort to combat prescription drug/opioid and heroin abuse in the 33 southernmost Illinois counties.

FY 20 Accomplishments: The USDA has joined our partnership and on July 18 an interdisciplinary educational conference was held. The event included a Workforce/Employer tract that focused on how opioid use disorder is impacting the southern Illinois workforce and employers. In addition, CRHSSD assisted with Town Hall events to raise awareness in Wayne, Hamilton, and Alexander Counties with planning underway in Jasper and Clay Counties. At least sixteen regional counties have active drug coalitions in which CRHSSD staff participate.

Resilient Southern Illinois (RSI)

Fostering and building resilience among children is the focus of Resilient Southern Illinois (RSI). Supported by a host of regional and state-wide partners, including CRHSSD, RSI will work over two years with up to 15 school districts in the Illinois Delta to become “trauma-sensitive.” RSI also works with a smaller group of districts on building community-school partnerships to bolster what the schools are doing. Schools are a logical starting place for efforts to build awareness of childhood trauma and strategies to address it. RSI believes that ultimately the greatest impacts will be achieved when schools and their community partners work together to address adversity and poverty. School districts are selected for a pilot effort to bring schools, health organizations, religious congregations, local government, and other partners together to create a trauma-informed community.

FY 20 Accomplishments: Year three includes 2 areas of growth—1) inclusion of pre-k and early childhood feeder sites in a couple of pilot sites; and 2) Increase collaboration between the schools and their local communities in a select number of pilot sites by enlisting the CRHSSD to provide technical assistance to identify, assess and engage additional community partners in sustainability of their efforts. Jeff Franklin and Eric Wiedenman worked closely with the RSI efforts and have joined the Steering Committee. Steering Committee members have been attending convening’s in Boston with the Harvard Educational Redesign Lab.

Rural Opioid Prescriber Training Program

The SIU School of Medicine Department of Psychiatry is in its fourth year of funding for the Rural Opioid Prescriber Training Program. The program is coordinated out of the SIU Center for Rural Health and Social Service Development (CRHSSD). Through the program, trainings for opioid prescribers have been developed and delivered in person and via videoconferencing throughout the 66 county region. Free continuing education credits are offered for both the live and taped trainings. The target audience includes all opioid prescribers, such as physicians, physician assistants, pharmacists, dentists, nurses, mental health providers, public health department staff, substance abuse and prevention providers, and others.

FY 20 Accomplishments: In FY20 The CRHSSD received funding from IDHS SUPR to develop a program to increase the number of practitioners providing Medication-Assisted Recovery (MAR) in Illinois. Physicians (MD and DO), physician assistants, and advanced practice registered nurses were offered stipends to attend a DATA-2000 waiver training, become waived to prescribe buprenorphine for Opioid Use Disorder (OUD), start providing MAR for OUD, and/or actively participate in the Opioid MAR ECHO if they were already waived. By

June 30, 2020, 348 practitioners took advantage of one or more of the incentives. Of those, 320 completed a DATA-2000 waiver training through the Southern Illinois University School of Medicine, the Illinois Society of Addiction Medicine, the American Academy of Addiction Psychiatry, the American Association of Nurse Practitioners, or online through the Providers Clinical Support System. In addition, 17 providers initiated MAR services, and 41 providers completed the stipend requirements for participation in the MAR Opioid ECHO.

Trauma-Based Behavioral Health Fellowship/OSUDS

The CRHSSD acts as fiscal agent and administrative home to the Trauma-Based Behavioral Health Fellowship Program funded through Health Resources and Services Administration (HRSA). The new four-year grant opportunity was awarded in September 2017 and operated on an accelerated five-month schedule for the first year and begins its normal 27-week cycle for graduate level students focusing on trauma-based understanding and practice in both social work and rehabilitation counseling. The students receive hands-on experience and mentorship across a multifaceted platform by working with professionals who represent many disciplinary practices as well as a stipend.

FY 20 Accomplishments: During Year 3 of this grant cycle, the Fellowship successfully trained 38 graduates this grant year.

In Addition:

The CRHSSD was active in seeking grant and contract funding for expanded programs, increasing scholarly output, and participating in professional and community organizations promoting health and social services development. In FY2020, the CRHSSD received \$2,513,799 in external grants and contracts, \$1.1 million of which was reallocated to the surrounding community through various collaborations with health and social service organizations.

In the spring of 2020, the CRHSSD was asked by the Illinois Dept. of Human Services Division of Substance Use Prevention and Recovery to serve as one of five Substance Use Disorder Regional Leadership Centers in Illinois (RLCL). In the first year of funding, the CRHSSD RLC, which will serve the southern 33 counties in Illinois, will focus on creating a support network and mentoring program for providers that offer Medication Assisted Recovery services. The RLC will also work with SIU Dept. of Psychiatry and SIU Medicine's telehealth program to expand behavioral health services in the southern region. In addition, the CRHSSD, in partnership with other SIU School of Medicine departments, will expand substance use disorder educational and training opportunities statewide. The program is funded for two years and the work will begin in FY21

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

The Center for Rural Health and Social Service Development supports the priorities of the State of Illinois, Southern Illinois University, and the SIU School of Medicine. The CRHSSD advances Goal 4 of the Illinois Public Agenda and its call to use "educational, research and innovation assets to meet economic needs of the state and its region." The CRHSSD's reliance on community networks and public/private partnerships and the focus on community service directly support the priorities of the SIU Board of Trustees and SIU Carbondale. The center's mission complements SIU's mission and its call to "improve our communities" and the SIU goal for "collaboration with the broader community in our mutual goals of research translation, workforce education, and economic development and (to) sustain and grow SIU's outreach and service mission." The CRHSSD is a practical example of SIU School of Medicine's mission area of "service to the community" and numerous medical school strategic priorities, including those dealing with workforce development, research, patient health, and engagement with the community.

11.4 Evidence of Support for Center/Institute Objectives

In FY2020, the Center for Rural Health and Social Service Development advanced its center objectives as outlined in 9.3 above. The center's numerous, diversified community projects support its primary objective for development of the regional health and social services infrastructure. The CRHSSD had over 200 active community partnerships in the past year and received over \$2.5 million in extramural funding, filtering over \$1.1 million back into the southern and southeastern Illinois region. This positively impacted the region's economy and its health/social services infrastructure; this is evidence of support for the center's community collaboration, research, and funding enhancement objectives. In support of its educational and workforce development objective, the CRHSSD contributes to the educational mission of the university and the medical school by providing learning experiences for student interns and graduate assistants. Students are assigned project responsibilities of substance that provide hands-on research and/or service experience while benefiting the communities in which the projects are implemented.

11.5 Evidence of Organizational Effectiveness

The Center for Rural Health and Social Service Development is effective as an organization. The center's mission and activities support the priorities of the State of Illinois, Southern Illinois University, and SIU School of Medicine as well as meet the expectations of its community partners and funding agencies. The CRHSSD has extensive partnerships and collaborations with health and social service agencies in the southern Illinois region. It has been successful in attracting external grant funding. The center's most recent program review in 2019 found that the CRHSSD was active and respected in the region, that it had formed effective collaborations with regional groups, and that it was a strong voice for rural, southern Illinois. The Center for Rural Health and Social Service Development is well situated for future success.

12. Institutional Assessment

12.1	Date of Last Review	<u>2019</u>	
12.2	Decision at Last Review	<u> X </u>	Center/Institute in Good Standing <u> </u> Center/Institute Flagged for Priority Review <u> </u> Center/Institute Suspended
12.3	Explanation	N/A	

RESOURCES: Center for Rural Health and Social Service Development

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016	FY2015
Revenues						
State Appropriations	210,443	150,372	150,372	153, 576	153,576	152,742
External Grants	2,513,799	2,216,506	1,692,518	1,261,162	559,282	719,514
Contractual/Income	1,537.	30,342.	4,313	7,688	20,793	5,643
Rural Health Initiative ¹	161,600.	161,600	161,600	112,000	120,000	100,000
Indirect/Overhead Return	75,848	43,590	32,404	25,794	14,604	20,144
Total Revenues	\$2,963,227	\$2,602,410	\$2,041,207	\$1,560,200	\$868,255	\$998,887
Expenditures						
Salaries	456,835	606,031	569,350	422,938	394,576	447,468
Fringe Benefits	56,154	117,111	154,228	118,294	56,372	76,683
Travel	29,300	20,293	29,535	19,422	7,210	20,420
Equipment	3,844	1,856	4,627	0	4,351	2,016
Commodities	31,803	23,590	17,585	20,905	5,737	58,820
Community/University Program Grants ²	609,791	708,111	687,921	481,864	289,405	290,000
Contractual - Other	430,000	139,331	110,761	71,395	47,771	23,697
Indirect to University	110,249	151,140	136,402	121,857	59,405	65,912
Total Expenditures	\$1,727,976	1,767,463	1,710,409	\$1,256,695	\$864,827	\$983,000
Revenue Minus Expenditures	\$1,235,251	\$834,947	\$330,798	\$303,505	\$3,428	\$15,877

1. The Rural Health Initiative funding is based on state appropriated funds administered by the SIU School of Medicine. These funds support community projects designed to assist rural and underserved areas in central and southern Illinois with increasing access to health care services, improving local health care infrastructure, and identifying educational opportunities for medical students focused upon rural experiences.
2. Community/University Program Grants funds are portions of external grants received by the CRHSSD which are apportioned to community organizations or other SIU units.

Staffing (Full Time Equivalent)¹		FY2019	FY2018	FY2017	FY2016	FY2015
Faculty	0.00	0.00	0.00	0.00	0.00	0.00
Staff	11.00	11.00	7.80	8.00	7.00	7.00
Extra Help	3.0	3.00	0.77	0.00	1.00	2.00
Graduate Assistants	2.0	5.00	2.00	3.00	4.00	5.00
Student Workers	0.00	1.00	0.00	0.00	0.00	0.00
Total Staffing	16.00	20.00	10.57	11.00	12.00	14.00

1. Staffing (FTE) includes FTEs of those faculty and staff receiving direct salary support from the CRHSSD.

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	Southern Illinois University Carbondale						
2.	Center/Institute	SIU Clinical Center						
3.	Date	March 23, 2021						
4.	Director	Holly Cormier						
4.1	Telephone	618-453-2361						
4.2	E-mail	cormierh@siu.edu						
5.	Year Established	1958						
6.	Illinois State Statute (if pertinent)	N/A						
7.	Reporting Unit	Associate Provost – David Dilalla						
8.	Type	<div style="text-align: center;">Activity (check all that apply)</div> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%; padding-right: 10px;">Instructional</td> <td style="border: 1px solid black; text-align: center; width: 30%;">Yes</td> </tr> <tr> <td style="padding-right: 10px;">Research</td> <td style="border: 1px solid black; text-align: center;">Yes</td> </tr> <tr> <td style="padding-right: 10px;">Public Service</td> <td style="border: 1px solid black; text-align: center;">Yes</td> </tr> </table>	Instructional	Yes	Research	Yes	Public Service	Yes
Instructional	Yes							
Research	Yes							
Public Service	Yes							

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

The SIU Clinical Center is a training hub that provides direct clinical training experiences to graduate student clinicians from Clinical Psychology, Communication Disorders and Sciences (CDS), and Educational Psychology. In accordance with these disciplines, the clinic provides outpatient services in the areas of: speech, language, and hearing services; psychological services, including individual adult and child therapy, couple and family therapy, group therapy, and psychological assessment.

To facilitate this training, the Clinical Center maintains required medical/clinical records; provides therapy rooms; provides recording equipment and other supervision supports such as one-way observation areas; maintains a resource library that houses and maintains psychological testing material, speech and language assessment materials, treatment manuals and supportive materials, intervention equipment such as language materials, toys and other therapy materials. The clinic operates in alignment with national accrediting standards and students are trained, accordingly.

The Clinical Center maintains licensed professional coverage for mental health services during open hours as required by Medicare. This licensed professional is available to back up any student clinician in an emergency situation.

9.2 Mission

Since 1958, the Clinical Center's primary mission has been training. It provides supervised, on-site training to graduate students as they engage in clinical practice in their respective disciplines. In service of that mission, the clinic provides clinical services to our surrounding community, and also provides clinical research opportunities to our licensed faculty.

9.3 Objectives

- 1) To provide clinical training experiences that prepare students for licensure and/or internship placement.
- 2) Ensure that students are trained to use research based, best practice treatments and assessments.
- 3) Coordinate with academic programs to ensure that the clinic provides training experiences and opportunities that are congruent with national accreditation standards for a given discipline.
- 4) Provide community service in the course of fulfilling training mission.
- 5) Provide research opportunities for supervising faculty.

10. Advisory Board

10.1 Advisory Board - Membership

1)	Deb Pender – Counselor Ed.
2)	David Dilalla – Associate Provost
3)	Chad Drake – Clinical Psychology
4)	Karla Fehr – Clinical Psychology
5)	Erin Connelly – Communication Disorders and Speech
6)	Atheana Meadows – Communication Disorders and Speech
7)	Holly Cormier – Clinical Center director
8)	Amber Drake – Clinical Center
9)	Diane Muzio – Clinical Center
10)	Cindy Clark – Clinical Center

10.2 Number of Meetings (In This Year) **One meeting occurred in 2020, but not all members were in attendance.**

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. Client Satisfaction Surveys	We do not satisfaction survey data since we entered into the pandemic. The data to the right is the most accurate client feedback data.	Overall Satisfaction with therapy services (max. 5) – the average client rating was 4.7 Overall Satisfaction with Staff Services was 4.58
2. Re-applied for Jackson County 708 Funding	\$20,000.00	\$20,000.00
3. Collect and Explore Clinical Center Client Data	N/A	Actively compiling a database
4. Initiate Research Activity and Collaborate with Outside Training Clinics	N/A	The clinic director is on two research committees within the Association of Psychology Training Clinic Directors
5. Patrick, S. L., & Cormier, H. C. (2020). Are our lives the experiment? COVID-19 lessons during a chaotic natural experiment—a commentary. <i>Health Behavior and Policy Review</i> , 7(2), 165-169.	Co-authored a publication	

Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

11.2 Major Accomplishments (In This Year)

We have successfully secured another year of funding from the Jackson County 708 board. We also maintained clinic operations, clinic training experiences, and client care throughout the entire pandemic, with the exception of the first two weeks of the university wide shut down. During those two weeks, a telemental health program was developed, faculty and students were trained, and clients were surveyed and given support for their set-up to use these services.

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

The clinic's central mission is training. In service of fulfilling this mission, the Clinical Center provides service and support to our surrounding communities. We offer an array of clinical services at a reduced rate. The clinic collaborates with a number of community agencies to address issues related to accessibility and availability and is active in many areas related to community engagement.

11.4 Evidence of Support for Center/Institute Objectives

- 1) We assign clients to student clinicians. Clinicians carry a caseload that is consistent with their program and national accrediting body requirements.
- 2) Students receive didactic training in their home departments and receive clinical supervision of the work with clients. Student clinicians provide clinical treatment that is consistent with didactic training and supervision.
- 3) The clinic director and the clinical support staff work with instructional and supervising faculty of the various programs that we serve. These meetings and collaborations ensure that the clinic provides a training setting that is consistent with program requirements.
- 4) We provide an array of clinical services to members of our surrounding communities.
- 5) Three faculty supervisors are currently collecting data in the Clinical Center. Two other faculty members are in the planning phase of a clinical research study, but they have since separated from the university.

11.5 Evidence of Organizational Effectiveness

The mission of the clinic is training. While in the clinic, students accrue direct service hours and receive supervision and training in treatment and assessment. Near the completion of their programs, these students compete for nationally accredited internship placements across the country. In clinical psychology, this is a highly competitive process given that there are more students seeking APA accredited internship placements than there are available placement positions. Since 2013, all clinical psychology graduate students have successfully matched for internship placements, and in most cases, they matched with the first or second choices. A part

RESOURCES: Clinical Center

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016
Revenues					
State Appropriations	337,988.60	338,621.74	319,132.19	359,585.56	340,810.51
Income Fund	127,186.37	139,469.95	147,055.00		
Grants & Contracts	6,360.00	29,502.00	23,810.00		
Non-Mandatory Transfer In	0.00	4,000.00	4,400.00		
xxx					
xxx					
Total Revenues	465,810.97	511,593.69	494,397.19		
Expenditures*					
Salaries	365,685.46	373,193.80	337,885.34		
Equipment	21,766.21	450.68	11,918.54		
Travel	263.70	2,358.62	4,494.36		
Contractual	19,695.37	13,424.28	18,013.49		
Commodities	14,521.60	11,862.37	10,189.38		
Telecom	3,000.52	4,106.77	4,878.62		
Wages	6,698.07	4,106.77	4,878.62		
Refunds and Returned Checks	495.00	7,912.49	7,200.64		
Awards & Grants	1,622.52				
Non-Mandatory Transfer out	6,184.83				
Total Expenditures	439,933.28	413,719.01	389,039.31		
Revenue Minus Expenditures	25,877.69	97,874.68	105,357.88		

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

PLEASE NOTE: WE HAD A DELAY IN OUR FEE COLLECTION AS WE TRANSITIONED TO TELEHEALTH. MUCH OF OUR REVENUE FROM 2020 WILL BE REFLECTED IN 2021.

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	2.75	2.75	4.5	3.5	3.5
Staff	5.74	5.74	6.5	6.5	6.75
Total Staffing	8.49	8.49	11	10	10.25

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	Southern Illinois University Carbondale
2.	Center/Institute	Cooperative Wildlife Research Laboratory (CWRL)
3.	Date	March 19, 2021
4.	Director	James E. Garvey (proxy for Interim VC Research)
4.1	Telephone	618-536-7761
4.2	E-mail	jgarvey@siu.edu
5.	Year Established	1950
6.	Illinois State Statute (if pertinent)	N/A
7.	Reporting Unit	Vice Chancellor for Research
8.	Type	Activity (check all that apply)
	Instructional	X
	Research	X
	Public Service	X

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

As recently as 2017, the CWRL consisted of one director and 6 full time Faculty members (two positions, one in Wildlife Toxicology and the Wildlife Director are currently vacant), who also have appointments ranging from 25% - 50% in the Departments of Zoology or Forestry. Teaching and research focus on basic and applied wildlife ecology and natural resource management. Faculty members teach both graduate and undergraduate courses, and the lab generally has ~30 active MS and PhD students at any point in time. The CWRL shares 2 full time office staff and 1 student worker with the Fisheries unit in a single office in Life Sciences II. Resources include modern research labs, a centralized computer facility, field vehicles, and an off-campus annex with laboratory, office, and storage space.

9.2 Mission

The CWRL has a mission of teaching, research, and service consistent with that of Southern Illinois University Carbondale. Teaching efforts focus on both graduate and undergraduate training. Faculty members also advise zoology and forestry majors, especially those with an emphasis in wildlife biology. It currently supports a Professional Science Masters in Wildlife Management.

Basic and applied research in the CWRL emphasizes the welfare of people, wildlife resources, and their environments. Research programs address regional/state needs and priorities, but also extend to international scales to serve the needs and interests of many concerned with natural resource use and its influence on the well-being of wildlife and humans.

9.3 Objectives

The overall goal of the CWRL is to train basic and applied wildlife researcher sand managers at the graduate and undergraduate levels. Consistent with this goal, CWRL faculty and staff work to maintain the unit's excellent record of research productivity and generating grant funds to support research and education. CWRL faculty and staff also work to maintain a cohesive, collaborative environment that fosters a very interactive group of students. The CWRL has a remarkable history of placement of graduates in career positions.

Key future objectives:

Fill the currently vacant faculty position in Wildlife Toxicology

Fill the vacant CWRL Director position.

Grow enrollment in the recently launched Professional Science Masters in Wildlife Administration and Management degree program.

Continue to identify emerging issues in wildlife management and ecology in order to determine research areas such that the CWRL will maintain its national and international recognition.

Maintain traditional areas of research funding through state agencies and a niche in applied wildlife research, while increasing numbers of successful large federal competitive grants and associated indirect funds.

Adapt and develop degree programs, tracks, and specializations that will keep CWRL graduates competitive for jobs and other graduate programs.

Maintain and upgrade shared resources (vehicles and other major equipment) to foster productive collaborations among faculty members in the CWRL and other units

Continue to develop and expand outreach and public education programs, such as the Graduate Research Assistants Supporting Science (Grass) program to address needs in southern Illinois beyond SIU.

10. Advisory Board

10.1 Advisory Board - Membership

No advisory board.

10.2 Number of Meetings (In This Year) 2 meetings of faculty

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. Grant funds generated	\$1,500,000	\$506,881
2. Peer-reviewed Publications	25	73
3. Graduate Students Enrolled	15	27
4. Graduate Students Finishing Degrees	5	4
5.		

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

11.2 Major Accomplishments (In This Year)

Dr. Eichholz elected Chair-in-waiting, The Wildlife Society College and University Education Committee.

Dr. Eichholz served on the Upper Mississippi River Great Lakes Joint Venture Technical Committee.

Dr. Eichholz served on the Mississippi Flyway Council Technical Committee

Dr. Boyles invited to 2020 European Bat Research Conference

Dr. Boyles contributed to two invited book chapters

Dr. Boyles served as Associate Editor of Functional Ecology

Dr. Bastille-Rousseau served on advisory committee: Member of the Illinois Habitat Fund Advisory Committee

Dr. Bastille-Rousseau collaborated with Touch of Nature and the Union Hill Homeowners Association to build two deer exclosures showing the impacts of deer on vegetation to the broader public

Dr. Bastille-Rousseau is part of a wildlife disease working group including researchers from 5 universities, USDA, and USGS leading to a >2M NSF proposal (in review)

Dr. Nielsen - author of 2020 SIUC Forestry M.S. Program self-study report.

Dr. Nielsen - Faculty Mentor for SIUC Honors Program student Sarah Booth (Zoology).

Tati Gettelman, Zoology M.S. student advised by Clay Nielsen, poster titled Surgically Implanting River Otters with Intra-Abdominal Radiotransmitters Using Reversible Non-DEA Scheduled Drugs, was named Best Student Poster Presentation at the 2020 Virtual The Wildlife Society Conference.

Bri Winkel, Forestry M.S. student advised by Clay Nielsen, poster titled Cougar Recolonization of Eastern North America: Habitat Connectivity and Human Dimensions, was named Best Student Poster Presentation at the 80th Midwest Fish and Wildlife Conference, Springfield, IL.

Tiffanie Atherton, Zoology Ph.D. student co-advised by Clay Nielsen and Ed Heist, oral presentation titled Rescued by the Neighbors? The Potential Need for a Genetic Augmentation of Eastern Woodrats in southern Illinois, was named Second Place Student Oral Presentation at the 80th Midwest Fish and Wildlife Conference, Springfield, IL.

11.3 Evidence of Support for Illinois Public Agenda, SIUC Board of Trustees, and SIUC Campus Strategic Planning

The CWRL maintains a productive, high quality research, training, and teaching program that is consistent with the SIUC Strategic Improvement Plan's vision of SIUC as developing "broad and carefully monitored graduate and research programs of high quality." As outlined above, CWRL faculty members consistently receive external grant dollars, produce peer-reviewed

publications, and produce undergraduate and graduate students that excel in the job market. The CWRL also enhances the mission of “public service... guided by its location in a region of small communities, farms, and mines” through research projects and outreach programs that address local issues related to game management, outdoor recreation, wildlife diseases, and nuisance wildlife species. The CWRL also supports SIUC’s “Pathways to Excellence” by enhancing the research status of SIUC and providing research and training opportunities for graduate and undergraduate students.

11.4 Evidence of Support for Center/Institute Objectives

As outlined in 11.1 and 11.2 above, the CWRL continues to meet its annual objectives of securing significant external funding, producing high quality research products such as peer-reviewed publications and books, and graduating students that are competitive in their fields. These activities provide numerous opportunities for undergraduate and graduate students in the zoology and forestry programs. Graduate enrollment in the CWRL dropped during the state budget crisis because the Federal Aid funding, which supports much of the CWRL’s research and graduate training activities, was unavailable during this period. The fact that graduate enrollment is rebounding quickly reflects the solid reputation of the program.

11.5 Evidence of Organizational Effectiveness

The CWRL is currently under the direction of the Interim Vice Chancellor for Research. The CWRL and SIU Center for Fisheries, Aquaculture, and Aquatic Sciences have combined their front office resources, support staff, and computing facilities to increase efficiency. It is important to note that the Center contributes a significant portion of its FTEs in state appropriations to teaching while pursuing its research and service missions.

12. Institutional Assessment

12.1	Date of Last Review	2018	
12.2	Decision at Last Review	<input checked="" type="checkbox"/> Center/Institute in Good Standing <input type="checkbox"/> Center/Institute Flagged for Priority Review <input type="checkbox"/> Center/Institute Suspended	
12.3	Explanation	(briefly provide any explanation necessary of the institutional assessment or plans for pending program review)	

RESOURCES: Cooperative Wildlife Research Laboratory						
Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016	FY2015
Revenues:						
State Appropriations	306,060.55	355,414.84	458,493.58	221,266.16	473,628.24	512,526.69
Local Accounts	75,122.18	92,553.44	76,128.29	28,557.18	80,647.29	111,656.72
Grants & Contracts	125,628.49	222,593.61	434,498.90	320,614.35	927,126.18	1,011,633.63
Total Revenues	506,811.22	670,561.89	969,120.77	570,437.69	1,481,401.71	1,635,817.04
Expenditures:						
Salaries	878,357.32	850,688.42	906,538.23	681,670.29	985,484.09	1,030,716.16
Wages	20,257.97	30,205.12	26,295.14	11,516.91	14,633.19	31,873.96
Travel	35,677.52	35,541.92	27,591.96	26,772.27	39,220.27	51,222.04
Equipment	42,282.44	3,325.92	1,027.99	(36,285.04)	32,470.93	117,567.00
Commodities	122,109.71	188,961.46	260,681.40	124,062.01	217,598.42	248,962.70
Contractual Services	74,855.92	59,597.45	58,987.69	52,255.67	206,667.35	139,969.11
Op/Auto	93,490.48	75,883.80	33,312.16	15,175.32	65,082.10	59,135.77
Telephone	9,718.31	13,081.46	2,987.60	3,053.86	3,764.01	5,826.86
Fringe Benefits	28,990.02	23,274.49	47,618.51	5,911.55	43,616.64	60,751.85
Indirect	176,373.58	155,889.78	150,297.27	48,848.67	209,114.61	155,976.22
Other	574.00	1,000.00	29,528.30	20,000.00	3,301.34	11,161.35
Total Expenditures	1,482,687.27	1,437,449.82	1,544,866.25	952,981.51	1,820,952.95	1,913,163.02
Revenue Minus Expenditures	(975,876.05)	(766,887.93)	(575,745.48)	(382,543.82)	(339,551.24)	(277,345.98)
* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.						

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016	FY2015
Faculty	5	5	7	5	5.2	5.2
Staff	58	71	54.3	21.3	49.8	66.7
Students	15	21	14.5	12	11.0	16.0
Graduate Assistants	10.5	8	13.5	8.8	14.0	13.3
Total Staffing	88.5	105	89.3	47.1	80.0	101.2

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	<u>Southern Illinois University Carbondale</u>
2.	Center/Institute	<u>Fermentation Science Institute (FSI)</u>
3.	Date	<u>3/25/2021</u>
4.	Director	<u>Matthew McCarroll</u>
4.1	Telephone	<u>618-453-7508</u>
4.2	E-mail	<u>mmccarroll@siu.edu</u>
5.	Year Established	<u>2014 (approved by IBHE)</u>
6.	Illinois State Statute (if pertinent)	<u>N/A</u>
7.	Reporting Unit	<u>Provost and Vice Chancellor for Academic Affairs</u>
8.	Type	Activity (check all that apply)
	Instructional	<input checked="" type="checkbox"/>
	Research	<input checked="" type="checkbox"/>
	Public Service	<input checked="" type="checkbox"/>

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

The Fermentation Science Institute (FSI) supports fermentation related activities through support and administration of the fermentation science *academic degree program*, the operation of the *FSI Service Laboratory*, support of the Illinois Food, Entrepreneurship, Research and Manufacturing (iFERM) Hub of the Illinois Innovation Network, support of fermentation related *research*, and *outreach* to fermentation related businesses and economic development.

9.2 Mission

The mission of the FSI is to support the students and faculty of Southern Illinois University Carbondale to advance knowledge in the associated areas of fermentation science and to transfer this knowledge through our educational programs, research activities and outreach to the region and fermentation related industries, which includes the production and analysis of alcoholic beverages, fermented foods and cheese, and industrial fermentation (energy and pharmaceutical).

9.3 Objectives

Administer and Support the Degree Program in Fermentation Science and Other Educational Activities. The Director, faculty and staff of the FSI will support and administer the Bachelor of Science degree in fermentation science, which is housed both physically and administratively within the FSI and seek opportunities to engage with other academic areas of campus.

Establish Professional Advisory Board. The Director of the FSI will continue establishing further industry contacts and to identify and invite appropriate individuals to serve on the advisory board of the Institute.

Encourage and Support Research Efforts. The Director will continue to work with the campus community to encourage research in the general area of fermentation science and to identify and support research that builds synergies and opportunities for students, faculty and industry partners.

Manage and Expand FSI Service Laboratory. The Director, in coordination with staff, will oversee operations of the Service Laboratory and will expand its impact and effectiveness to the campus community and the businesses served by the laboratory by expanding its outreach base and to provide a revenue stream supporting the mission of the FSI.

Maintain and Expand Infrastructure. The director will oversee efforts to maintain current infrastructure supporting the educational, research and outreach mission of the FSI, as well as leading efforts and identifying opportunities to expand the capabilities of the FSI to further its mission.

Fundraising and Promotion. The Director will continue to work with the SIU Foundation to identify and work with prospective donors to enhance the effectiveness and impact of the programs, activities, and infrastructure of the FSI. Additionally, the Director will actively promote the FSI and its objectives on both regional and national levels.

Public Outreach and Engagement. The FSI will actively identify and support public outreach and engagement with the public for the purpose of supporting the objectives and mission of the FSI and SIU.

10. Advisory Board

10.1 Advisory Board - Membership

Professional Advisory Board (in progress)

Florian Kuplant – Brewmaster and Co-Owner, Urban Chestnut Brewing Company

Mark Yocum – Technical Director, North America, Anheuser Busch InBev

Paul Cobet – Anheuser Bush (retired)

Alastair Pringle – Board Examiner, Institute of Brewing and Distilling

Bradley Beam – Enology Specialist, Illinois Grape Growers and Vintner’s Association

Eric Stamp – Corporate QA Manager, MillerCoors

10.2 Number of Meetings (In This Year) 0 (informal consultations ongoing)

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. Fundraising	-	\$100
2. Research Projects	2	2
3. Sponsored/Hosted Events	2	2†
4. Carbondale Brewfest	-	\$3,107
5. FSI related Grant Proposals Submitted	2	8
6. Grant Proposals Funded	2	3
7. Testing Services	\$30,000	\$37,154

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

†Several planned events were cancelled due to the COVID-19 pandemic.

11.2 Major Accomplishments (In This Year)

Key targets/objectives and outcomes of the FSI include the following:

- Facilities and Infrastructure
 - Management of facilities that house the FSI in the McLafferty Annex on the Carbondale campus which include:
 - Administrative operations for the FSI
 - Teaching laboratories to support fermentation courses and the fermentation science degree program
 - Laboratories to support operation of the FSI Service Laboratory
 - Teaching classroom and tasting facility
 - Pilot brewery supporting teaching, research and outreach activities
 - Coordinated ongoing development of plans for expansion of facilities in the McLafferty Annex
 - Fae Minor McGill Kitchen and Sensory Laboratory (provided by charitable donation to and in collaboration with Hospitality Management)
 - Malting Facility (secured through \$120,000 USDA grant)
 - Teaching Distillery (provided by \$90,000 industry donation, \$40,000 grant from USDA/Delta Regional Authority)
 - Production brewery (industrial partnership with commercial brewery)
 - Inclusion as a hub of the Illinois Innovation Network (\$2.5M project authorized by IIN and pending action by the Capital Development Board)
 - Established infrastructure and staffing for business operations of the FSI, including support for the academic, research, outreach and event management activities of the institute
- Programmatic
 - Administered the 4-year BS degree in fermentation science, including the production of the first 3 graduates from the program
 - Developed and gained approval for new interdisciplinary course supporting the new interdisciplinary minor in Ancient Practices
 - Recruited Mr. Wade Begrow of Founders Brewing Company as an assistant lecturer to teach the advanced yeast technology course (FERM 462)
- Research
 - Support of research activities in fermentation science
 - Spearheaded and supported multiple projects involving industry at the regional and national level, faculty and students from multiple schools, departments and colleges across campus.
 - Analytical support for fermentation related research by campus faculty and students in the FSI Service Lab
 - Research and development support for fermentation and related industries

- Service and Outreach
 - Expanded the FSI Service Laboratory, which is a fee-for-service 3rd party testing facility focused on analysis of alcoholic beverages
 - Obtained certifications from the Federal Tax and Trade Bureau for the analysis of beer, wine and spirits (one of only six 3rd party testing facilities certified for beer, wine and spirits nationally)
 - Has provided services for nearly 60 business, including services helping to launch new business and products
 - **In FY20, 1,020 analyses were performed on 555 submitted samples for a revenue of \$37k.**
 - Provides training and student work opportunities for students
 - Support of regional fermentation industry and economic development
 - Supports and Collaborates with the Illinois Grape Growers and Vintners Association (IGGVA) and the Shawnee Hills Wine Association
 - Member and collaborator with the Illinois Craft Brewers Association and the Master Brewers Association of the Americas (MBAA)
 - Co-Organizer of Carbondale Beer Festival (cancelled due to COVID-19)
 - Outreach and professional consultation to fermentation businesses
 - Community outreach

Note: most planned activities were cancelled due to COVID-19

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

Supporting the Illinois Public Agenda:
 The development of and activities by the Institute support several aspects of the Illinois Public Agenda. The core mission of the Institute is squarely aligned with Goal 4 *of integration of educational, research & innovation assets*. The degree program in fermentation science also supports Goal 1 of *Educational Attainment*. Based on the local, regional and national growth of the craft brewing sector, the planned programs and activities also contribute to Goal 3 of *High-Quality Credentials to meet Economic Demand*.

Supporting the SIU Board of Trustees Strategic Plan:
 The activities of the Institute related to program development and the initiation of new programs are well aligned with the Board of Trustees strategic themes of *promoting satisfaction and success*. The operation of the service laboratory, the coordination of student internship opportunities, the unique niche of the degree program and the general outreach activities of the Institute all contribute to the Board’s goal of *innovating to transform our state and region*, and the goal of *building a stronger system by developing alternative sources of revenue and additional revenue centers*, as well as theme of *developing our people and our places*.

Supporting the SIU Carbondale Strategic Plan:

The development of the Fermentation Science Institute facilities in the McLafferty Annex provides students and faculty with state-of-the-art laboratories and teaching space, which support several of the primary goals of the campus strategic plan to *contribute to student success*, and to *encourage research, scholarship and creative activities*. As a new, interdisciplinary institute with interdisciplinary programs, the FSI furthers the SIU strategic plan by acting to *strengthen campus community and community relations* by bringing together faculty interest from various departments and colleges in efforts to capitalize on untapped programmatic and research opportunities. By developing novel programs with an efficient, administrative structure, the Institute also contributes to the SIU strategic plan goal of improving *finance, infrastructure and resource allocation*.

11.4 Evidence of Support for Center/Institute Objectives

Administer and Support Degree Program in Fermentation Science and Other Educational Activities.

Recognition of Degree Program. In spring of 2017, the FSI received formal program recognition by the Master Brewers Association of the Americas as one of six 4-year degree programs in North America. The program is the only recognized program in the central region of the country. The program has produced 3 graduates and has nearly 20 majors in the program to date and growing.

Develop Articulation Agreements. Transfer students constitute an important part of the student body at SIU. By developing articulation agreements with select community colleges, we can help to ensure that students are well prepared to succeed at SIU. In conjunction with the Articulation and Outreach Office, we have developed articulation agreements with Richland Community College and Oakton Community College and anticipate development of additional agreements in the future.

Faculty Hires. The FSI assisted in recruiting and developing a successful offer to bring in a new faculty member in August of 2019. Professor Jayakody holds a joint appointment with the Departments of Microbiology and Plant Biology, with a 25% appointment in the FSI.

General Promotion of FSI and degree program. Significant effort was placed on promoting the FSI and the degree program, including attending state and national meetings. In person activities were curtailed in the second half of the fiscal year due to the pandemic.

Support of Other Academic Opportunities. The FSI actively engages with other departments and academic programs. In a recent success, the FSI director serves as co-PI on a \$100,000 grant from the National Endowment for the Humanities to develop a new interdisciplinary minor in ancient practices, with the goal of attracting STEM students toward coursework in the humanities.

Establish Professional Advisory Board.

The advisory board has been filled to a nearly functional level. The topic gaps that are missing are in industrial and pharmaceutical fermentation. Discussions have started and are ongoing with several companies in these areas with the aim of building partnerships and defining roles on our advisory board.

Encourage and Support Research Efforts

The FSI serves a central role in bringing together fermentation related research projects on campus and with industry partners. Faculty from several departments and colleges are involved in various research projects and have developed grant proposals.

FSI Enabled Grant Proposal Submissions in FY20:

“Campus Distillery Training Facility”, Delta Regional Authority / USDA, Matt McCarroll (PI) \$40,000, 1/1/2020-3/31/2020 [FUNDED]

“Grant in Aid”, Illinois Grape Growers and Vintners Association (IGGVA), Matt McCarroll (Co-PI) and Mandy Rothert (Co-PI), 1/1/2020-12/31/2021, \$8,876. [Funded, provides funds for IGGVA member to access testing services in the FSI]

Title: Green Tea for Green Plastic, Green Core LCC (Japan), Pre-Proposal (Accepted, agreement stage, effective 04/01/2021), PI: Lahiru Jayakody, co-PI- Ken B. Anderson, Matthew McCarroll, \$289,742 [funded]

“Heterogeneous photocatalytic transformation of brewers’ spent grain to value-added chemicals by metal oxide nanomaterials under mild conditions”. Jia Liu, Boyd M. Goodson, Matthew McCarroll. 09/01/2020-08/31/2023. DOE Concept Paper. \$1,250,000. [declined]

“SIU Initiative for Food Safety Education, Research and Training”, USDA, \$749, 934 PI: Ruplal Choudhary, co-PI: Jebaraj Asirvatham, Steven Still (UIUC), Derek Fisher, Punit Kohli, co-PI: Lahiru Jayakody, Sylvia Thoms, April Teske, Matt McCarroll. [declined]

“Varietal and Geographical Correlation on Barley Malt Amylase Enzyme Production”, USDA-NIFA-NLGA, \$148,438, Katherine Witrick (PI). [declined]

“Comparison of Bicarbonate Inhibition of Brettanomyces Bruxellensis and a Regional Wild Strain of Brettanomyces in Beer”, Brewers Association, \$19,578, Katherine Witrick (PI). [declined]

“A Universal Headspace Gas Chromatography Method for Alcohol Determination in Beverages”, Matthew McCarroll (PI) and Amanda Rothert (Co-PI), American Society of Brewing Chemists, 9/1/2020-6/30/2021, \$6,955. [declined]

We also have an ever-increasing number of students involved in research that is facilitated by the FSI. Honors projects for students in chemistry have been facilitated in the FSI, including participation of Kevin Smith, a senior lecturer in the Department of Chemistry and Biochemistry. Additionally, students majoring in fermentation science obtain formal research credit working with faculty. In addition, the FSI supports research activities of our faculty and students in other programs.

Manage and Expand FSI Service Laboratory.

Efforts are ongoing to establish a network of clients. This expands the reach and impact of the FSI while also providing service for the industry. The activity provides revenue for the program and training grounds to further the educational opportunities of our students. The laboratory has maintained formal certification from the Tax and Trade Bureau of the U.S. Government for the analysis of beer, wine and spirits for nearly 5 years. During this time, the service lab has experienced a significant increase in request for services. **In FY20, 1020 analyses were performed with an associated revenue of over \$37,000.**

Maintain and Expand Infrastructure.

At the time the FSI was launched, physical infrastructures were not yet in place to fully support its operations. Following formal recognition of the FSI by the IBHE, initial activities focused on securing funding and overseeing design/construction for the facility that now houses the Fermentation Science Institute. During FY17 the laboratories of the FSI were completed and commissioned into operation, which enabled use of dedicated teaching facilities for the newly approved degree program. In addition, the facilities have been used to host a number of workshops for high school students and community members. Interest in our facility has been significant and multiple tours and activities are facility each year.

Pilot Facilities. Pilot facilities are either complete and in place or are in various stages of planning and implementation. The Director was Principle Investigator (with the Vice Chancellor for Research and the Executive Director of the SIU Research Park now serving as co-leads) on an infrastructure grant that has been submitted to the Illinois Innovation Network (IIN), which would provide \$5.5M in funding to build out remaining infrastructure that will support facilities in the FSI, as well as other units as part of the proposed *Illinois Food, Entrepreneurship, Research, and Marketing (iFERM) Hub*. The IIN committed to support Phase 1 of the project with an initial tranche of \$2.5M. Governor Pritzker announce the release of funds for the IIN project and its associated hubs in February of 2020 and we currently await action from the Capital Development Board to begin the project. The current and pending facilities supported by the iFERM Hub are listed below.

Pilot Brewery. A ½ barrel brewery has been established and is operational. The system serves as a primary teaching and research tool for faculty and students in the fermentation science program, as well as research and collaborations with industry partners.

Pilot Distillery. The Director secured a commitment from Artisan Still Designs to donate a custom designed multi-column distillery. The value of this donation is on the order of \$90,000. A grant from the Delta Regional Authority and the USDA for \$40,000 has been awarded to assist in establishing the training distillery. This facility will differentiate the program and provide world-class training to our students, as well as outreach training and workshop opportunities. The equipment is onsite and will be put into operation as the necessary infrastructure is put in place.

Malting Facilities. The SIU Malting Facility, provided by a grant from the USDA Rural Development Program, has been installed and ready for operations. The malting facility will serve as both a training hub and a demonstration to support and spur economic development in value-added agriculture.

Fae Minor McGill Teaching Kitchen and Sensory Laboratory. The FSI continues to support efforts toward completion of the Fae Minor McGill Teaching Kitchen and Sensory Laboratory, which is based on the vision and bequest of the late Fae Minor McGill. As a collaborative effort with the Department of Animal Science, Food and Nutrition, plans have been developed to build a teaching kitchen and sensory laboratory in the McLafferty Annex. The project will result in a commercial production kitchen and formal sensory laboratory that will be used by multiple departments for teaching, research and outreach activities. The infrastructure proposed in the *iFERM Hub* will support and allow completion of this resource.

Public Outreach and Engagement.

Carbondale Beer Festival. The FSI carried out its 5th year partnering with the Carbondale Main Street organization to organize the Carbondale Beerfest. Unfortunately, the festival was cancelled due to the pandemic. The festival typically draws over 700 attendees with ½ of the net proceed benefiting the activities of the FSI. We hope to continue this valuable event when it is safe to do so.

The FSI also hosts various activities engaging the local community, including educational tasting events, partnering with the local homebrew club (hosting meetings and competitions). The FSI also co-sponsors the SIU Farm to Fork event, which is a semi-annual, sold-out event for 150 students, faculty, staff and community members. A coursed meal made from locally grown ingredients is paired with locally produced wine and beer. The FSI curates the pairings and its staff and students facilitate the service and alcohol related activities of the event. The event was hosted in the fall of 2019 and was widely considered a success.

11.5 Evidence of Organizational Effectiveness

FY20 represented a period of increasing stability for the FSI. Earlier resignations of key staff members and unbelievable inadequacies of the civil service systems ability to provide candidates left operation of the institute largely to the director for much of the previous year. Despite these challenges, the institute maintained and expanded the fermentation degree program and its offerings, as well as maintaining normal business operations and the Service Laboratory. In July of 2019 an excellent and experienced office administrator was hired and provided support and stability to the operations during the fiscal year. In September of 2019 an extremely capable and experienced laboratory operations coordinator was brought into the institute with the primary responsibility of running the Service Laboratory. All aspects of the Institute are now running smoothly and at full capacity. As an essential front-line service, the FSI maintained safe operations through the COVID-19 pandemic providing service to the

industry. In addition, the FSI pivoted part of our effort and registered with the FDA to manufacture hand sanitizer to address a shortage the campus was experiencing. In the coming months the FSI was able to provide sanitizer for Building Services to distribute to campus buildings during the pandemic.

12. Institutional Assessment

12.1 Date of Last Review Permanent State Granted by IBHE 2019

12.2 Decision at Last Review Center/Institute in Good Standing
 Center/Institute Flagged for Priority Review
 Center/Institute Suspended

12.3 Explanation _____

RESOURCES: Fermentation Science Institute

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016
Revenues					
State Appropriations	198,696.37	184,712.22	142,075.58	59,517.97*	166,242.25
Service Lab	37,129.36	15,484.19***	**15,640.96	19,829.72	1,234.00
Overhead Recovery (expenditure)	3,766.09	15,000.00	6,266.02	2,598.22	15,500.00
Course Fees	1,035.00	1,380.00	1,455.00	NA	NA
Awards and Grants	160,427.00†	53,244.47	120,427.00	NA	NA
Total Revenues	401,053.82	269,820.88	285,864.56	81,945.91	182,976.25
Expenditures*					
Salaries	189,475.70	153,884.72	132,854.58	139,451.69	121,578.83
Travel	6,575.86	12,112.33****	4,690.15	2,254.28	6,292.68
Equipment	108,444.04	53,315.70	3,678.80	1,576.21	19,609.16
Commodities	25,251.67	14855.00	14,065.05	9,886.78	17,203.32
Contractual Services	20,377.25	9129.94	8,477.80	13,711.35	16,388.68
Awards and Grants	0	0	0	0	1,443.00
Telecommunications	734.07	613.26	962.31	960.00	585.30
Course Fees	276.51	1,839.16	1,075.58		
Total Expenditures	351,135.10	245,750.11	165,804.27	167,840.31	181,657.97
Revenue Minus Expenditures	49,918.72	24,070.77	120,060.29	-85,894.40*	1,318.28

* Negative balance is a result of retroactive sweep of state account following state budget crises. State budget was on track for a balanced closeout and revenue from the Service Lab would have been positive.

** Represents a beginning cash balance of \$6,632.60.

*** Represents a deficit of \$2,273 balanced by accounts receivable in FY20.

****Includes travel related to equipment transportation.

†Represents beginning balance from FY18 of \$120,427

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	.25	.5	.25	.25	0
Staff	2.5	2.5	2.5	1.5	1.5
Total Staffing	2.75	3.0	2.75	1.75	1.5

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	Southern Illinois University Carbondale
2.	Center/Institute	Illinois Soybean Center
3.	Date	March 17, 2021
4.	Director	Jason P. Bond
4.1	Telephone	618-453-4309
4.2	E-mail	jbond@siu.edu
5.	Year Established	1997
6.	Illinois State Statute (if pertinent)	N/A
7.	Reporting Unit	College of Agricultural, Life, and Physical Sciences
8.	Type	Activity (check all that apply)
	Instructional	√
	Research	√
	Public Service	√

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

Southern Illinois University Carbondale (SIUC) has a long history of excellence in soybean research, teaching, and outreach. For over half a century, several generations of SIUC faculty have continued to build upon this excellent reputation with soybean growers and the industry to address production challenges and to find new uses for soybean. The Illinois Soybean Center (ISC) was first established in 1997 as the Center for Excellence in Soybean Research Teaching and Outreach (CESRTO) through a state appropriation. In 2008, the name was changed to the ISC. In 2005, the ISC was granted a \$500,000 endowment from the Illinois Soybean Association. The terms of this endowment allowed for SIUC to match the interest generated by the endowment for use in ISC activities. In the formative years of the ISC, activities focused on improving production techniques with various cultural practices, developing and releasing improved soybean genetics, and developing management strategies for weeds, diseases, and other production constraints. Subsequently, additional focus areas included the utilization of soybean in food and feed.

SIUC provides a unique home for the ISC as a “center without walls” to foster more significant interdisciplinary research, teaching, and outreach with investigators representing various units within the College of Agricultural, Life and Physical Sciences, the School of Medicine, and the Fisheries and Illinois Aquaculture Center. Recent interdisciplinary collaborations benefitting soybean production include research projects addressing nutrient runoff, soil and water conservation, cover crops and their integration into the production system, microbiome research with plant pathogens, using biocontrol agents to manage disease, and the use of multispectral imagery with UAVs and other systems to monitor plant health. The faculty collaborate with scientists with land grant universities in the U.S. and international institutions and research centers. During the past seven years, research programs affiliated with ISC have received support from the Illinois Soybean Association, the United Soybean Board, North Central Sustainable Agriculture Research and Education (SARE) program, the North Central Soybean Research Program, the Illinois Nutrient Research & Education Council, and from numerous corporate sponsors.

9.2 Mission

Development of technologies using an interdisciplinary approach to enhance soybean production in Illinois and in the North Central Region, increase soybean utilization by the global community, contribute to the base of scientific knowledge, and educate human capital.

9.3 Objectives

- 1) Conduct research on soybean that increases basic knowledge and contributes practical solutions to stakeholder problems.
- 2) Develop new soybean cultivars and germplasm that enhance production and value.

- 3) Facilitate technology transfer of research outcomes to growers, to the soybean industry, and to consumers.
- 4) Establish consortia with public and private organizations to enhance research, teaching and outreach for mutual benefit.
- 5) Encourage multi-disciplinary research and improve external funding opportunities.

10. Advisory Board

10.1 Advisory Board - Membership

Board of Directors: The Board of Directors seeks budget and facilities support for the ISC. Additionally, this group determines fund use priorities, establishes an administrative structure for the ISC and approves, and promotes events and activities associated with the ISC.

1. Associate Dean, COAS, Chair
2. Chair, Department of Plant, Soil, and Agricultural Systems
3. Chair, Department of Animal Science, Food and Nutrition
4. Chair, Department of Agribusiness Economics
5. Fisheries and Illinois Aquaculture Rep
6. Faculty Rep
7. Illinois Soybean Association Executive Director
8. Illinois Soybean Association Chairman
9. Illinois Soybean Association District Rep
10. Dean, COAS – Ex Officio

Faculty Advisory Board: Represent faculty members from multiple colleges within SIUC to develop and propose ISC program priorities, events and activities. They also support needs of the Board of Directors.

<u>Faculty Member</u>	<u>Discipline Areas</u>
Dwight Sanders	Agribusiness Economics
Ed Heist	Animal Biotechnology
Gary Apgar	Animal Nutrition
David Lightfoot (deceased)	Biotechnology/Genomics
Dawn Null	Food and Nutrition
Kanchan Mondal	Engineering/Technology
Scott Hamilton-Brehm	Microbiology
Buck Hales	Medical Physiology
Andrew Wood	Plant Biology
Stella Kantartzi	Plant Breeding
Ahmad Fakhoury	Plant Pathology
Karla Gage	Weed Science
Amir Sadeghpour	Soil Science

10.2 Number of Meetings (In This Year) 0

11. Annual Performance

11.1 Performance Measures *

Measure	Previous Year	Results in Year
1. Publications	22	24
2. Public Service Activities (Field Days, Conferences, workshops, etc.)	24	16
3. National/Regional Research Projects or Working Groups	18	19
4. Graduate Students Trained (MS and PhD)	22	20
5. Undergraduate Student Workers Trained	38	18
6. Undergraduate Leadership Training (Agronomy Honor Society)	55	0
7. Undergraduate Job Placement/Graduate School	11	3
8. Graduate Students Job Placement/Graduate School	9	5
9. Grant Dollars	\$2,455,216	\$8,216,497
10. Internships	10	7

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

11.2 Major Accomplishments (In This Year)

Covid-19 greatly impacted many aspects of the faculty research, teaching, and outreach. However, total grant funding, publications, and research projects increased during this period. The Director met with United Soybean Board, North Central Soybean Research Program, and Soybean Centers Directors from Iowa, Missouri, Indiana, and Ohio and discussed initiatives and scope of each center and funding opportunities. An initiative for communication efforts that would serve each center was also planned.

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

In review of the general expectations for Centers and Institutes for the SIU System, the Illinois Soybean Center has evidence of support for these expectations set forth in table 11.1:

Create and transfer knowledge to students and other learners –

Offer students and other learners’ opportunities to apply knowledge to the real world –

Soybean researchers trained 18 undergraduates and over 700 industry, alumni, and soybean stakeholders in the past year. Center faculty also helped place 8 undergraduate and graduate students with jobs, internships, and positions at other universities.

Support graduate and professional students – Faculty research grants led to the support of 20 graduate students (MS and PhD).

Support undergraduate research activity – Faculty research grants led to the support of 18 undergraduate student researchers.

Enhance the university’s external reputation – Faculty were engaged with 19 National/Regional Research Projects. Faculty also contributed via publications, public service activities across the state of Illinois and secured millions in research funding.

Engage and contribute to the welfare of the people we serve – Faculty presented workshops presentations to over 770 people representing industry, alumni, and soybean stakeholders. Faculty are actively involved in recruitment, retention, and placement.

Translate research finding to useable products and services for academia and the public – Faculty research grants led to 24 publications in scientific journals and provided crop management recommendations via extension talks and publications.

Maintain a minimal critical mass of faculty – Over the last 5 years, the number of faculty involvement in soybean research has been affected by a reduction in state research funding. Several researchers have diversified their research portfolios.

11.4 Evidence of Support for Center/Institute Objectives

Conduct research on soybean that increases basic knowledge and contributes to practical solutions of stakeholder problems - This is evident by the amount of research grant funding and the number of publications. Faculty at SIU have a great reputation among the funding agencies and review boards of professional journals.

Develop new soybean cultivars and germplasm that enhance production and value - SIU did not release new soybean cultivars and germplasm in this reporting cycle, but historically this has been a hallmark of the soybean research program at SIU.

Facilitate technology transfer of research outcomes to growers, to the soybean industry, and to consumers - This is evident by the number of publications, extension presentations, workshops, and one-on-one training sessions.

Establish consortia with public and private organizations to enhance research, teaching and outreach for mutual benefit - Currently, SIU soybean researchers are the Lead Investigators on 3 National United Soybean Board Projects. The Illinois Soybean Center is actively engaged with State, Regional, and National Soybean Associations in addition to Soybean Centers at The Ohio State University, Iowa State University, University of Missouri, and Purdue University.

We encourage multi-disciplinary research and improve external funding opportunities as evidenced by our faculty advisory board and the amount of grant funding.

11.5 Evidence of Organizational Effectiveness

A significant limitation of the Illinois Soybean Center is that there are limited funds to operate the Center, and there are no staff members assigned to the Center. The Director also does not have an administrative appointment (no release time). He is volunteering to serve in this capacity while maintaining a full workload of teaching, research, and service. The ISC is structured to have a Director serving at the Dean level or higher. Since the last review, the ISC was hurt by the instability in campus administration, including having five different Deans or Interim Deans. Also, campus reorganization made it impossible to initiate a strategic plan. There is no functioning Board of Directors, in part because there are no longer Department Chairs to serve on the committee. For greater stability, SIUC administration should review the option of placing the ISC under the Vice-Chancellor of Research as the other centers on campus. The new areas of soybean research in medical, environmental, and engineering and the expanding research, teaching, and outreach capacity of the College of Agricultural, Life, and Physical Sciences highlight the future of the ISC as a center without walls for several colleges.

The current Director has spent considerable time working with leadership at the USB, NCSRP, and the other four soybean centers in the Midwest to maintain the visibility of the ISC. Since 2016, The Director has spent time maintaining the relationship with the Illinois Soybean Association. From 2012 – 2018, the ISA almost entirely stopped funding research at state universities. Throughout this past year, the Director and the Deans at the time presented the research, teaching, and service capabilities of the ISC to the new Chief Executive Officer of the ISA. New leadership at ISA is committed to seat several of their former directors on the new Board of Directors.

The current Director is planning to step down at the completion of the review later this spring. The Director and the Deans have ensured that the endowed funds were matched, protected, and positioned to help relaunch the ISC and help the new Director and the new Board of Directors steward the Center.

12. Institutional Assessment

12.1	Date of Last Review	<u>2012 (2021 review ongoing)</u>
12.2	Decision at Last Review	<input checked="" type="checkbox"/> Center/Institute in Good Standing <input type="checkbox"/> Center/Institute Flagged for Priority Review <input type="checkbox"/> Center/Institute Suspended
12.3	Explanation	(briefly provide any explanation necessary of the institutional assessment or plans for pending program review) <hr/>

RESOURCES: Illinois Soybean Center

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016
Revenues					
State Appropriations	-	-	-	-	179,319.36
Income Fund	-	-	-	-	-
Grants & Contracts (faculty research activity)**	\$8,216,497	2,455,216.00	5,493,186.00	2,067,169.00	2,370,269.00
University Match on Interest from Endowment***		20,542.51	82,138.29	-	-
Distribution from Endowment		20,542.51	20,535.29	20,535.20	20,534.59
Total Revenues****	-	-	-	-	199,853.95
Expenditures*					
Salaries	-	-	-	-	214,507.03
Fringe Benefits	-	-	-	-	-
Travel	-	-	237.14	-	-
Equipment	-	-	-	-	-
Commodities	-	-	-	-	-
Contractual Services	-	-	-	-	-
Award and Grants (Grad As. Fee)	-	-	-	-	284.70
Operation of Auto	-	-	-	-	-
Telecommunications	-	-	-	-	-
Total Expenditures	-	-	-	-	214,791.73
Revenue Minus Expenditures	-	-	-	-	41,107.77

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

** Not direct funding to the Center. Faculty research activity associated with Center as reported by Faculty. Includes, multi-year projects that were initiated in FY 2020.

*** University Match received in 2018 includes the matches for FY14, FY15, FY16.

**** Total Revenues does not include Grants and Contracts, that are managed by faculty.

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	-	-	-	-	1.53335
Staff	-	-	-	-	0.875
Total Staffing	-	-	-	-	1.6459

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	Southern Illinois University Carbondale
2.	Center/Institute	Materials Technology Center
3.	Date	March 18, 2021
4.	Director	Ian Ivar Suni
4.1	Telephone	618-453-7822
4.2	E-mail	isuni@siu.edu
5.	Year Established	1983
6.	Illinois State Statute (if pertinent)	Unknown
7.	Reporting Unit	Office of the Vice Chancellor for Research
8.	Type	Activity (check all that apply)
	Instructional	Aspirational
	Research	XX
	Public Service	

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

The Materials Technology Center was established in 1983 as a result of a high-technology thrust by the state of Illinois. Charged with stimulating Materials-related research on the campus of SIU, the center accomplishes this mission through initiating interdisciplinary research in the Colleges of Engineering and Science, disseminating results to researchers in academia, industry, and national laboratories, and organizing Materials seminars and discussion groups. The center encourages research in new areas by administering competitive seed grant programs that fund projects for faculty entering new areas of materials research and provides technical, administrative and financial support to start-up and established research programs. A historical strength of the center has been research in the area of carbon-carbon composites, but the center has expanded its leadership and expertise in carbon science to include areas such as carbon nanotubes and development of carbon material precursors. New areas of emphasis include Materials Design by Iterative Computation, Synthesis and Characterization; Sensors, Biosensors, and Biointerfaces; and Energy Storage. Other research programs focus on catalysis, including CO₂ reduction; magnetic materials, including Heusler alloys; alternative and traditional energy technologies; polymers, including organic photovoltaics and protein immobilization chemistries; chemical vapor deposition; inkjet, wax, and 3D printing; mechanical behavior of cells, and their behavior atop surfaces; covalent materials; carbon nanotubes, graphene, and other nanotechnologies; data-driven Raman spectroscopy; and metal-organic frameworks. Under the guidance of established experts, students associated with MTC receive hands-on training and valuable experience. The total program of the center offers an opportunity for students at all levels of experience to train in the fields of Materials Science and Engineering. The web address for the Materials Technology Center is <http://mtc.siu.edu/>

9.2 Mission

The mission of the Materials Technology Center is to advance and develop new technologies involving the synthesis, processing, understanding, and application of advanced materials in order to address the Grand Challenges facing humanity, and to provide students with the necessary education and training to address these Challenges. These Grand Challenges include economical solar energy and other alternative energies; improved medicines and biomedical technologies, including those involving the human brain; carbon sequestration; reduced greenhouse gas emissions and environmental remediation; improved clean water technology; finding sustainable alternatives to rare earth elements, and other scarce elements of technological importance; and advancing scientific inquiry.

9.3 Objectives

We endeavor to:

- Invite outside seminar speakers and guests in the field of Materials Science and Engineering (MSE) to SIUC to enable greater understanding of the various MSE sub-

disciplines by our students and faculty. This is particularly valuable for the three research focus areas of the Materials Technology Center: Materials Design by Iterative Computation, Synthesis and Characterization, Sensors and Biosensors, and Energy Storage.

- Provide editorial advice, matching funds, and other assistance as needed for Materials faculty to write grant proposals to federal agencies, state agencies, foundations, and industry as needed.
- Provide periodic support for seed grants to MTC faculty to aid in their ability to start research projects in new fields, and subsequently obtain external grant funding.
- Provide periodic guidance and advice into emerging areas within Materials Science and Engineering research as need for MTC faculty. One emerging area is the application of advanced topics in Computer Science and Mathematics (i.e. Machine Learning, Data Science-Mining) to Materials Science and Engineering research.
- Support an active Materials Research Society University Chapter at SIUC. This was a specific suggestion from our previous IBHE review.
- If possible, start appropriate graduate curricula in the field of Materials Science and Engineering. This is another specific suggestion from our previous IBHE review. The Materials Technology Center awaits further action to implement a sustainable funding mechanism for such graduate programs.
- Lobby for, write proposals for, and support the acquisition of advanced equipment for Materials characterization and Materials processing.

10. Advisory Board

10.1 Advisory Board - Membership

Dr. Punit Kohli, Professor of Chemistry and Biochemistry
 Dr. Michael Lydy, Professor of Zoology, and Adjunct Professor of Chemistry and Biochemistry
 Dr. Farhan Chowdhury, Professor of Mechanical Engineering and Energy Processes
 Dr. Lichang Wang, Professor and Chair of the Department of Chemistry

10.2 Number of Meetings (In This Year) 1

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. Host outside seminar speakers	2	2
2. Peer reviewed publications by MTC faculty	50	68
3.		
4.		
5.		

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

11.2 Major Accomplishments (In This Year)

The Materials Technology Center hosts a series of academic seminars, bring internationally renowned researchers to campus to meet with SIUC students and faculty. During FY 20, seminar speakers included:

- Prof. Young-Shin Jun, Department of Energy, Environmental, and Chemical Engineering, Washington University. Seminar entitled, “Photothermal Membranes for Energy-Efficient Water Purification,” on September 12, 2019.
- Prof. Julia Medvedeva, Department of Physics and Materials Research Center, Missouri University of Science and Technology. Seminar entitled, “Fundamentals of Amorphous Oxide Semiconductors,” on October 4, 2019
- Dr. Andrzej Nycz, Oak Ridge National Laboratory, seminar planned on Additive Manufacturing (3D printing) on April 15, 2020. Seminar was canceled due to the COVID-19 pandemic.

The Director of the Materials Technology Center is faculty adviser for the University Chapter of the Materials Research Society (MRS) at Southern Illinois University Carbondale (SIUC). During FY20, the MRS University Chapter hosted a series of luncheon meetings at which different SIUC graduate students and faculty members made presentations about their Materials research to the students in the MRS University Chapter. These meetings were discontinued after the outbreak of the COVID-19 pandemic.

A group of 20 students from the MRS University Chapter toured the Material Research Laboratory and National Center for Supercomputing application, University of Illinois at Urbana-Champaign on October 24, 2019. During this visit they took the digital photograph below:



As summarized in last year's report, the Director of the Materials Technology Center participated in a series of meetings during FY19 to discuss the creation of new curricula in two important fields: Chemical Engineering, and Materials Science and Engineering. The latter discipline is the focus of the Materials Technology Center. The former discipline is one in which the Director has a B.S. degree, and 20 years of experience as a Professor at Clarkson University. Discussions on how to start new programs in these fields continued into FY20. The Department of Mechanical Engineering and Energy Processes has been renamed the School of Mechanical, Materials, and Aerospace Engineering. The creation of specific Materials curricula will likely be a topic of future discussion.

During Summer 2019, we aided with administration and support, including financial support, the Materials Research and Education for Undergraduate (REU) program funded by the National Science Foundation (NSF) through a grant to two faculty Members (Dr. Saikat Talapatra and Dr. Boyd Goodson) of the Materials Technology Center. This involved hosting 14 undergraduate students doing Materials Science and Engineering research with a variety of SIUC faculty in different Departments (Chemistry & Biochemistry, Physics, Mechanical Engineering and Energy Processes, Civil and Environmental Engineering).

During FY20, the MTC Director did the following university service:

- Served on the Willis Swartz Scholarship Award committee.
 - Served on the University-Level Scholar Excellence Award committee.
 - Faculty advisor, MRS University Chapter, which is a registered student organization (RSO) at SIU.
 - Faculty Search Committee, Department of Mechanical Engineering and Energy Processes.
 - Graduate Committee, Department of Chemistry and Biochemistry
-

During Summer 2019, the Director of the Materials Technology Center introduced himself to Dr. Chun-Hsi "Vincent" Huang, the incoming Director of the School of Computing. I subsequently introduced him to two faculty members of the Materials Technology Center, Prof. Lichang Wang (Chemistry and Biochemistry) and Prof. Shaikh Ahmed (Electrical and Computer Engineering). Vincent Huang subsequently submitted a Major Research Instrumentation (MRI) to the National Science Foundation (NSF) as Principal Investigator, with Lichang Wang and Shaikh Ahmed as co-Principal Investigators. The Director (Ian Suni) of the Materials Technology Center was a Senior Personnel (ULSI Devices and Nanomaterials) for this proposal. While Profs. Huang, Wang and Ahmed deserve much more credit than I do, I helped to facilitate this NSF MRI proposal.

During June 2020, I started to organize a group of SIU faculty to discuss and exchange academic publications related to the following federal grant program: Signals in the Soil (SiTS) program at the National Science Foundation (NSF):

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505752.

The idea was to continue research activities to the greatest extent possible during the COVID-19 pandemic. These Zoom teleconferences and email exchanges continued into FY21, and will be discussed in more detail during next year's annual report.

In March 2019 I announced a new \$10,000 seed grant competition for members of the Materials Technology Center. Only projects in the following areas were considered:

- Collaborations between computational and experimental Materials faculty.
- Materials for quantum information science, identified for its importance by the recent National Academies publication, "Frontiers of Materials Research: A Decadal Survey (2019)."
- Collaborations with a Mathematics professor on data mining to predict new Materials or Materials properties.
- Biotechnology related proposals, including the MTC focus area "Biointerfaces and Biosensors."

The original due date for this seed grant proposal was May 1, 2020. Due to the COVID-19 pandemic, this was delayed until July 1, 2020. The grant proposals were reviewed and an award was made during FY21. This will be described in next year's annual report.

Throughout the year, the Director meets with various faculty at SIUC involved or interested in research into Materials Science and Engineering. Discussions include their research, research of other faculty in different Departments and Colleges, and how the Director might be able to facilitate interdisciplinary collaboration. This includes forwarding relevant papers, identifying research programs to which one might apply, and assistance with editing proposals.

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

The Illinois Public Agenda for Science and Technology is perhaps best summarized by the Illinois Science and Technology Roadmap, published by the Illinois Science and Technology Coalition in 2017:

https://www.istcoalition.org/wp-content/uploads/2017/03/ISTC_RoadmapFINAL.pdf

This document lists the following areas for future investment by the State of Illinois on pages 28-74:

- **Advanced Materials**
- **Alloys and Metals**
- **Polymers**
- **Batteries and Energy Storage**

- Biofuels and Biomass-derived Products
- Medical Biotechnology
- **Nanotechnology**

The areas **highlighted in bold face** above are sub-fields within Materials Science and Engineering, which is the thematic focus of the Materials Technology Center. In addition, some areas within Medical Biotechnology and Materials-related. The Director eagerly anticipates future investment in these areas as part of efforts to stimulate economic development and job growth in the State of Illinois.

The Materials Technology Center strives to aid the SIUC administration, faculty, students, and other stakeholders to accomplish the goals outlined in our Strategic Plan. For example, among the values described in our Strategic Plan are:

- We are proud of our status as a nationally ranked public research university
- We pride ourselves on innovation in research and creative activity

All of the activities described elsewhere in this Report are focused on maintaining our status as a nationally ranked public university, and increasing the quality and quantity of our research and creative activity. The Strategic Plan also identifies two important goals:

- Enhance research, scholarly and creative activity productivity to the benefit of students, community and other University stakeholders.
- Enhance our reputation for providing cutting-edge graduate and undergraduate research opportunities.

The Materials Technology Center is primarily focused around these goals through our various scholarship-focused activities.

11.4 Evidence of Support for Center/Institute Objectives

The Illinois Public Agenda for Science and Technology is perhaps best summarized by the Illinois Science and Technology Roadmap, published by the Illinois Science and Technology Coalition in 2017:

https://www.istcoalition.org/wp-content/uploads/2017/03/ISTC_RoadmapFINAL.pdf

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- **Batteries and Energy Storage**
- Biofuels and Biomass-derived Products

- Medical Biotechnology
- **Nanotechnology**

The areas **highlighted in bold face** above are sub-fields within Materials Science and Engineering, which is the thematic focus of the Materials Technology Center. In addition, some areas within Medical Biotechnology and Materials-related. The Director eagerly anticipates future investment in these areas as part of efforts to stimulate economic development and job growth in the State of Illinois.

The Materials Technology Center strives to aid the SIUC administration, faculty, students, and other stakeholders to accomplish the goals outlined in our Strategic Plan. For example, among the values described in our Strategic Plan are:

- We are proud of our status as a nationally ranked public research university
- We pride ourselves on innovation in research and creative activity

All of the activities described in this report are planned and executed to support the Center objectives that are outlined above. These include:

- Bring in outside seminar speakers and guests in the field of Materials Science and Engineering (MSE) to SIUC to enable greater understanding of the various MSE sub-disciplines by our students and faculty. This is particularly valuable for the three research focus areas of the Materials Technology Center: Materials Design by Iterative Computation, Synthesis and Characterization; Sensors, Biosensors, and Biointerfaces; Energy Storage.
- Provide editorial advice, matching funds, and other assistance as needed for Materials faculty to write grant proposals to federal agencies, state agencies, foundations, and industry as needed. This provides a sustainable feedback mechanism due to the indirect cost return agreement for 5% of the OVCR share for MTC faculty projects back to the MTC.
- Provide periodic support for seed grants to MTC faculty to aid in their ability to start projects in new fields, and subsequently obtain external grant funding

11.5 Evidence of Organizational Effectiveness

This is thoroughly documented in the remainder of this Report.

12. Institutional Assessment

12.1 Date of Last Review

IBHE review conducted during FY 14 by Dr. James Allen, SIUC Associate Provost for Academic Programs

RESOURCES: Materials Technology Center

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016
Revenues					
State Appropriations	76317	75486	75486	75426	88725
Activities Fund	40000	23000	23431		
Grants & Contracts		0	3731	17193	
xxx					
xxx					
xxx					
Total Revenues	116317	98486	102648	92619	88725
Expenditures*					
Salary	76316	75486	75486	75486	75486
OTS	1000	13000	22480	17193	13239
xxx					
Total Expenditures	77316	88486	97966	92679	88725
Revenue Minus Expenditures	39001	1000	4682	0	0

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	1	1	1	1	1
Staff					
Total Staffing	1	1	1	1	1

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	Southern Illinois University School of Medicine
2.	Center/Institute	SIU Neuroscience Institute
3.	Date	1/29/21
4.	Director	James M. Gilchrist, M.D.
4.1	Telephone	217-545-7226
4.2	E-mail	jgilchrist@siumed.edu
5.	Year Established	Academic Year 2015
6.	Illinois State Statute (if pertinent)	N/A
7.	Reporting Unit	Southern Illinois University School of Medicine
8.	Type	Activity (check all that apply)
	Instructional	X
	Research	X
	Public Service	X

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

The SIU Neuroscience Institute (NSI) is a state-designated, public service institute providing advanced multispecialty clinical care for patients with neurological disorders and/or mental health conditions. The NSI is a collaboration of SIU School of Medicine's physician practice organization (SIU Medicine) and Memorial Medical Center (MMC), a principal affiliated teaching hospital of the medical school in Springfield. The NSI coordinates the patient care services of the school's existing Department of Neurology, Department of Psychiatry, the Division of Neurosurgery and Physical Medicine and Rehabilitation (PM&R) while collaborating with MMC's neuroscience-related outpatient and inpatient services and facilities.

The Institute's physicians, health care staff, and other professionals provide advanced, coordinated treatment to patients throughout central and southern Illinois who suffer from complex, debilitating neurological or mental disorders. While the institute's focus is primarily patient care oriented, the NSI provides opportunities and resources for neuroscience-related research, medical and community education, and community outreach. As an institute based in an academic medical center, the NSI is advancing the translation of new and emerging basic research and the application of new medical products and technologies into improved patient care.

The vision of the NSI is to be housed in a single facility on the SIU School of Medicine/ Springfield campus, unifying the outpatient clinical services, research, education and operations related to the above-noted clinical departments and divisions. Once the NSI is fully implemented, patients will have seamless availability within one site to neuroscience and spine specialists, ancillary services, case management and clinical trials, all sharing common scheduling, billing and electronic health record systems. Quality and safety measures, outcomes, patient satisfaction, cost of care, and value will be substantially improved.

9.2 Mission

The Neuroscience Institute (NSI) provides comprehensive care for diseases of the nervous system for small, urban and rural Illinois communities

9.3 Objectives

Objectives of the SIU Neuroscience Institute include:

- **Clinical Objectives:** The institute coordinates adult neurology, neurosurgery, psychiatry, physical medicine and rehabilitation and related ancillary services. The institute develops disease-specific multidisciplinary clinics to improve diagnostic services and treatment as well as improve the patient's experience.
- **Patient Objectives:** The institute enhances the patient's experience through coordination of patient and support services, and develops shared patient scheduling and registration processes to ease access. Outcome metrics include patient satisfaction data, patient access and clinic utilization rates.

- Quality Objectives: Quality objectives include patient satisfaction metrics; improved physician and staff recruitment, retention, and satisfaction; improved operating efficiencies; and financial sustainability through coordination among institute departments.

The SIU Neuroscience Institute is designed to produce significant clinical, patient, operational and financial benefits. The NSI is the only regional and academically-based neuroscience institute in central or southern Illinois.

10. Advisory Board

10.1 Advisory Board - Membership

The NSI Steering Committee provides advice and oversight to the institute's leadership.

NSI Steering Committee members in FY2020 include:

- James Gilchrist, MD, Professor and Chair, Neurology, SIU School of Medicine (Executive Director)
- Jeffrey Cozzens, MD, Professor and Division Chair, Neurosurgery, SIU School of Medicine
- Kari Wolf, MD, Associate Professor and Chair, Psychiatry, SIU School of Medicine
- Michael Neumeister, MD, Professor and Chair, Surgery, SIU School of Medicine
- John Horvat, Associate Provost for Finance and Administration, SIU School of Medicine
- Mary Stewart, Chief Operating Officer for SIU Healthcare
- Kevin England, Senior Vice President and Chief Administrative Officer, Memorial Health System
- Evan Davis, Administrator, Vice President, Clinical Operations, Memorial Health System
- Charles Callahan, PhD, President, Memorial Health System Hospital Group and President & CEO, Memorial Medical Center
- Greg Jensen, LCSW, Administrative Director, NSI/SIU School of Medicine
- Lisa Price, Assistant to the Chair of Surgery, SIU School of Medicine

10.2 Number of Meetings (In This Year) 4- Steering Committee

11. Annual Performance

11.1 Performance Measures *

Measure	Target FY21	Results in FY20
1. Patient Encounters – Visits	60,000	58,328
2. Total Patients Served – Unduplicated Count	15,900	15,345
3. New Patients Served – Unduplicated Count	3,100	3,016
4.		
5.		

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, and public service activities.

11.2 Major Accomplishments (In This Year)

The SIU Neuroscience Institute continued to mature during FY2020 by successfully recruiting a Center for Alzheimer's Research and Treatment (CARE) Director, completing an external program review of CARE, continued expansion and integration of Behavioral Health services in the region, maturing the institute's internal operational and financial framework, implementing multidisciplinary clinics that improved patient experience, furthering the research and academic missions of the NSI and successfully recruiting faculty to the NSI. These efforts have advanced the SIU Neuroscience Institute. Department specific and overall NSI accomplishments include:

Neurology:

- Developed strategic directions for the Center for Alzheimer's Research and Treatment with a greater emphasis on research, patient care and community outreach
- Implemented an ECHO (Extension for Community Healthcare Outcomes) training community-based primary care providers to treat patients with Alzheimer's and related memory disorders
- Completed 4 new Faculty recruitments
- In conjunction with Memorial Medical Center, continued to support a Level 3 Comprehensive Epilepsy Program from the National Association of Epilepsy Centers.
- In conjunction with Memorial Medical Center, provided much of the physician support for the JCAHO credentialed Comprehensive Stroke Center.
- Implemented a multidisciplinary clinic for patients with movement disorders including neurology, neurosurgery, psychiatry, neuropsychology, occupational, physical and speech therapies.
- Continued to mature epilepsy and spine multidisciplinary clinics
- Began planning for Heart/Brain and Alzheimer's/Memory D/O multidisciplinary clinics
- Continued to mature multidisciplinary programs in Epilepsy, Deep Brain Stimulation and Brain Tumors with additional providers, streamlined operations and community education.
- Furthered the academic mission through 33 investigator initiated studies, 17 sponsored clinical trials, 7 grants, 22 peer reviewed publications and 3 book chapters
- Appointed new CADRD Director
- Received 2 supplemental grants from the National Institute of Aging
- Started an outpatient program in Physical Medicine and Rehabilitation for musculoskeletal pain, spasticity, mild traumatic brain injury and non-operative sports medicine
- Incorporated the SIU FQHC into the spine multidisciplinary clinic

Psychiatry:

- Continued integrated clinics at SIU pediatrics, family medicine and Memorial Behavioral Health by increasing the number of providers, starting an open access/walk-in clinic to better address needs of people with severe and persistent mental illness, and expanding services to Carbondale
- Expanded NSI Multidisciplinary Clinics to include a DBS pre-surgical evaluation clinic with psychiatric and neuropsychological assessments
- Began planning for a NSI Multidisciplinary Memory Disorders Clinic
- Continued NSI Multidisciplinary Clinic Epilepsy Surgery Evaluation
- Collaboration with St. Mary's Hospital (SMH) leadership to initiate planning for phase 2 which includes psychiatry staffing the adult and geriatric inpatient services

- Completed 5 new Faculty recruitments in addition to 1 LCSW, and 3 Psychiatric Nurse Practitioners
- Provide a new practice at Jacksonville, Illinois by absorbing the Center for Psychiatric Health in collaboration with Passavant Hospital
- Continued to serve as Behavioral Health Director for the Illinois Department of Health and Family Services (HFS)
- Continued project ECHO (Extension for Community Healthcare Outcomes) designed to train community-based primary care providers to treat patients with Opioid Use Disorders (OUD) using medication assisted treatment (MAT) guidelines
- Worked with leaders across the criminal justice system (through a MacArthur Foundation Grant) to create a system for jail diversion (where appropriate) for people with mental illness and/or substance abuse
- Implemented a psychiatry clinic at Milliken University
- Implemented an Esketamine clinic to treat patients with refractory depression
- Redesigned clinic operations to dramatically increase access to psychiatric care in Sangamon County
- Dramatically increased telepsychiatry and teletherapy services to improve access to psychiatric and therapeutic care
- Began clinic within a specialized school for children with autism
- Provide phone consultation clinic to rural primary care clinic
- Furthered the academic and research mission through 20 investigator initiated studies, 4 industry sponsored clinical trials, 4 grants, 7 peer reviewed publications and 60 book chapters as well as 8 presentations at National Meetings, including one Keynote presentation
- Continued work providing testimony and guidance to State Committees and State Administrative Departments related to telehealth, mental health workforce, mental health stigma, mental health access, and health equity.

Neurosurgery:

- Continued building Neurosurgery's Residency Program by recruiting a Resident in 2020.
- Collaborated with Memorial Medical Center to implement and expand the Deep Brain Stimulation program at MMC, in addition to the pre-existing program at St John's Hospital.
- Expanded the Comprehensive Epilepsy Program by adding new neurosurgical capabilities, including stereoelectroencephalography (SEEG), incorporating the ROSA Surgical Robot and deep brain stimulation of the anterior nucleus of the thalamus.
- Continuing the Neurosurgery's Residency Program by graduating our first Resident in June 2021 and recruiting new Residents
- Recruiting new Neurosurgery Faculty Members
- Furthered the academic and research mission through investigator initiated studies, industry sponsored clinical trial, grants and peer reviewed publications

Neuroscience Institute (NSI):

- Continued multidisciplinary clinics for epilepsy, movement disorders, Heart/Brain and spine
- Initiated planning for Alzheimer's/Memory and Pain Management Clinics
- Developed strategic directions for Center for Alzheimer's Research and Treatment (CARE)
- Completed a national search and successfully recruited a Director for CARE
- Initiated rapid telehealth services to maintain patient access during COVID-19 pandemic

- Ended FY20 with a positive operating margin, the second time since the formation of the NSI in 2015.
- Completed a formal external and internal program review of the Center for Alzheimer’s Disease and Related disorders (CADRD) required by the Illinois Board of Higher Education (IBHE) identifying strengths and opportunities for improvement and renamed to the Center for Alzheimer’s Research and Treatment (CARE) reflecting increased emphasis on the research activities associated with Alzheimer’s Disease.
- Increased focus on the Parkinson’s disease Center with the advent of a fellowship trained movement disorder specialist.
- Initiated planning for a Movement Disorder Fellowship
- Initiated discussions to absorb neurology and neurosurgery practices from Decatur Memorial Hospital into the NSI
- Implemented a consolidated annual report describing the scholarly activities of the Institute’s Departments

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

The SIU Neuroscience Institute supports priorities of the university, the medical school, and the State of Illinois. SIU Carbondale’s focus statement notes that the university “strives to meet the health care needs of central and southern Illinois through appropriate health-related programs (and) services ...” and “develops partnerships with communities (and) businesses” The NSI addresses both of these by providing community-based patient care services in demand by the people of the region. The institute also supports SIU Carbondale’s priorities for community service and collaboration, as noted in the *Pathways for Excellence: A Strategic Plan* document. The SIU Board of Trustees’ strategic priorities include those to “extend the external presence and relationships of the system to aid in the development of innovative approaches to address Illinois’ problems relating to education, health care ...” and to “streamline for efficiency and cost-savings to ensure financial stability, encouraging productive, mutually beneficial collaborations across system campuses and locations” The NSI provides innovative, streamlined approach to health care through the consolidation of clinical and research services related to diseases of the nervous system. This improves patient accessibility to services, patient care and safety, and operational efficiency and effectiveness through the consolidation of administrative positions and functions across the NSI’s departments and divisions. Longstanding university priorities call for programs to contribute to workforce development, stronger health care and social welfare systems, and increased cooperation among health programs and the community. The NSI advances each of these priorities.

The NSI supports various elements of the medical school’s strategic plan, particularly its priority for clinical practice, health of the population and community service. Through its individual academic divisions and departments and its combined clinical and research operations, the NSI addresses and enhances the major strategic priorities within the SIU School of Medicine, including strategies associated with: educating future physicians; attracting, progressing and retaining a diverse faculty; developing innovative teaching methods for students and residents; expanding research studies, initiatives and collaborations across the institution; providing accessible and quality health care; establishing relationships with various health care and other

community entities within the region and the state; and enhancing the brand that is SIU Medicine.

The NSI also directly advances the *Illinois Public Agenda* goals for economic growth and workforce development. Economic growth is advanced through this program's ability to address patient needs related to neurological and mental health disorders in the region. This provides an important professional service, one that is in demand throughout central and southern Illinois. The institute also provides learning opportunities for medical students, physician assistant students, graduate science students, clinical residents and fellows and other allied health professions in the neurosciences. This improves the state's workforce of these important professionals while enhancing the relevance of the medical school's educational programs.

The SIU Neuroscience Institute advances these complementary goals.

11.4 Evidence of Support for Center/Institute Objectives

In FY 20, the SIU Neuroscience Institute has made progress in achieving its objectives as outlined in 9.3 above. Efforts continue to mature in the areas of consolidating finance and accounting operations for the Departments of Neurology, Psychiatry, PM&R and the Division of Neurosurgery. Patient quality, risk and safety was also advanced by the integration of the Neurology/Psychiatry PSES (Patient Safety Evaluation System) Committee which reviews and discusses all patient safety and quality-related incidents as documented within the Patient Incident Reporting System (SENSOR).

In an effort to improve clinical efficiencies, enhance the patient experience, and achieve cost savings through the attrition of redundancies in clinical support staff, efforts were undertaken by individual departments/divisions and collectively within the NSI as demonstrated in section 11.2 above (major accomplishments).

Lastly, the Institute's clinical, financial, teaching and research missions continued unabated in the face of the worst pandemic in anyone's lifetime.

11.5 Evidence of Organizational Effectiveness

The SIU Neuroscience Institute is justified by the immense burdens for the patients, their families, and society associated with neurological and mental health disorders as well as the potential for developing a truly unique, high-quality, academic medical center-based neurosciences patient care program for Springfield and the region. The aim of the NSI is to facilitate more favorable patient experiences, better patient outcomes, lower costs of patient care, and enhanced value to patients and the communities of central and southern Illinois, particularly in the Springfield area. The community supports the NSI's mission and vision for patient care. This is expected to continue as the NSI develops.

RESOURCES: SIU Neuroscience Institute

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016
Revenues					
State Appropriations	0	0	0	0	0
Income Fund	0	0	0	0	0
Grants & Contracts	0	0	0	0	0
Patient Care Revenues	8,679,930	8,862,475	6,371,042	6,156,008	6,465,387
Non-Patient Care Revenues ¹	1,335,741	1,017,762	839,266	833,601	721,894
Ancillary Revenue ¹	0	0	604,410	484,453	436,988
Accumulated Balance ²	0	0	0	0	0
Total Revenues	10,015,671	9,880,240	7,814,718	7,869,682	7,851,407
Expenditures³					
Department Overhead	1,549,796	1,221,411	1,148,631	1,219,579	1,218,574
Space Costs	863,013	873,753	1,173,353	1,022,811	946,305
Malpractice Insurance	638,359	834,940	691,615	615,455	604,616
Other Direct Expenses	974,991	1,034,325	226,755	135,541	122,920
Academic Support Expenses	926,702	930,661	872,767	853,583	904,495
Provider Compensation	2,895,102	2,826,743	2,724,408	2,643,180	2,592,356
SIU MED Overhead	977,626	978,601	998,485	1,008,793	1,048,736
Ancillary Expenses	932,131	541,549	504,579	370,740	413,405
Total Expenditures	9,757,723	9,241,983	8,340,593	7,869,682	7,851,407
Revenue Minus Expenditures	257,948	638,257	(525,875)	(395,620)	(227,138)

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

1. Non-Patient Care Revenues are defined as income derived from affiliated hospital agreements and community outreach contracts. Ancillary Revenue is income derived from operations that support and enhance the overall patient care experience such as imaging, labs, rehabilitation, and other special procedures.
2. No accumulated balance is forwarded from year to year. Each year is managed and any deficit or surplus does not accrue to the NSI but are managed through SIU's practice plan, SIU Healthcare.
3. Department Overhead expenses include primarily salary expenses for staff directly involved in supporting patient care activities, such as front desk reception staff, call center, nursing and medical assistant, medical records, etc. Provider Compensation is physician compensation from patient service. SIU Medicine Overhead expenditures include costs of support services provided by SIU Medicine including support for information technology, credentialing and managed care, patient business services, and quality, risk and safety programs.

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	39	36	37	26	30.3
Staff	96	81	74	65	79.6
Total Staffing	135	117	111	110	109.9

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	Southern Illinois University Carbondale						
2.	Center/Institute	Office of Innovation & Economic Development/Research Park						
3.	Date	March 19, 2021						
4.	Director	Lynn Andersen Lindberg, Interim Executive Director						
4.1	Telephone	618.453.6754						
4.2	E-mail	LINDBERG@SIU.EDU						
5.	Year Established	1986 Innovation & Economic Development; 2001 Research Park						
6.	Illinois State Statute (if pertinent)	N/A						
7.	Reporting Unit	OIED reports to the Office of the Chancellor; Research Park is a university-related organization						
8.	Type	<p>Activity (check all that apply)</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="padding: 2px 10px;">Instructional</td> <td style="text-align: center; padding: 2px 10px;">X</td> </tr> <tr> <td style="padding: 2px 10px;">Research</td> <td style="text-align: center; padding: 2px 10px;">X</td> </tr> <tr> <td style="padding: 2px 10px;">Public Service</td> <td style="text-align: center; padding: 2px 10px;">X</td> </tr> </table>	Instructional	X	Research	X	Public Service	X
Instructional	X							
Research	X							
Public Service	X							

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

The Office of Innovation and Economic Development (OIED) is an umbrella organization for business and economic development activities within the University. This includes the Illinois Small Business Development Center at SIU, Illinois Procurement Technical Assistance Center at SIU, Business Incubator Programs, Saluki Ventures student business incubator, Saluki Innovation Lab, Illinois Manufacturing Excellence Center, Center for Delta Studies, Center for Innovation, Office of Workforce Innovation and Research, Illinois Nurse Aide Testing program, University Innovation Fellows.

The SIU Research Park, a separate, university-related organization, is also directed through this office.

The Illinois Manufacturing Excellence Center (IMEC) is an Illinois non-profit corporation with four higher education partners within the State of Illinois. SIU Carbondale is one of those partners. At present, seven IMEC staff are SIU employees.

9.2 Mission

OIED & SIU Research Park Mission: To establish and support an environment to foster innovation, commercialize University discoveries, and advance entrepreneurship and economic development within SIU and throughout the region.

IMEC's Core Purpose: to foster long-term economic and workforce competitiveness and its Mission is committed to driving growth through enterprise excellence.

9.3 Objectives

- * Create an entrepreneurial culture on campus, encompassing both spatial opportunities and programmatic activities
- * Integrate activities within the SIU Research Park with the campus community, ranging from increased traffic, the Saluki Ventures student business incubator, student learning labs, and technology entrepreneurship
- * Optimize business and economic development services for the broader community
- * Become an economic development leader in Southern Illinois and create a regional focus on collaboration among University researchers, regional businesses, and the community

10. Advisory Board

10.1 Advisory Board - Membership

<p>SIU Research Park Board of Directors Curtis Baird, Board Chair (CEO Sure-Response) Gary Williams, Vice Chair (Manager, City of Carbondale) Teresa Katubig, Secretary (CEO, HireLevel, Inc.) John Dosier, Treasurer (President, First Southern Bank) Duane Stucky (Senior Vice President and Board Treasurer, SIU) Austin Lane (Chancellor, SIU Carbondale) Meera Komarraju (Provost and Vice Chancellor, SIU Carbondale) Gary Kinsel (Vice Chancellor for Research, SIU Carbondale) Rex Budde (CEO, Southern Illinois Healthcare) Curt Jones (Founder 40 Below Joe) Angela Povolish (Partner, FMGR Law Firm) Donald Gulley (CEO, Southern Illinois Power Cooperative)</p> <p>SBDC Advisory Board Darren Berger, Business Development Specialist, Bank of Carbondale Bryan Black, Owner, VMC Emily Burke, Manager, Walker’s Bluff Casino Shane Carsrud, Assistant Market Executive, Banterra Bank David Cook, Owner, Allied Automotive Tom Harness, Owner, Harness Digital Marketing Chris Howton, Senior Vice President/SBA Specialist, People’s Bank Curt Jones, Founder, 40 Below Joe Rick Linton, Economic Development Director, West Frankfort Economic Development Chris Martin, Economic Development Director, Chester Economic Development Mary Mechler, Advisor, Illinois Manufacturing Excellence Center Lee Messersmith, Owner Cycle 1 Cycling Studio Amy Mills, Owner, 17th Street BBQ Steven Mitchell, Economic Development Director, City of Carbondale Harriet Mize, Director, Carterville Chamber Les & Christine O’Dell, Owners, 2 Bugs and a Bean Jennifer Olson, Manager, Greater Egypt Regional Planning & Development Corporation Robyn Laur Russell, Executive Director, Champion Community Investments Nic Skovgaard, Owner, AlterEgo Marketing & Jackson CEO facilitator</p>

10.2 Number of Meetings (In This Year) Research Park – 2; SBDC - 1

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. Total clients (SBDC & PTAC)	335	696
2. Total business counseling hours (SBDC & PTAC)	2,925	2,920
3. Total jobs created—technical assistance (SBDC & PTAC)	80	67
4. Total jobs retained—technical assistance (SBDC & PTAC)	95	434
5. Number of business start-ups (SBDC)	21	28
6. Number of business expansions/acquisitions (SBDC)	10	5
7. Amount of loans secured for clients (SBDC)	\$3,500,000	\$15,000,000
8. Amount of equity secured for clients (SBDC)	\$1,400,000	\$1,394,279
9. Companies assisted (IMEC)		1,114
10. New and retained sales per project (IMEC)		\$1,565,873
11. Cost savings per project (IMEC)		\$79,640
12. Jobs created and retained (IMEC)		\$6,176
13. Aggregate impact (IMEC)		\$646,455,000
14. Virtual training programs (IMEC)		148
15. Manufacturing needs assessments (IMEC)		1,295
16. Entrepreneurs-in-Residence engaged		2
17. Number of training events (SBDC & PTAC)	24	83
18. Number of training participants (SBDC & PTAC)	480	1,569

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

11.2 Major Accomplishments (In This Year)

<ul style="list-style-type: none"> * Completed first year of operations of the PTAC, offering assistance in local, state, and federal government contracting opportunities * Increased incubator capacity from 35% to nearly 90% * Offered three cohorts of Innova*Ship technology entrepreneurship and innovation program with 53 participants completing the program, 50% female, and 64% science/tech-based * Two student innovators selected in the Top 20 for the Global CEO Conference Pitch Competition * Completed renovation of the Center for Innovation, a new creative space where collaborative thinking and problem solving are emphasized; space for 72 interactive participants * Supported eight new University Innovation Fellows and linked them with seven Fellows remaining on campus from the prior year's cohort * Pivoted from in-person CNA exams at multiple sites across Illinois to proctored online tests immediately upon Illinois' "shut down" in response to IDPH request * Administered nearly 15,000 certification exams across Illinois despite restrictions imposed by the COVID-19 pandemic
--

- * Generated nearly \$1 million in testing revenue for Nurse Aide Testing
- * Continued to sell online training and registration to Direct Support Person project in conjunction with the IDHS
- * Worked on specialized research projects with the Southern Illinois Airport, the Northwest Connector project, the City of Carbondale, the Illinois Innovation Network iFERM Hub, and SI Now
- * Served as the business development interface with the Office of Technology Transfer
- * Provided assistance to southern Illinois high school CEO programs, promoting retention of youth entrepreneurs, through a variety of workshops and in-person activities
- * Continued collaborative relationships with other economic development agencies including local governments, chambers of commerce, regional planning agencies, educational institutions, and healthcare organizations

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

Goal 4 of the Illinois Public Agenda is to better integrate Illinois' educational, research, and innovation assets to meet economic needs of the state and its regions. OIED supports this goal and it is evident through entrepreneurial training, innovation education, its business interface with technology transfer, and the creation of an overall culture of entrepreneurship and innovation on campus and in the region. Removing barriers to entrepreneurship and innovation are at the heart of what OIED does day in and day out.

Dr. Deborah Barnett, associated director of the SIU Research Park, co-chaired the Economic/Community Impact SIU System Working Group as part of the SIU System's strategic planning process. The group was charged with identifying ways that the three campuses can pool resources to address the needs of the larger service region.

OIED continues to be part of the team that drives innovation and entrepreneurship on campus, as recognized by the Carnegie Foundation designation as a Community Engagement Institution. The Association of Public and Land-grant Universities has also designated SIU as an innovation and Economic Prosperity campus Both designations demonstrate evidence of the University's goal of enhancing our value to and our collaboration with the broader community in our mutual goals of research translation, workforce education, and economic development. Ms. Lynn Andersen Lindberg serves as the co-delegate to the APLU for this activity.

SIU plays a prominent role in the vitality and stewardship of the economy and culture of our region by: maintaining the positive symbiosis with the community and region; maintaining the positive relationship through time, energy, and resources; and serving as leaders and resource providers as appropriate. As a new strategic plan is developed from the Chancellor's Listening Tour, it is anticipated that OIED will continue to play an important role in business, economic, and community development throughout the region.

11.4 Evidence of Support for Center/Institute Objectives

The Office of Innovation and Economic Development and “The Center” are one in the same. Examples of support for objectives enumerated above follow.

- Create an entrepreneurial culture on campus—The Saluki Ventures student incubator program was expanded to include student organizations that focus on entrepreneurship and provide services to businesses; the University Innovation Fellows program was expanded and began offering innovation and entrepreneurship workshops in addition to their individual projects for campus; the Saluki Entrepreneur Corps expanded its activities to include online workshops and podcasts
- Integrate activities within the SIU Research Park with the campus community—Innova*Ship offered technology entrepreneurship to faculty, staff, students, and community researchers and scientists interested in starting or expanding their technology-based businesses
- Optimize economic development services for the broader community—offered procurement assistance services to regional businesses interested in government contracting; surveyed the five-county business community to determine the impact of COVID-19 on businesses and developed new services to meet these dramatically different needs; pivoted to offer online business advising and workshops when Illinois issued a “stay at home” order in spring 2020
- Become an economic development leader in Southern Illinois—started or completed in-depth research projects with the Southern Illinois Airport, Northwest Connector Taskforce, and Bridge to the Future; brought together University researchers, regional businesses, and other organizations to support the development of the iFERM Hub, a part of the Illinois Innovation Network

11.5 Evidence of Organizational Effectiveness

On top of losing more than one-fourth of its funding during the Illinois budget crisis, OIED and the Research Park lost the budget support for a full-time senior professional during FY20. The staff have continued to provide high quality, impactful services throughout the campus and region despite these dramatic funding losses. The team pulled together in a variety of ways during the beginning of the pandemic to look for opportunities to not only continue to serve clients, tenants, and community members but to meet their rapidly-changing needs. Staff continue to serve on various boards, committees, and working groups and provide leadership in many of these activities. The organizational effectiveness of OIED and the Research Park are built upon the foundation of providing services and resources that are needed and have impact. These successes are evidenced through the metrics provided above.

RESOURCES: Office of Innovation & Economic Development

Financial Resources	FY2020**	FY2019	FY2018	FY2017	FY2016
Revenues					
State Appropriations	\$379,370	\$386,651	\$327,874	\$317,423	\$489,386
Income Fund	196,470	91,197	7,608	11,175	65,368
Grants & Contracts	2,282,524	1,495,095	1,609,976	1,527,492	1,738,361
SBDC Generated Income	700	2,333	926	1,700	1,700
Online Course Revenue**	117,250				
Total Revenues	\$2,976,314	\$1,975,276	\$1,946,384	\$1,857,790	\$1,294,660
Expenditures*					
Salaries/Wages & Benefits	\$2,133,956	\$1,704,085	\$1,697,231	\$1,584,167	\$1,846,574
Building Maintenance	24,898	13,465	26,735	3,568	1,966
Internal Roof Loan	0	0	12,026	12,026	12,026
Contractual	345,452	104,112	125,979	41,885	93,044
Supplies & Commodities	31,643	10,968	18,880	16,193	19,503
Miscellaneous	597,251	158,813	177,839	59,872	185,968
Total Expenditures	\$3,133,200	\$1,991,443	\$2,058,690	\$1,717,711	\$2,159,081
Revenue Minus Expenditures	-\$156,886	-\$16,167	-\$112,306	\$140,079	\$135,579

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

** Because of COVID-19 in March 2020 and a change in accounting systems for the OWIR when it became part of this unit during FY2019, the FY2019 numbers do not reflect this program's financial resources; hence, FY2020 appears to be a larger increase than it actually is

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	0	0	0	0	0
Staff	21	22	18	16	18
Total Staffing	21	22	18	16	18

RESOURCES: SIU Research Park

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016
Revenues					
State Appropriations	\$0	\$0	\$0	\$0	\$0
Income Fund	0	0	0	0	0
Grants & Contracts	255,295	252,036	204,218	235,111	287,962
Budget Allocation from SIU	98,556	99,233	123,766	131,648	119,621
Interest Income	1,851	1,139	734	649	872
Award Income	40,000				
Total Revenues	\$395,702	\$352,406	328,718	367,408	410,455
Expenditures*					
Budget Expended at SIU	\$98,556	\$99,233	\$123,766	\$131,648	\$119,621
Management and General	255,456	246,984	251,948	259,438	264,618
Depreciation	12,046	12,046	13,503	28,457	43,122
Total Expenditures	\$366,058	\$358,263	389,217	419,543	\$427,361
Revenue Minus Expenditures	\$29,644	\$-5,855	\$-60,499	\$-52,135	\$6,203

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	0	0	0	0	0
Staff	1	1	1	1	1
Total Staffing	1	1	1	1	1

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	<u>Southern Illinois University Carbondale</u>
2.	Center/Institute	<u>Paul Simon Public Policy Institute</u>
3.	Date	<u>03/17/2021</u>
4.	Director	<u>John Shaw</u>
4.1	Telephone	<u>618-453-4003</u>
4.2	E-mail	<u>john.shaw@siu.edu</u>
5.	Year Established	<u>Approved 1996, opened 1997</u>
6.	Illinois State Statute (if pertinent)	<u>(N/A)</u>
7.	Reporting Unit	<u>Provost & Vice Chancellor for Academic Affairs</u>
8.	Type	Activity (check all that apply)
	Instructional	<input checked="" type="checkbox"/>
	Research	<input checked="" type="checkbox"/>
	Public Service	<input checked="" type="checkbox"/>

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

The Paul Simon Public Policy Institute was opened in January 1997 in order to fulfill the following overarching objective summarized in the New and Expanded Program Request (NEPR) approved by the Illinois Board of Higher Education at the Institute's founding in 1996.

"The guiding principle of the Institute will be the premise that rational scholarly analysis contributes to the making of more effective and more efficient public policy and contributes to elevating the level of public discourse in this country "(NEPR, 1996, 2).

9.2 Mission

The Institute's mission statement is as follows:

The Paul Simon Public Policy Institute acts on significant and controversial issues impacting the region, the state, the nation, and the world. The Institute is committed to developing and working to implement approaches that bring concrete, positive results in tackling some of the most difficult challenges in the public policy arena.

The Institute focuses its efforts on fostering:

- * Ethical conduct in government.
- * Opportunity and fair treatment for citizens in America and throughout the world.
- * Promoting responsible citizenship for all Americans- but particularly for young Americans.

9.3 Objectives

The Institute executes its mission by working on a variety of specific annual objectives. Those include:

- Working on our "Better Politics, Smarter Government" Agenda, which includes the following areas: Town Hall Meetings Initiative, Renewing Illinois Summit for Illinois university students, and Restoring American Statesmanship.
- Conducting a public opinion poll, the Simon Poll™, to inform decision makers and citizens.
- Analyzing public policy through academic papers and publishing The Simon Review.
- Providing and supervising paid internships and other learning opportunities for university students.
- Hosting lectures and conferences with noted leaders in public policy, journalism and other fields, both in person and virtually.
- Providing leadership and civic education programs for high school students.

10. Advisory Board

10.1 Advisory Board - Membership

The Board of Counselors are:

Reilly Bowler (Simon family)
 Nancy Chen (member at-large)
 Ross Glickman (State Democratic Party appointment)
 Meera Komaraju (*ex officio* member, SIU Carbondale Provost)
 Bill Norwood (member at-large)
 Vicki Otten (member at-large)
 Howard Peters (member at-large)
 Rae Goldsmith (*ex officio* member, Interim Vice Chancellor for Development & Alumni Relations)
 Martin Simon (Simon family) - Chair of the Board
 Lucy Sloan (member at-large)
 John Trasviña (member at-large)
 Lance Trover (State Republican Party appointment)
 Paula Wolff (member at-large)
 David Yepsen (previous past director)
 Vacant (member at-large)
 Vacant (member at-large)

10.2 Number of Meetings (In This Year) 1 meeting per year

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. Simon Poll TM	1	1 Poll Conducted
2. The Simon Review (Published Papers)		1 papers
3. Public Events		18 events
4. Internships Filled	8	5 internships filled
5. Graduate Assistants funded	2	2 positions filled

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, and public service activities.

11.2 Major Accomplishments (In This Year)

- We held 18 events in a wide variety of topics that were free and open to the public, both in person and online. These events included one town hall, two Pizza & Politics, an event in the Kroening Lecture series, and a Morton-Kenney Lecture series event. We also hosted eight events in our new virtual series titled Understand Our New World.
- Conducted 1 statewide Simon Poll™ in the spring. Our findings were picked up through numerous statewide media outlets (television, radio and print), plus staff was interviewed for several stories for our expertise on the findings.
- We published one academic Simon Review paper regarding public opinion in Illinois from 2008 to 2019. All papers are made available via OpenSIU. The monthly download count shows that these papers are widely used by scholars and practitioners.
- We placed four interns in Springfield for the spring 2020 legislative session, plus had one intern serving in a local Carbondale office and a social work intern within the Institute.
- We completed our search for the Institute's new assistant director in July 2019 with the hiring of Shannon Schroeder.
- We continued successful fundraising efforts for our 26 Foundation accounts.
- Awarded the Jean Hurley Simon Memorial Scholarship, Barbara Brown Memorial Scholarship, Edwin D. Philips Debate Team Scholarship, Mike Lawrence Scholarship, and David Yepsen Scholarship to SIU students.

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

While PSPPI does not directly generate credit hours by offering formal classroom instruction, virtually all facets of the Institute's mission and activities support Goals 1-4 of the Illinois Public Agenda either directly or indirectly. Our guiding principal is "the premise that rational scholarly analysis contributes to the making of more effective and more efficient public policy and contributes to elevating the level of public discourse in this country." We focus on public policy and encourage university students, faculty and staff to be more engaged in the political discussion and analysis of public policy. We have organized and sponsored conferences on college affordability, the funding of K-12 education, the necessity of workforce development and the healthcare system in Illinois.

We also seek to engage and teach the mass media and K-12 teachers and students in that conversation. We value and emphasize the importance of public service. We especially seek to encourage university students to enter careers in public service and through our paid internships we get them invaluable on-the-job training. Many of our former interns are now pursuing productive careers in local, state and national government jobs, as well as a variety of non-profit organizations.

We have launched three initiatives in our "Better Politics, Smarter Government" theme. Our Renewing Illinois summit initiative was launched with a conference in March 2019. We had to cancel our spring 2020 conference due to the pandemic but we created a booklet outlining the theme of "One Illinois: Nobel Aspiration or Impossible Dream." We also developed a set of best practices for town hall meetings and sent these practices to the Illinois Congressional

delegation. We invited speakers to campus and virtually to discuss statesmanship in Illinois and the United States.

The statewide polling informs the public and the media about important dimensions of public opinion regarding key policy and political questions. Our published papers focus on significant issues of public policy and politics. The papers are used and cited across the state, nation, and globe. We constantly stress the need for higher education and university-based research to make Illinois more competitive in an increasingly interdependent global economy.

11.4 Evidence of Support for Center/Institute Objectives

We continue to see donors supporting the Institute's mission and objectives as we are remembered in donations throughout the year, annual giving gifts and planned estate gifts.

We continue to see large attendance turnouts at our events, averaging approximately 100 people on any given event. These audiences include students, faculty, and staff from SIU, area K-12 students and teachers, interested citizens and a range of media outlets. We ask our audience to complete feedback cards or virtual surveys to continually tweak and adjust for future events.

Our *Simon Review* papers are widely downloaded. In this year alone, we had over 212 unique downloads. There have been over 32,000 downloads of these papers by users from the across the nation and throughout the world since the series was started in 2004.

Our polls are widely used and cited when they are released.

Our policy experts are in much demand for interviews with the media. Our policy experts, John Shaw, John Jackson, Linda Baker, and Charles Leonard were interviewed during this past fiscal year in *The New York Times*, *Wall Street Journal*, *The Washington Post*, *Newsweek*, *Politico*, *NPR*, *the Chicago Tribune*, *The Chicago Sun Times*, *The St. Louis Post-Dispatch*, *The Southern Illinoisan* and a wide variety of other outlets. Our staff also worked with *WSIU* for radio and television segments, *C-SPAN*, and appeared frequently on *WSIL*, *KFVS*, and *WPSD* television.

11.5 Evidence of Organizational Effectiveness

We continue to successfully place SIU undergraduate students in the state capitol in a variety of offices as interns during the spring legislative session. These interns are supervised by Dr. Linda Baker. We also continue to place Demuzio interns in local government offices in Southern Illinois. These interns are supervised by Dr. John Jackson.

We continued our partnership with the Celia M. Howard Foundation which now provides a fellowship via the Institute for two graduate students. They have been so impressed by the work our past and current fellow holders that they decided to offer more fellowship opportunities via the Institute. Therefore, they have increased their support now to two fully funded (\$20,000 each) fellowships.

We continued our long term agreement with the McCormick Foundation to offer conferences for area K-12 educations on civic engagement and best practices on teaching methods in their fields.

Our supporters donated over \$5,200 for SIU's fourth annual Day of Giving.

12. Institutional Assessment

12.1	Date of Last Review	<u>FY19</u>
12.2	Decision at Last Review	<input checked="" type="checkbox"/> Center/Institute in Good Standing <input type="checkbox"/> Center/Institute Flagged for Priority Review <input type="checkbox"/> Center/Institute Suspended
12.3	Explanation	(briefly provide any explanation necessary of the institutional assessment or plans for pending program review) <u>N/A</u>

RESOURCES: Paul Simon Public Policy Institute

- See attached sheet for FY20 and past fiscal years.

Financial Resources Revenues	FY2020	FY2019	FY2018	FY2017	FY2016
State Appropriations	\$378,717.84	\$346,075.17			
Budget Reduction					
Budget Increase	\$5,351.52	\$9,586.03			
Ending Budget	\$384,069.36	\$355,661.20			
Income Fund					
Grants & Contracts					
Endowment Accounts	\$224,191.45				
Overhead Recovery					
Total Revenues	\$608,260.81				
Expenditures*					
Salaries – Staff/Faculty	\$383,875.78	\$355,661.02			
Graduate Assistants/Student Wages	\$8,969.17	\$18,372.37			
Travel		\$368.68			
Commodities	\$1,091.83	\$1,996.04			
Contractual Services	\$8,626.87	\$9,445.68			
Telecommunications	\$3,094.47	\$2,421.19			
Fringe Benefits		\$3,633.00			
Facilities & Administrative Costs		\$179.00			
Total Expenditures	\$405,658.12	\$392,076.98			
Revenue Minus Expenditures	\$202,602.69				

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	1	1	1		
Staff	4	2.75	3.75		
*We have two half-time graduate assistant to make 1.0. No extra help.					
Total Staffing	5	4.75	5.75		

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	Southern Illinois University School of Medicine
2.	Center/Institute	Simmons Cancer Institute at SIU
3.	Date	January 1 st , 2021
4.	Director	Aziz Khan, M.D.
4.1	Telephone	217-545-7969
4.2	E-mail	akhan@siumed.edu
5.	Year Established	Academic Year 2000
6.	Illinois State Statute (if pertinent)	N/A
7.	Reporting Unit	Southern Illinois University School of Medicine
8.	Type	Activity
		(check all that apply)
	Instructional	X
	Research	X
	Public Service	X

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

The Simmons Cancer Institute at SIU (SCI) is a multi-disciplinary cancer center based in Springfield, IL to serve the population of central and southern Illinois. SCI provides access to state-of-the-art treatment and promising new clinical trials to the residents of central and downstate Illinois. The Institute works collaboratively with local hospitals and other community providers in the region to share technology, broaden research, and raise treatment standards and expands the region's ability to attract research and programmatic funding that builds the infrastructure necessary for sophisticated research programs and excellent patient care. In addition to this, the Institute augments medical student, resident, and graduate student training in cancer/ oncology, and provides patient and physician education across the region.

SCI features a comprehensive approach to patient care organized around organ site care teams (such as that addressing colorectal cancer) which are designed to enhance effective, efficient treatment of the whole person and not just the disease. Modeled on best practices promoted by the National Cancer Institute, these care teams include physicians, nurses, psychologists, social workers, and other specialists, such as pathologists and radiation oncologists, who work together to provide high-quality patient care and complementary therapies to address the patient's needs.

SCI provides a variety of free cancer screenings working in partnership with other health care professionals and organizations. As an ongoing effort to raise awareness and prevention, SCI maintains a strong outreach and referral program, including patient education and health screenings in the community. Physicians and scientists perform cancer related discovery research, applied research and, increasingly, population health research. Cancer clinical trials are available at SCI through the National Community Oncology Research Program, pharmaceutical sponsors and the medical school's physicians' personal research.

The Simmons Cancer Institute is housed in a 63,000 square foot facility on the Springfield clinical campus that was funded in part through state-appropriated capital funds. This facility features an infusion center, nearly three dozen exam rooms, minor procedure facilities, the nationally accredited breast center through the National Accreditation Program for Breast Centers (NAPBC), nationally accredited oncology services through the Quality Oncology Practice Initiative (QOPI), as well as ultrasound, x-ray, ECG, and laboratory services.

9.2 Mission

To serve the people of central and southern Illinois by addressing their present and future cancer care needs through medical education, biomedical research, patient care, and community service.
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9.3 Objectives

Objective Number	Objective Description
1	To markedly reduce the burden of cancer on patients, their families, and the community by using innovative strategies developed from collaborations with researchers and health care workers.
2	To advance knowledge about cancer awareness, prevention, early detection, care and treatment.
3	To provide preventative screenings to promote early detection and treatment.
4	To enhance a population science program in rural areas to assist with cancer prevention.
5	To provide the latest cutting-edge treatment and research that translates new scientific findings into therapies (i.e., bench-to-bedside) so as to improve care to patients regardless of their ability to pay.
6	To develop highly functioning Cancer Care Teams for all major cancers that employ a multidisciplinary approach to comprehensive patient care of the highest quality, and “cutting edge” treatments. Within each working group, establish a mature and relevant translational research program.
7	To develop strategies for pursuing available funding streams from the federal and state governments as well as opportunities for philanthropic donations.
8	To advance our hematology-oncology fellowship program to help address the national shortage of hematology–oncology physicians with a focus of local recruitment and retention.
9	To provide physician dispensed oral cancer treatment therapies to assist with patient treatment and provide convenience for care.
10	To develop a Melanoma Center, complete with new clinic space, as well as collaborative efforts with dermatology, plastic surgery, surgical oncology, medical oncology. Efforts include recruitment of a discovery scientist with a concentration in melanoma or immunology related research.

10. Advisory Board

10.1 Advisory Board – Membership

SCI Executive Committee: provides recommendations to the SCI Executive Director on matters concerning the goals and performance of the institute in accordance with its mission. FY2020 members were:

- Aziz Khan, MD, Executive Director, Simmons Cancer Institute
- Jerry Kruse, MD/MSPH, Dean and Provost, SIU School of Medicine; and CEO SIU Medicine
- John Flack, MD, Professor and Chair, Internal Medicine, SIU School of Medicine
- Michael Neumeister MD, Professor and Chair, Surgery, SIU School of Medicine

SCI Management Committee: established to oversee the strategy and direction of the institute. This committee reviews the SCI's clinical, charitable, educational, research, and community service activities. In FY2018, the members were:

- Amanda Hutton, Health Administrator, Simmons Cancer Institute
- Lori Barker, Business Manager I, Simmons Cancer Institute
- Aziz Khan, MD, Executive Director, Simmons Cancer Institute
- Lisa Price, Director of Administrative Services, Simmons Cancer Institute
- Kathy Robinson, Director of Clinical Research, Simmons Cancer Institute
- Cindy Davidsmeyer, Director of Community Patient Services, Simmons Cancer Institute (retired December 2019)
- Maggie Poteau, Director of Community Patient Services, Simmons Cancer Institute (replaced Cindy Davidsmeyer)

10.2 Number of Meetings (In This Year)

SCI Executive Committee – twelve (12) meetings in FY2020 (meetings are held monthly)

SCI Management Committee – twenty-four (24) meetings in FY2020 (meetings are held twice a month)

11. Annual Performance

11.1 Performance Measures *

Measure		Target for Year	Results in Year
1.	Total Patients Served by SCI – Total Patients Seen	22,037	16,786
2.	Total New Patients Served by SCI – Total New Patients Seen	2,719	3640
3.	Total Infusion Patients Treated by SCI	7300	6993
4.	Clinical Trial Studies – Open Studies (NCORP Studies and SCI Clinical Trials)	125	138
5.	Clinical Trial Participation – NCORP studies and SCI Clinical Trials)	164	202
6.	Cancer-Related Research – Funded Discovery Science and Translational Projects and Non-Clinical Trial IRB regulated Studies.	33	23
7.	Published Articles – Number	90	43
8.	Patient/Community Education Programs – Attendees	2,508	**135
9.	Outreach Programs/Screenings – Attendees	2606	**200

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, and public service activities.

** Due to COVID, many of our outreach and community programs were canceled.

11.2 Major Accomplishments (In This Year)

<p>In FY2020, major accomplishments of the Simmons Cancer Institute included the following:</p> <ul style="list-style-type: none"> • Due to pharmaceutical contracting and reimbursements, SCI decided to change to retail pharmacy from oral dispensing. • Construction of a Hematology/Oncology fellowship office. The space will accommodate 6 Fellows. • Hematology/Oncology Fellowship program officially began July 1, 2019 with 2 Fellows (Dr. Fawwad Zaidi and Dr. Abdul Hannan). • Construction in Clinic A included the addition of 2 new clinic exam rooms, an office for support staff and 4 desk carrels in the MD workroom. This space was necessary for the expansion of GI services. • SCI held its third annual combined Summer Internship Presentation and Donor Appreciation event. Donors who contribute to Denim & Diamonds, fund the paid summer internships for six college undergrads who are interested in cancer research. Each intern gave a 15 minute
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presentation of their research project. The event had 50 in attendance, including faculty, researchers, intern mentors, family members and donors.

- SCI expanded Mammogram Mondays outreach services that includes Springfield, Lincoln, Taylorville, and Hillsboro locations through a Komen grant submitted by the Regional Cancer Partnership and housed at SCI for the past seven years. Six hospitals participate in Mammogram Mondays.
- Dr. Babaian joined SCI in November 2019 with a Tuesday urological oncology clinic.
- COVID pandemic in March 2020 mandated changes in operations. All clinics implemented Telehealth services. This allowed for patients to stay connected with their providers virtually to help ensure patient safety. The pandemic also effected how we work in our clinic areas. SCI implemented a robust remote working schedule for our employees to control how many staff we had on site to help reduce the spread of infection. We reduced in person clinics only allowing 2 providers in clinic at the same time.
- In December 2019, SCI participated in the Men's Health Screenings at Central Lodge #37 which included the following information – blood pressure, PSA, blood glucose, cholesterol and HIV/Hep C.
- SCI participated in the NAACP banquet in February 2020. Medical screening of blood pressure and FIT kit distribution was organized.
- Due to COVID, many of the spring health fairs and screening were canceled. This included the Hillsboro skin cancer screening and FIT kit distribution.

These accomplishments were in addition to ongoing patient care, research, educational, and outreach efforts performed by SCI in FY2020.

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

The Simmons Cancer Institute directly supports key priorities of the State of Illinois, Southern Illinois University, and SIU School of Medicine, particularly those associated with community service as expressed through patient care and outreach, workforce development, collaboration with community partners, and research and scholarship.

SCI's educational and research activities support the Illinois Public Agenda goal calling for educational, research, and innovation assets to be used in advancing the economic needs of the state and region. The institute's grant funded research and resident education programs are examples. Southern Illinois University system priorities, as outlined by the SIU Board of Trustees, include the call for innovation, the addressing of health care needs in the region, and the formation of partnerships with public and private entities to increase the university's outreach into the community. SCI's patient care, clinical trials, and community education and screening programs advance these priorities. SIU Carbondale's strategic plan calls for research, scholarly and creative activities that benefit the community. SCI's basic and applied research programs and its emerging work in population health science research directly support these priorities. SIU School of Medicine's strategic plan calls for clinical practice, workforce development, research, and professional engagement. SCI's clinical practice, research, and community engagement activities support the school's priorities as well.

11.4 Evidence of Support for Center/Institute Objectives

In FY2020, the Simmons Cancer Institute advanced its primary objectives of becoming the premier comprehensive cancer center for rural Illinois; enhancing research regarding the causes and treatments of cancer; and partnering with other health care, community, and educational organizations to reduce the burden of cancer on patients, their families, and the community. Significant achievements in this program year include the following:

- Provided high-quality direct patient care to cancer patients.
- SCI awarded six (6) Summer Internships to local college students to work with research mentors.
- One (1) Team Science Grant Awarded.
- Partnered with the SIU Office of Population Science and Policy to further oncology-based population research. Two faculty hired with funds to work directly in cancer related fields. We hold monthly meetings to further develop population based grants and programs in cancer.
- Established partnerships and relationships with local communities to promote health fairs, cancer screenings, and disease management to address high-risk populations in central and southern Illinois.
- In 2020 Clinical Trials office continues to expanded services to include multi-center clinical trial management.
- Establishing implementation of a Melanoma Clinic and recruitment of Faculty for promotion of melanoma research. A recruiter was hired to successfully recruit a PhD of Epidemiology through the Cancer Institute and Foundation funding.

11.5 Evidence of Organizational Effectiveness

The Simmons Cancer Institute is effective as an organization. As noted in the university's most recent program review, the institute has established excellent patient care, research, and community outreach programs which support the priorities of the state, university, and medical school. The SCI has expanded grant funding and maintained its state support during difficult economic times. This is evidence of its ability to attract key resources and demonstrates support for the institute by key constituencies. The SCI is meeting its organizational objectives and the expectations of the community, university, and state; it is positioned to prosper in the future.

12. Institutional Assessment

12.1	Date of Last Review	2018-Self Study
<hr/>		
12.2	Decision at Last Review	X Center/Institute in Good Standing
		<hr/> Center/Institute Flagged for Priority Review
		<hr/> Center/Institute Suspended
12.3	Explanation	<hr/> N/A
<hr/>		

RESOURCES: Simmons Cancer Institute at SIU

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016
Revenues					
State Appropriations ¹	1,973,519	\$1,955,817	1,965,919	2,110,528	668,771
Income Fund	0	0	0	0	0
Grants & Contracts ²	26,169	26,551	24,192	13,822	39,384
Grants & Contracts– Other ³	248,675	294,457	295,427	247,977	123,488
Accumulated Balance ⁴	0	0	0	0	35,155
Transfers from SOM ⁵	0	0	0	0	1,445,105
Total Revenues	2,248,363	2,276,825	2,285,538	2,372,327	2,311,903
Expenditures					
Salaries	1,377,990	\$1,314,119	1,555,044	1,651,033	1,696,941
Travel	473	2,292	1,004	2,773	6,708
Equipment	49,782	73,527	23,658	15,881	26,557
Commodities	8,100	14,853	12,730	76,098	94,404
Contractual Services ⁶	224,506	329,325	354,289	365,055	400,246
Telecommunications	30,364	23,473	23,863	32,643	37,430
Other ⁷	15,503	16,270	21,573	20,670	49,617
Total Expenditures	1,706,718	\$1,773,859	1,992,161	2,164,153	2,311,903
Revenue Minus Expenditures	541,645	\$502,966	293,937	208,174	0

1. State Appropriations include program operating funds first appropriated by the State of Illinois in FY2002 as well as the impact of state budget changes and internal reallocations since that time.

2. Grants and Contracts declined significantly in FY2014, due to discontinuance of the State of Illinois – Excellence in Academic Medicine program funding.
3. Grants and Contracts-Other includes revenue from SIU Foundation grants to SIU School of Medicine for the SCI.
4. Accumulated Balance in this table refers to the amounts of accumulated balance accrued from previous years' activities that were used to cover expenses in the years noted.
5. Transfers from SOM includes fund transfers from the SIU School of Medicine's reserve or general funds to support SCI. FY2016 transfers were necessary as the State of Illinois did not appropriate a full year's appropriation in that year.
6. Contractual Services includes medical services provided to clinical trials patients, external consultant fees, and bond repayment. The FY19 4th quarter bond repayment of \$28,961 did not hit our Report of Transactions until FY20.
7. Other includes indirect costs from clinical trial expenses.

Staffing (Full Time Equivalent)¹	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	4.076	4.3825	5.025	8.09	9.12
Staff ²	55	55	50	11.53	12.11
Total Staffing	59.076	59.3825	55.025	19.62	21.23

1. Staffing (FTE) includes FTEs of those faculty and staff receiving direct salary support from the SCI.
2. Includes 501/504 BPs

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	Southern Illinois University Carbondale						
2.	Center/Institute	STEM Education Research Center						
3.	Date	March 23, 2021						
4.	Director	Harvey Henson						
4.1	Telephone	618-922-1911						
4.2	E-mail	henson@siu.edu						
5.	Year Established	2019 (September 10, 2019)						
6.	Illinois State Statute (if pertinent)	N/A						
7.	Reporting Unit	Office of the Vice Chancellor for Research (as of 03/01/2021)						
8.	Type	<div style="text-align: center;">Activity (check all that apply)</div> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="padding: 2px 10px;">Instructional</td> <td style="width: 40px; height: 15px;"></td> </tr> <tr> <td style="padding: 2px 10px;">Research</td> <td style="width: 40px; height: 15px; text-align: center;">X</td> </tr> <tr> <td style="padding: 2px 10px;">Public Service</td> <td style="width: 40px; height: 15px; text-align: center;">X</td> </tr> </table>	Instructional		Research	X	Public Service	X
Instructional								
Research	X							
Public Service	X							

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

The STEM Education Research Center (SERC) at Southern Illinois University at Carbondale (SIU) is a research and public service unit of Science, Technology, Engineering, and Mathematics (STEM). SERC obtained temporary status on July 1, 2014 and was granted permanent status on September 10, 2019 by the Illinois Board of Higher Education. SERC is a community of faculty, staff, educators, and industry partners working together to prepare the next generation of STEM educators, researchers and professionals. SERC addresses critical issues in STEM education at local, state and national levels through multidisciplinary and integrative strategies in research, education and service. SERC builds regional and state-wide collaborations with other institutions to strategically advance STEM literacy and learning. SERC creates new programs and develops external funding initiatives to support STEM education research and service, to provide professional development for PreK-12 educators, and to improve students' preparation and competency in STEM.

9.2 Mission

The STEM Education Research Center at SIU seeks to organize and sustain a diverse community of faculty and staff to collaboratively prepare the next generation of STEM educators, researchers and professionals and to advance STEM literacy at the local, state and national levels through interdisciplinary and integrative strategies in research, education and service.

9.3 Objectives

1. Develop STEM education and research programs at SIU and support existing programs by obtaining grant and contract funding.
2. Provide professional development, curriculum development, workshops and support for our region's K-12 teachers and administrators.
3. Research and facilitate strategies of teaching aligned to the NGSS and Common Core for improved student and public literacy.
4. Build partnerships with local, state and national stakeholders to advance STEM teaching, learning and research.
5. Build partnerships to improve and implement the Illinois Science Assessment and other state assessments.
6. Collaborate with the SIU community to provide students excellent preparation for advanced programs and professions in STEM.

10. Advisory Board

10.1 Advisory Board - Membership

Internal Board of Advisors

Valerie Rasp, Assistant Dean, College of Agricultural, Life, and Physical Sciences
 Bruce DeRuntz, Professor, School of Applied Engineering and Technology
 Lingguo Bu, Associate Professor, Math Education, School of Education
 Sue Rimmer, Professor Emerita, School of Earth Systems and Sustainability
 Jessica Lynn Suda, Assistant Professor, College of Applied Sciences and Arts

External Board of Advisors

Chris Midden, Science Teacher, Unity Point School, Carbondale, Illinois
 Daniel Booth, Superintendent, Carbondale Community HS District 165, Carbondale, Illinois
 Chris Walls, Director, The Science Center, Carbondale, Illinois
 Steve Gough, CEO, Little River Research Design, Carbondale, Illinois
 Tina Carpenter, CEO, Boys and Girls Club, Carbondale, Illinois

10.2 Number of Meetings (In This Year) 0

11. Annual Performance

11.1 Performance Measures *

Measure		Target for Year	Results in Year
1.	Apply for IBHE New Unit approval	Permanent status	Approved 9/10/19
2.	Form External and Internal Advisory Boards	Establish boards	Established
3.	Submit external grant proposals and contracts	Submit 2-3 proposals and obtain \$1,000,000	Exceeded target, 4 proposals were submitted, 2 were funded, & 8 grants continued
4.	Professional conference presentations	5 national presentations & 5 regional presentations	8 presentations at national conferences; 10 presentations at regional & local conferences
5.	Publications in peer-reviewed journals	2 articles	4 published articles
6.	Coordinate new and existing outreach activities	Add 2 new programs	Completed
7.	Create professional development opportunities for K-12 educators	Expand existing programs to impact 100 additional teachers	Completed
8.	Obtain physical space for the center	Submit request	Tabled until reorganization is completed

Measure	Target for Year	Results in Year
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* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

11.2 Major Accomplishments (In This Year)

<p>The STEM center participated in The Great ShakeOut and promoted earthquake awareness and safety to students on campus, local schools, and southern Illinois residents in 2020. https://www.kfvs12.com/2020/10/13/great-shake-out-is-set-thursday/</p> <p>SERC created and donated 3D-printed face shields to Southern Illinois Healthcare and other healthcare workers during the pandemic. http://datelinemarion.com/siu-manufactures-donates-dprinted-face-shields-to-sih-p4262-117.htm</p> <p>SERC partnered with the Office of Vice Chancellor of Research and the Office of Sponsored Projects Administration to provide grant writing workshops for faculty interested in National Science Foundation (NSF) S-STEM projects. Four S-STEM proposals were developed by STEM faculty and submitted to the NSF in April 2020.</p> <p>The Center co-sponsored Illinois Junior Science and Humanities Symposium for High School students to present research projects (virtually) at SIU and compete for chance at nationals.</p> <p>SERC activities were featured in 4 newspaper articles and 1 television interview.</p> <p>Harvey Henson was presented the Service Appreciation Award for serving on the ATE/NASA Joint Commission on STEM Education in the Future in February 2020. This national commission sponsored by the Association of Teacher Educators is a partnership between ATE and NASA to develop STEM programs for teachers throughout the country.</p> <p>SERC co-sponsored a new Dinosaur exhibit and naming contest with Department of Geology. http://www.carbonadaletimes.com/news/20191106/meet-sachi-ido-and-ulla-siu-students-name-baby-dinosaurs</p> <p>The STEM Education Research Center submitted a new unit application and IBHE granted authority to SIU to establish the center on September 10, 2019.</p>

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

<p>Support for SIU Campus Priorities</p> <p>The following priorities from the SIU strategic plan, <i>Pathways To Excellence: A Strategic Plan</i>, are most aligned with the STEM Education Research Center mission goals and were addressed in part by the outcomes and contributions of the center.</p> <p>Student Success: The SERC provided work experiences in STEM education, research, and outreach for 6 undergraduate and 5 graduate students, and in collaboration with faculty and academic departments provided undergraduate scholarships through the NSF S-STEM</p>

program and continued to seek external funding for additional STEM scholarships and internships. Financial support through scholarships and internships increases the likelihood of retention, graduation and career success of STEM students. Universities are increasingly expected to provide students with additional (co-curricular) experiences and opportunities that help them develop skills to better prepare for their chosen careers. These professional development and supplemental learning experiences are important to students' success and are precisely aligned to the goals of the center and were promoted through the center's research and outreach activities and outcomes.

Research, Scholarship, & Creative Activity: The SERC consulted with SIU faculty to improve their teaching, and provide instructional support for science content courses for pre-service teachers. Discussions were held to develop a SERC Faculty Associates or Fellowship program to enable faculty release time to improve undergraduate education at SIU by developing and testing innovative approaches to instruction, which in turn will help improve retention. Summer internships and undergraduate research experiences provided undergraduates opportunities to gain work experience while in college. The center has a high return on investment from grant funding relative to state support, and grants generate indirect cost recovery for SIU, the SERC and our schools and colleges. The SERC continued seeking external funding of STEM education research. Indirect cost recovery from these grant and contract awards was used to support student recruitment, retention and completion and to provide faculty, staff and students funding for research supplies, equipment and travel.

Campus Community: The SERC collaborated with and supported faculty members on grant applications and promoted interdisciplinary research projects, which are a priority for obtaining federal funding agencies. The SERC was PI or Co-PI on multiple pending grant proposals. The center continued to serve as a partner for STEM faculty seeking proposal funding from the NSF, and thereby increase competitiveness of proposals submitted by STEM and other faculty. SERC presented and published research in collaboration with faculty, staff and students, and the center connected faculty with local education agencies, youth organizations, community partners and the general public for opportunities of community engagement.

Community Relations: The SERC served as a leading PreK-12 outreach organization at SIU. Faculty and staff collaborating in the SERC have long and extensive partnerships with local education agencies and community organizations. In addition to creating and coordinating outreach programs to the regional community, the center provided teacher professional development through an assortment of workshops and meetings, and facilitated equipment loans through the Educational Resource Area. Undergraduate student ambassadors and interns supervised by faculty and staff also conducted outreach in the community. The SERC centralized coordination and facilitated promotion of educational materials as part of the educational loaner program through the Educational Resource Area, which reduced costs to academic departments and enhanced community service to our numerous constituents.

Support for IBHE State Goals

- 1. Increase Educational Attainment to Match Best-performing States.** The center is directly addressing the STEM workforce pipeline in Illinois by providing instructional supports to improve student outcomes at the PreK-12, undergraduate, and graduate student levels. As

stated earlier, the SERC has established partnerships with numerous PreK-12 teachers and administrators, and on the SIU campus collaborations with STEM faculty and staff are highly productive. Through these partnerships and collaborations the center continues to improve academic preparation and increase motivation in STEM so that Illinois students successfully transition from high school to higher education, and into STEM careers. One such program, *Pathways to STEM Leadership*, created by PI DeRuntz and Co-PI Henson continued building STEM leaders in FY 2020. This scholarship program is funded by the NSF S-STEM program and has a 100% graduation rate and a 94% STEM career placement record.

- 2. Ensure College Affordability for Students, Families and Taxpayers.** SERC programs are providing scholarships, co-curricular experiences, internships, graduate assistantships, and teacher fellowships and tuition waivers through external grant and contract awards and through regional community partners. The SERC interim director Henson is a Co-PI for already funded NSF S-STEM and Noyce grants and a pending NSF S-STEM grant. These NSF grants have and will provide millions of dollars to support student scholarships, PreK-12 teacher fellowships and waivers, and academic program improvements, respectively.
- 3. Increase the Number of High-Quality Postsecondary Credentials to Meet the Demands of the Economy and an Increasingly Global Society.** The center continued supporting evidence-based, hands-on education and professional development for in-service and future science and math teachers in partnership with the School of Education and College of Science at SIU. In particular, the SERC faculty and staff continued collaborating and innovating across the STEM schools and colleges to increase a diverse and highly qualified workforce of STEM educators and professionals in Illinois and beyond.
- 4. Better Integrate Illinois' Educational, Research, and Innovation Assets to Meet Economic Needs of the State and Its Regions.** STEM faculty and staff at SIU have been highly successful in obtaining competitive external funding for research, service and educational program development. These funds provided support for faculty, staff and students to work collaboratively to accomplish the goals of the center, university and state. For example, nearly 400 STEM educators and professionals from across the state were recruited, trained and employed as independent contractors in the center to conduct science assessment scoring and development through a large partnership with the Illinois State Board of Education. The SERC continued developing partnerships to promote student success in STEM and submitted research proposals to increase funding for new research and discoveries which stimulate and strengthen local, region and state economies.

Involvement in Instruction

This unit is not directly responsible for academic instruction or program administration, but the SERC participated indirectly in academic instruction and program development in several ways. The SERC fostered faculty collaboration to research and improve STEM education through innovative grants and contracts, such as the *Pathways to STEM Leadership* grant with nearly \$1 million funded through the NSF S-STEM undergraduate scholarship program. Moreover, faculty who collaborated within the SERC developed innovative formal and informal education and outreach programs, led academic programs or departments, directed STEM programs, and taught undergraduate and graduate courses in STEM and STEM education. In addition, 5 graduate students and 6 undergraduate students were employed through external grant and

contract funding. These students were supervised by SERC project faculty/staff and mentored or advised by STEM faculty. Students gained valuable co-curricular experience in STEM education and research, and they acquired other professional and academic skills. The center continues to provide degree-related work and meaningful service experiences in STEM for undergraduate and graduate students and mentors students to continue making contributions to teaching, research, and service.

11.4 Evidence of Support for Center/Institute Objectives

Objective 1. *Develop STEM education and research programs at SIU and support existing programs by obtaining grant and contract funding.*

The SERC faculty and staff collaborated to obtain external and internal funding to advance STEM education and research at SIU. Center faculty and staff served as principal investigator (PI) or Co-PI on 6 grant proposals submitted in FY 2020, and two of these proposals were funded for a total of \$38,950. Eight previous funded grants totaling \$13,993,228 continued during FY 2020 as noted below.

Grant Proposals Submitted and Not Funded During FY 2020

1. *“Pathways to STEM Leadership - Track 3”*
PI: Bruce DeRuntz Co-PIs: Harvey Henson, Brian Chapman, Dee Rotolo & John Frost
Agency: NSF S-STEM Dates: 10/01/20 - 9/30/25 (\$4,999,886)
2. *“Converging Earth Science and Sustainability Education and Experience to Prepare Next-Generation Geoscientists”*
PI: Ruopu Li Co-PIs: Harvey Henson, Leslie Durham, Justin Schoof & Dee Rotolo
Agency: NSF S-STEM Dates: 1/01/21 - 12/31/25 (\$999,994)
3. *“Saluki Teen STEM Café”*
PI: Harvey Henson Co-PIs: Angela Box, Euginia Nyirenda & Stefanie Ellis
Agency: Colocation America, Inc. Dates: 06/01/2020 - 08/31/2021 (\$7,500)
4. *“A Social Interdependence Model to Prepare Undergraduate Leaders in STEM (PULSe)”*
PI: Bruce DeRuntz Co-PIs: Harvey Henson, Yanyan Sheng, Dipanjan Mazumdar & Jessica Suda
Agency: NSF IUSE Dates: 07/01/2019 - 06/30/2024 (\$1,876,378)

Grant Proposals Submitted and Funded During FY 2020

1. *“Illinois Junior Science and Humanities Symposium”*
PI: Harvey Henson Co-PIs: Valerie Rasp, Duane Lickteig & Angela Box
Agency: National Science Teachers Association Dates: 10/01/19 - 07/30/20 (\$13,950)
2. *“Online Literacy Instruction and Assessment for Adult Learners.”*
Co-PIs: Bu, L., Miller, G. & Bacon, H. Agency: SIU Extended Campus Dates: 02/12/2019 to present (\$25,000)

Grant Proposals (Funded) Continuing During FY 2020

1. *“Noninvasive Ground Penetrating Radar Investigation of Crayfish Subsurface Habitations”* PI: Harvey Henson Co-PI: Zachariah Seaman

Agency: American Geophysical Union (AGU) and GSSI Dates: 05/19/19 - 12/31/20 (\$2,000)

2. *"Connecting Math & Art through (3D) Design & Making in Mathematics Teacher Education"*
PI: Bu, L. Agency: SIU Foundation Dates: 11/1/2018 - 12/31/2019 (\$5,000)
3. *"Illinois Junior Science and Humanities Symposium"*
PI: Harvey Henson Co-PIs: Valerie Rasp, Duane Lickteig & Angela Box
Agency: National Science Teachers Association Dates: 10/01/18 - 08/31/19 (\$14,450)
4. *"Jabil Lean 5-S Project Proposal for Leadership Development Program"*
PI: Bruce DeRuntz Co-PI: Harvey Henson
Agency: IL Manufacturing Excellence Center Dates: 07/01/18 - 11/30/19 (\$10,000)
5. *"Illinois Science Assessment Partnership – Item Development & Scoring"*
PI: Harvey Henson
Agency: Illinois State Board of Education Dates: 02/15/18 - 06/30/22 (\$12,798,822)
6. *"Making Science Connections 2"*
PI: Harvey Henson Co-PIs: Senetta Bancroft & Angela Box
Agency: Regional Office of Ed 45 & ISBE Dates: 02/15/18 - 08/31/19 (\$86,456)
7. *"Making Math Connections 2"*
PI: Harvey Henson Co-PIs: Wesley Calvert & Lingguo Bu
Agency: Regional Office of Ed 45 & ISBE Dates: 02/15/18 - 08/31/19 (\$86,456)
8. *"Pathways to STEM Leadership Careers"*
PI: Bruce DeRuntz Co-PIs: Harvey Henson, Terri Harfst & Laurie Bell
Agency: NSF Scholarships in STEM Dates: 09/15/16 - 08/31/21 (\$999,994)

In addition to the direct support for the funded programs, these grants generated indirect cost recovery funds for the university and the SERC to support STEM faculty, students and programs. For example, the NSF-funded *Pathways to STEM Leadership* project funded by the National Science Foundation (NSF) is researching and expanding the Leadership Development Program directed by Dr. Bruce DeRuntz by providing scholarships to low-income, underserved STEM majors. This highly effective and collaborative program includes STEM faculty from multiple programs across SIU and is focused on developing STEM leaders using peer mentoring and co-curricular activities. The SERC employs some of these students to work in the center and funds are provided to support and sponsor student leadership team projects. A multiyear, collaborative NSF proposal with lead PI Dr. Bruce DeRuntz to research implementation of a new leadership development curriculum is being developed.

The SERC interim director served as the lead PI for the *Illinois Junior Science and Humanities Symposium* (IJSHS) and SERC provided matching funds for this program. The IJSHS program is a tri-service – U.S. Army, Navy, and Air Force – sponsored STEM competition coordinated through the National Science Teachers Association to promote original STEM research and experimentation at the high school level and to publicly recognize students for outstanding achievement. The SERC also assisted with recruitment, organization, and judging for the symposium.

The SERC staff recruited qualified students and partners to judge the Illinois Junior Academy of Science Region 8 Science Fair on the SIU campus and plans to present a SERC recognition award to entries that exemplify STEM innovation or creativity to encourage student interest in STEM advancement and industry. The SERC staff participated in *Expanding Your Horizons* conference, which provides hands-on enrichment for girls in grades five through nine. The center provided financial support for *Pi Day*, a fun campus and community engagement in mathematics and STEM.

Faculty associated with the SERC were supported through significant contributions to their respective departments and academic programs. For example, in the Department of Geology SERC provided funds from indirect cost recovery to create a new model Dinosaurs exhibit, install an interactive video and Smart TV system, build two new Digital Sandboxes for teaching and outreach, and support award winning Crayfish habitat exploration and research using GPR imaging. 3D printers and materials were purchased for research, teaching and outreach in the Mathematics Education program; and in the Department of Mathematics Smart video technology was purchased by SERC and installed in two math teaching labs to improve content delivery and student outcomes.

Pre-service STEM education students served as student ambassadors alongside SERC staff at SIU *Open House*, *SIU Day*, and other new student recruitment events. SERC provided training, meals and SIU polo shirts for these ambassadors. SERC provided pre-service teachers enhanced STEM education experience in science and math methods courses by purchasing equipment and materials, presenting STEM research and results, inviting guest speakers, and supporting graduate student presentations such as *Project Wild*, Digital Sandbox and 3D mapping.

Graduate and undergraduate students were included in teacher professional development workshops such as *Making Math Connections* and *Making Science Connections*, participated in STEM research, and received important exposure through new programs, such as the *Illinois Science Assessment Partnership*. SERC was awarded a \$13 million, five-year partnership with the Illinois State Board of Education (ISBE) to develop the ISA collaboration, which expanded in FY 2020. Pre-service teachers and graduate students were involved in project planning and development and had exposure to a network of nearly 400 teacher partners in this unique state-wide collaboration.

Objective 2. *Provide professional development, curriculum development, workshops and support for our region's PreK-12 teachers and administrators.*

This year approximately 100 teachers from across Illinois joined nearly 300 educators to assist in the development of the Illinois Science Assessment (ISA) mentioned earlier. This important project provided opportunities for teachers to develop professional relationships, increase content knowledge, increase standards expertise, share teaching experiences, and evaluate their current teaching methods using the Illinois Learning Standards in Science. Beyond professional development, the ISA partnership provided professional buy-in where teachers seize an opportunity to shape the assessment process. Professional development occurred for the teachers as they must apply processes to ensure that sound measurement and psychometric practices are followed in the development of test items. They learned about acceptable rates of item difficulty and item discrimination. Item developers learned characteristics of good items as part of important professional development on the NGSS content standards provided teachers during the ISA partnership. Workshops on ISA item development were hosted by the SERC, ISBE and the National Science Teachers Association.

Future workshops and meetings were scheduled to fulfill the ISA blueprint.

The SERC partnered with Illinois Math and Science Academy (IMSA) to provide workshop space and logistics for the *IMSA Fusion* program to expand their outreach south of Interstate 64. Through the efforts of the SERC, partnering locations included the Crab Orchard National Wild Life Welcome and Education Center, a SIU Geology classroom, John A. Logan Community College Biology classroom, and ROE office in Mount Vernon, IL. The *IMSA Fusion* program is a teacher professional development and student STEM enrichment program for Illinois students who are talented, interested and motivated in mathematics and science. By design, the *IMSA Fusion* curriculum is inquiry based, problem centered and integrative. Teachers from each participating school were supported with professional development for the delivery of the curriculum and use of appropriate pedagogy.

SERC served as a member of the *Science in the South* steering committee to organize and host the conference on the SIU campus in January. *Science in the South* is a professional development conference for educators from across Illinois to build teaching skills, expand content knowledge, and network with other teachers to exchange ideas on teaching STEM. *Science in the South* offers a variety of relevant, informative and challenging workshops led by peers, STEM faculty, administrators, scientists, and other experts. Average attendance is around 200 participants.

Objective 3. *Research and facilitate strategies of teaching aligned to the NGSS and Common Core for improved student and public literacy.*

The SERC developed or was involved in multiple grant-funded projects that guided teachers in developing an understanding of the Next Generation Science Standards (NGSS) and Common Core Standards. The center provided resources and opportunities to improve understanding and alignment of teaching to the standards. SERC faculty developed research-based learning experiences for grant programs, assisted teachers in developing standards based lessons and assessments, and instructed and mentored participants in action research development, writing, and presentation. For example, *Making Math Connections* and *Making Science Connections* workshops allowed participants peer-to-peer breakout sessions in which attendees were engaged in these relevant science and math activities, methods, and technologies.

As part of the ISA Partnership, SERC staff developed training sessions for educators participating as hand-scorers for the ISA. The workshops were informed by teacher feedback from SERC developed surveys, participant performance data and gaps in NGSS content and Science and Engineering practices such as *Engaging in Argument from Evidence*, *Analyzing and Interpreting Data*, *Constructing Explanations*, *Developing and Using Models* and *Obtaining, Evaluating, and Communicating Information* which served to improve teacher understanding of NGSS content (principally content that appeared on the ISA). In particular, the staff modeled the Scientific Explanation Framework model and relevant disciplinary core ideas.

Research was conducted by SERC faculty and grad students to investigate the *Effect of Scoring the Illinois Science Assessment on K-12 Science Teachers' Instructional Design*. Data collected from ISA scoring participants helped determine the effect of their experience on K-12 teacher science presentation and engagement in the classroom. Outcomes were presented at conferences. SERC staff are currently planning a seminal study of select participants of the ISA to get more data which will lead to development of teacher experiences to address instructional design as it relates to student achievement and teacher knowledge and pedagogy.

Objective 4. *Build partnerships with local, state and national stakeholders to advance STEM teaching, learning and research.*

The SERC continued to develop strong partnerships with the Regional Offices of Education (ROE) and their respective school districts in the SIU service area and beyond. These partnerships have been leveraged to acquire grants to fund the multiple professional development workshops and STEM education programs discussed in other areas of this document. As discussed previously (and later in Objective 5), the SERC is the principal partner with the Illinois State Board of Education (ISBE) for the Illinois Science Assessment, and developed subaward proposals with STEM faculty from seven Illinois universities. In addition, the National Science Teachers Association was recruited to be a partner of the SERC and ISBE to help provide workshops, training, and other professional development for teachers.

By partnering with FEMA, the Illinois Emergency Management Agency (IEMA), the Great ShakeOut, and the Central United States Earthquake Consortium (CUSEC), SERC researchers and earthquake experts provided community outreach and education regarding natural disaster mitigation and readiness. Interim Director Henson served as the PI for these initiatives and continues to collaborate with the University of Oklahoma to create award-winning earthquake education multimedia materials and public service announcements. An informational kiosk was created this year for the Alabama Emergency Management Agency to educate the public in their state about the earthquake threat to the Midwest. Another kiosk is planned for the Arkansas Division of Emergency Management in FY 2021. The earthquake kiosk received the prestigious Best of Festival award from the Broadcast Education Association in 2018.

Interim Director Dr. Harvey Henson was nominated and invited to join the Association of Teacher Educators/NASA Joint Commission on *STEM Education in the Future* in early 2018. The purpose of the Commission is to explore and frame issues related to STEM Education in which educators have the potential to affect positive change. The commission completed its work and Henson received a Distinguished Service Award for this excellent work on the commission. Outcomes of the Commission include advocacy and policy work with legislators, professional associations related to educator preparation, state agencies, and industry. White papers, blogs, podcasts, radio and televised or live-streamed interviews, and national and international conference symposia and workshops for educators were generated through the collaborative inquiry and discourse of the Commission.

Objective 5. *Build partnerships to improve and implement the Illinois Science Assessment and other state assessments.*

The STEM Education Research Center (SERC) at SIU collaborated with educators from across the state to develop the Illinois Science Assessment (ISA). Along with the Illinois State Board of Education (ISBE), these educators worked to create new test items which are aligned to the Illinois Learning Standards in Science based upon the NGSS. As part of the project with ISBE, partnerships were developed with teachers across Illinois, and a network of higher education experts, universities, school districts, regional offices of education, and educators throughout the state of Illinois was established. The ISA project created a support network for teachers to access STEM resources and receive professional development related to science and math assessment. By working with the SERC on the ISA and other projects teachers gained confidence and buy-in of the assessment and standards process, and they learned about

services and resources available in the center as they were engaged by SERC faculty and staff.

The ISA is mostly an online assessment and a few test questions provide the opportunity for students to create written answers to extended response questions. The ISA represents the first time extended response test items were used in an Illinois-developed science assessment. As part of the SIU and ISBE partnership, SERC staff recruited, managed, and evaluated the hand-scoring process of the ISA which included over 1.4 million constructed responses from 5th grade, 8th grade and high school students in Illinois public schools. Center staff coordinated recruitment, qualification and training of STEM educators to hand score the constructed response items. Recruitment began with an email campaign to teachers, schools, regional offices of education (ROE) who were previous partners on other projects and professional development workshops hosted by SIU STEM faculty. Further recruitment included hosting information sessions at teacher conferences/institutes such as Mount Vernon Conference and ROE 30 Teacher Institute, and *Science in the South* at SIU. Other recruitment efforts included state-wide dissemination via ROEs, ISBE workshops, direct invites, and attending regional public school administrator meetings across the state. Through these efforts, the SERC gathered more than 400 teachers, administrators, and STEM professionals from all over the state to join in this endeavor. The work and collaboration between the SERC, the ISBE and hundreds of educators on the Illinois Science Assessment (ISA) increased the validity and reliability of the state science assessment.

In the development of test items for the future science assessments, Illinois science teachers and SIU faculty reviewed the content standards of NGSS and the item content of existing and newly developed items in an attempt to create a valid and reliable assessment that adequately covers the NGSS. Since curriculum, instruction and assessment are integrally related, teachers involved in the test development process are now aligning their instruction to the NGSS. Student learning was affected positively by the experiences teachers brought back to the classroom from participation in the SERC programs, and there was corresponding evidence students' assessment scores improved as well.

Objective 6. *Collaborate with the SIU community to provide students excellent preparation for advanced programs and professions in STEM.*

The STEM Education Research Center (SERC) has been successful in obtaining a wide range of grants to support its activities. These grants provided support for numerous undergraduate and graduate students in their preparation for advanced education and future careers in STEM. This support ranged from undergraduate scholarships and graduate assistantships to serving on thesis and dissertation committees. The SERC also provides student mentoring to student organizations including the STEM Education Ambassadors, Education Living and Learning Community, Saluki Science Ambassadors, Science Living and Learning Community, and Leadership Development Program.

SIU students were involved in many of the *Illinois Science Assessment Partnership* activities as described in prior sections of this report. Several graduate students learned about the psychometric tasks applied in the ISA, which are ultimately utilized in the testing industry and are invaluable to STEM education research.

To provide improved educational attainment for students, the SERC offered ancillary support to STEM courses and instructors. Through these partnerships the center continues to improve academic preparation and increase motivation in STEM so that Illinois students successfully

prepare for STEM careers. One such program, *Pathways to STEM Leadership*, created by PI DeRuntz and Co-PI Henson is funded by the NSF S-STEM. This leadership development program continued building STEM leaders in FY 2020 with a 100% graduation rate and a 94% STEM career placement record. SERC faculty have a successful record of accomplishment with this NSF S-STEM program and shared their experience with other faculty. The SERC partnered with the Office of Vice Chancellor of Research and the Office of Sponsored Projects Administration to provide workshops for faculty interested in NSF S-STEM. Participants gained skills and built partnerships to develop grant proposals to apply for scholarships to support STEM students at SIU. Four S-STEM proposals were developed by STEM faculty and submitted to the NSF in April 2020. Other grant proposal preparation workshops are being considered, and SERC will offer support throughout the grant application process.

Presently, SERC collaborations continue among faculty and staff in science education, math education, engineering, quantitative methods, geography, geology, anthropology, health and human services, and automotive technology among other programs. However, plans to expand and enhance STEM research and education to include faculty and students from the Arts are taking shape.

The SERC aims to be a hub of support and innovation for the STEM community at SIU, and to serve as a mainstay for campus educators, student organizations, and students when they need answers in the changing landscape of learning in today's academic environment. The objective is to provide a central point of contact for common issues such as visiting schools, assembling outreach materials, and coordinating volunteers. SERC seeks to enable sharing of resources, such as materials, equipment or personnel, and to initiate, facilitate and foster research partnerships among STEM stakeholders, educators, faculty and students. SERC is serving public school teachers and providing access to the wealth of resources and personnel at SIU.

The SERC plans to increase engagement and partnership with registered student organizations (RSOs) and leverage the RSO's to become force multipliers in STEM education and outreach. The SERC plans to increase communication to all STEM departments on and off campus, increase sponsorship of events where STEM programs and professions can be celebrated and promoted such as sporting, media and arts events, and take STEM education into the residential learning communities (LLCs) on campus.

11.5 Evidence of Organizational Effectiveness

SERC is a research and service unit at SIU and was highly effective at achieving our goals (section 9.3 Objectives) in each area this year as discussed in the previous section (11.4).

Service and Outreach Activities

See examples of professional and community service described in previous sections (11.2, 11.3, and 11.4)

Grant Applications & Research

STEM Center revenue through grants and contracts increased by \$38,950, and combined with external grants continuing in FY 2020 totaled \$2,443,299. We exceeded our target for grant

proposal submissions. Center faculty and staff served as principal investigator (PI) or Co-PI on 6 grant proposals submitted in FY 2020, and two of these proposals were funded for a total of \$38,950. Eight previous funded grants totaling \$13,993,228 continued during FY 2020.

Research was conducted as part of internal and external grant funding and disseminated broadly to other scholars and practitioners. Dissemination and sharing of research and teaching outcomes at conferences and professional meeting is essential, and SERC continued to support faculty and students to accomplish this widely. The number of peer-reviewed presentations, peer-reviewed publications and invited presentations produced during the last several fiscal years by faculty and staff directly supported in the SERC with the combined FTE are listed in the table below. Dissemination activity of collaborative faculty and staff who are not supported by the SERC, or who are supported as personnel or by contract are not included in this report.

STEM Education Research Center dissemination activities

Year	# Peer-Reviewed Publications and Creative Works	# Peer-Reviewed Presentations	#Invited Presentations	FTE Research Faculty & Staff
FY 2020	10	11	11	1.75
FY 2019	8	18	11	1.75
FY 2018	8	20	9	3.25
FY 2017	9	13	7	2.25
FY 2016	5	17	4	0.25
FY 2015	11	9	3	0.25

12. Institutional Assessment

12.1 Date of Last Review 09/10/2019 (see 12.3 Explanation)

12.2 Decision at Last Review _____ Center/Institute in Good Standing
 _____ Center/Institute Flagged for Priority Review
 _____ Center/Institute Suspended

12.3 Explanation New unit permanent status was granted by IBHE on 09/10/2019. The next review will occur during 2027-2028. A self-study report was completed May, 2018 while the center was on temporary status.

RESOURCES: STEM Education Research Center

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016
Revenues					
State Appropriations					
Income Fund					
Grants & Contracts	\$2,443,299	\$1,700,957	\$1,183,580	\$253,457	
Other Internal Salary/Startup				\$11,397	\$11,397
Indirect Cost Recovery	\$24,047	\$35,187	\$42,650	\$20,346	
Total Revenues	\$2,467,346	\$1,736,144	\$1,226,230	\$292,561	\$11,397
Expenditures*					
Faculty & Staff Salary	\$308,117	\$300,311	\$242,436	\$107,810	\$11,397
GA support/Student Worker	\$126,682	\$122,991	\$66,956	\$58,360	
Supplies, Services, Equip	\$2,020,317	\$1,304,021	\$891,207	\$99,560	
Travel	\$18,650	\$6,500	\$9,000		
Total Expenditures	\$2,473,766	\$1,733,823	\$1,209,599	\$265,730	\$11,397
Revenue Minus Expenditures	(\$6,420)	\$2,321	\$16,631	\$19,470	\$0

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	1.25	1.25	1.25	1.25	0.25
Staff	2.5	2.5	2.0	1.0	0
Graduate Assistants	2.0	2.0	2.0	0.5	0
Student Workers	1.0	1.0	1.0	0.25	0
Total Staffing	6.75	6.75	6.25	3.0	0.25

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	SIU Carbondale
2.	Center/Institute	Touch of Nature Environmental Center
3.	Date	March 3, 2021
4.	Director	JD Tanner
4.1	Telephone	618-453-3942
4.2	E-mail	jdtanner@siu.edu
5.	Year Established	Land acquires 1949. First programs in 1952.
6.	Illinois State Statute (if pertinent)	N/A
7.	Reporting Unit	Student Affairs
8.	Type	Activity (check all that apply)
	Instructional	X
	Research	X
	Public Service	X

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

Touch of Nature is an outdoor education center providing outdoor learning opportunities to the University and the community since 1952. The Center is almost 3400 acres and provides facilities ranging from rustic cabins to an 18 room hotel. Dining halls, meeting spaces, hiking trails, biking trails, beaches, archery range, sports fields, etc are all included. Program offerings include Leadership Development and Trainings, Recreation Therapy camps and programs, Environmental Education Programs and Trainings, and general Hospitality Services.

The Center also supports and participates in Outdoor Recreation, Recreation Therapy, Forestry, Wildlife Biology, Agricultural Sciences, and Architecture academic programs and research.

9.2 Mission

The mission of Touch of Nature Environmental Center is to enhance the lives of all people through outdoor experiences.

9.3 Objectives

Values:

- Experiential Learning
- Environmental Stewardship
- Health and Wellness
- Equity/Inclusion/Diversity

10. Advisory Board

10.1 Advisory Board - Membership

N/A

10.2 Number of Meetings (In This Year) N/A

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. Program Participation	18,000	9,800
2.		
3.		
4.		
5.		

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

11.2 Major Accomplishments (In This Year)

Began construction on Phase 1 of a multi-use trail system. Phase 1 build included a 33 car parking lot (completed), a Kid's Bike Terrain Park (completed), and 10 miles of single track trail (completed). Overall project will include 30+ miles of trail and the addition of an outdoor Event Center space and an Adult Terrain Park.

Began phase 1 of forest management plan (in partnership with SIU Forestry). Phase 1 includes the removal of invasive species in main camp and trail areas. Over \$100,000 in grants, cash donations, and in kind support were given for this phase.

Hired two new employees that have a 75% assignment to Touch of Nature and a 25% assignment to the Recreation Professions department.

Received national recognition by being selected as one of only eleven organizations in the United States to provide Leave No Trace Master Educator Course trainings: <https://lnt.org/get-involved/training-courses/master-educator-course/providers/>

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

- Received a \$200,000 Recreational Trails Program grant to build hiking and biking trails to improve community health & wellness and to increase tourism to Southern Illinois

11.4 Evidence of Support for Center/Institute Objectives

- Dawg Days donations - receive over \$20,000 per year from departments on the main campus to support the Dawg Days New Student Program
- Multi-use Trail project – this project has received over \$350,000 in grants and donations to date

- SIU Credit Union – Donates \$10,000 per year to support SIU student focused programs at the Center
- River Radio – Donates over \$43,000 per year in radio advertising to the Center to support all Community Programs and Camp Little Giant
- Donors/volunteers – The Center receives 1000s of volunteer hours per year to support Forest Management projects, trail building, program support, a community event support

11.5 Evidence of Organizational Effectiveness

NEW position - 75% Assistant Director of Outdoor Recreation and Education / 25 % Assistant Lecturer in Recreation Professions position was approved and hired

The Recreation Therapy Specialist retired and was replaced with a 75% Recreation Therapy Specialist / 25% Assistant Lecturer in Recreation Professions position

The Center took over operations of Basecamp located in the Student Recreation Center

12. Institutional Assessment

12.1	Date of Last Review	<u>2012/2013 completed. 2020/2021 in progress.</u>
12.2	Decision at Last Review	<input checked="" type="checkbox"/> Center/Institute in Good Standing <input type="checkbox"/> Center/Institute Flagged for Priority Review <input type="checkbox"/> Center/Institute Suspended
12.3	Explanation	<u>n/a</u>

RESOURCES: Touch of Nature Environmental Center

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016
Revenues					
State Appropriations	512,026.65				
Income Fund	406,054.46	967,738.88	856,531.58	861,241.79	804,056.43
Grants & Contracts					
xxx					
xxx					
xxx					
Total Revenues					
Expenditures*					
Salaries	\$814,244.19	\$803,672.45	\$653,778.37	\$477,910.59	\$466,612.98
Wages	\$30,870.49	\$62,751.84	\$64,569.92	\$52,157.13	\$35,651.35
Travel	\$847.31	\$55.00	\$291.35	\$457.24	\$25.82
Equipment	\$24,217.74	\$291.56	-\$5,850.00	\$46,721.41	-\$128.47
Commodities	\$130,609.94	\$100,801.91	\$84,360.94	\$60,879.59	\$47,008.61
Contractual Services	\$235,121.65	\$224,564.99	\$316,080.56	\$220,288.87	\$232,224.01
Operation of Auto	\$35,639.19	\$42,388.36	\$35,027.28	\$18,221.93	\$19,873.96
Telecommunications	\$14,548.54	\$16,526.18	\$15,573.72	\$95,498.95	\$17,659.70
Employer Contributions	\$11,640.85	\$11,941.64	\$8,036.04	\$7,752.36	\$9,110.22
General Administration	\$5,887.53		2910.00	2957.00	\$123.15
Refunds	\$1,250.00				
Graduate Assistant Awards		1105.98	328.50	683.28	722.70
Total Expenditures	\$1,304,737.43	1,264,099.91	1,172,196.68	983,528.35	828,884.03
Revenue Minus Expenditures	-386,656.32	-296,361.03	-315,635.10	-122,286.56	-24,827.60

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	2 at 25%				
Staff	12 at 100% 2 at 75%	13	13	9	9
Total Staffing					

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	Southern Illinois University Carbondale						
2.	Center/Institute	WSIU Public Broadcasting						
3.	Date	February 28, 2021						
4.	Director	Lester E. "Jak" Tichenor (Interim Director)						
	4.1 Telephone	618-453-6181						
	4.2 E-mail	jak.tichenor@wsiu.org						
5.	Year Established	Academic Year established as recognized by the SIU President, - 1958						
6.	Illinois State Statute (if pertinent)	N/A						
7.	Reporting Unit	Office of the Chancellor						
8.	Type	<div style="text-align: center;">Activity (check all that apply)</div> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="padding: 2px 5px;">Instructional</td> <td style="text-align: center; padding: 2px 5px;">X</td> </tr> <tr> <td style="padding: 2px 5px;">Research</td> <td style="text-align: center; padding: 2px 5px;"></td> </tr> <tr> <td style="padding: 2px 5px;">Public Service</td> <td style="text-align: center; padding: 2px 5px;">X</td> </tr> </table>	Instructional	X	Research		Public Service	X
Instructional	X							
Research								
Public Service	X							

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

Licensed to the Board of Trustees of Southern Illinois University, WSIU Public Broadcasting is an integral partner to the College of Mass Communication & Media Arts on the Carbondale campus. Since 1958, WSIU has provided trusted programming and services that inspire personal growth, community engagement, and a love for learning in people of all ages.

The WSIU stations serve nearly five million people across seven states and beyond through five digital television stations, three radio stations, a website, local production units, social media channels, and an education and community outreach department. Additional services include the Southern Illinois Radio Information Service (SIRIS), operated by WSIU Radio, which helps over 1,000 individuals who are blind or whose physical condition prevents them from reading stay connected to the world. WSIU also offers professional development in the broadcast industry to hundreds of students each year.

9.2 Mission

WSIU Public Broadcasting exists to improve the quality of life of the people we serve. Through programs, services and outreach, WSIU partners with other community organizations to promote positive change, and to support the academic and public service missions of Southern Illinois University Carbondale.

9.3 Objectives

Provides experiential learning opportunities for students at Southern Illinois University in a wide variety of areas including broadcast, journalism, digital media, community engagement, marketing, and promotions. WSIU provides free over-the-air educational broadcast service to the region with a specific focus on universal access, particularly in rural areas.

10. Advisory Board

10.1 Advisory Board - Membership

WSIU is served by a Friends Board with a primary objective of advocating on behalf of the stations. While the group may provide advice from time to time, we do not refer to them as an advisory board which has a specific definition under grant guidelines with the Corporation for Public Broadcasting.

10.2 Number of Meetings (In This Year) 6

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. Scholar Bowl HS Students in Studio for Hi-Q	31	31
2. Community Partnership Organizations	100	115
3. Family Day Attendance at Cedarhurst Mt. Vernon	300	0
4. Indie Lens Pop Up Attendees	225	225
5. Individual Outreach contacts	5,000	1,859

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

11.2 Major Accomplishments (In This Year)

The WSIU Radio and Television stations provided important daily news and public safety programming without interruption for our broadcast audiences and web channels throughout the onset of the COVID-19 pandemic in March, 2019 and the rest of the fiscal year. This includes hundreds of local radio news stories and in-depth features, interviews, and web content as well as live radio coverage and web-streaming of the Illinois Governor's daily news conferences concerning the pandemic. In April, 2019, WSIU-TV added the 24/7 PBS Kids channel to our over the air service to provide educational programming to our multi-state audience during and throughout the pandemic. WSIU-TV's daytime HD schedule and World channel were altered to add instructional programming to serve students, families, and teachers while schools were closed. Further, WSIU partnered with PBS, the Illinois State Board of Education, and local school districts to offer additional web-based educational content during the interruption of in-person learning. All of this took place despite a variety of stay-at-home orders that required most of the WSIU staff to work remotely or in highly restricted conditions to ensure health and safety. In February and March, 2019 WSIU-TV produced the Governor's State of the State and Budget Message speeches for all Illinois PBS and NPR member stations statewide.

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

Student Success: WSIU Radio and Television offered students experiential learning opportunities in all aspects of the media industry resulting in approximately 1,500 hours of real-world training; worked with over 50 university and community volunteers who contributed over 1,500 hours of service. Diversity and Inclusiveness: Held documentary cinema screenings and facilitated discussions at the public library to promote awareness of community issues. Community Relations: WSIU maintained a network of strategic community partners to promote education, outreach, and inclusiveness in our communities.

11.4 Evidence of Support for Center/Institute Objectives

WSIU worked with students from throughout the university, including the College of Mass Communication and Media arts to provide hands on, experiential learning through multiple broadcast productions through March, 2020. These included daily radio news casts, full-length audio programming and national distribution, digital and social media productions, full-length television productions including: River Region Evening Edition, Saluki Sportsview, Scholastic Hi-Q, alt.news 26:46, Lincoln Academy, Illinois Lawmakers, Sounds of the Season, and more. WSIU Radio provided service to over 1,400 subscribers to SIRIS (Southern Illinois Reading Information Service) for the blind and visually impaired. Maintained and operated five full-power television transmitters and three full-power radio transmitters servicing approximately 5-million

people in seven states with free over-the-air educational media including local news and information, a full schedule of children’s television, and documentary content. Although studio-based television programs were mostly suspended in March 2020 due to COVID, WSIU pursued new ways of creating virtual versions of our regular programming like CapitolView via the Zoom platform. Student participation in program producing was reduced due to the pandemic, but student employees and volunteers played significant roles in content production to augment professional staff in our public service mission both on campus and through remote work opportunities.

WSIU continued working with the Carbondale Public Library to host virtual film screenings and discussions on social issues that impact our viewers and listeners; served as a platform for local voices that reflect our region’s unique personality; historical legacy, values and diversity of opinion through episodes of our Illinois Stories and CapitolView series; facilitated educational opportunities for children at local libraries; created investigative partnerships with local journalists.

11.5 Evidence of Organizational Effectiveness

WSIU serves nearly five million people stretching across a seven-state region on a variety of platforms including multiple digital television channels and radio stations, interactive web platforms, social media and mobile applications. WSIU operates with approximately 30% of the full-time staff it operated with 20 years ago (down from 50 to 34). WSIU generates more than \$3.4-million in outside grant funding and approximately \$1.3 million in local community support to compliment over \$764,000 in university operating cash support.

12. Institutional Assessment

12.1	Date of Last Review	<u>2013-2014</u>
12.2	Decision at Last Review	<input checked="" type="checkbox"/> Center/Institute in Good Standing <input type="checkbox"/> Center/Institute Flagged for Priority Review <input type="checkbox"/> Center/Institute Suspended
12.3	Explanation	(briefly provide any explanation necessary of the institutional assessment or plans for pending program review) <hr/>

RESOURCES: WSIU Public Broadcasting

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016
Revenues					
State Appropriations	764,306	827,203	836,348	888,010	912,265
Operating Grant – CPB	3,118,965	2,539,961	1,137,167	1,177,136	1,146,917
Operating Grant – State of IL	245,705	171,010	164,710	0	0
Project Grants	43,355	52,329	21,569	20,149	71,652
Membership Income	875,819	823,292	442,140	478,761	603,906
Underwriting Income	422,404	390,542	432,628	501,616	460,543
Production Income	5,408	42,379	39,142	32,993	33,341
Tower Income	115,260	95,810	59,206	59,206	70,932
Federal Work Study	10,932	18,161	26,423	33,441	32,197
Direct University Support	436,399	450,333	441,662	511,571	427,237
Indirect/In-Kind SIU Support	1,040,528	1,008,996	995,377	968,697	1,086,659
Other Indirect Support	39,996	49,716	40,401	43,162	52,044
Building & Equip SIU Support	0	41,747	0	45,401	0
Investment Income	1,999	4,952	7,770	12,848	(11,549)
State Benefit Payments	685,074	708,015	1,511,307	1,615,649	1,362,695
Misc Income	0	2,701	3,616	4,368	5,988
FCC Repack Funding	1,961,710	10,957	0	0	0
Total Revenues	9,767,860	7,238,104	6,159,466	6,393,008	6,254,827
Expenditures*					
Programming & Production	3,247,965	2,957,047	3,043,989	3,288,246	3,221,443
Broadcasting & Engineering	1,998,224	1,638,450	1,198,769	1,138,840	1,120,595
Program Info & Promotion	206,545	403,992	317,718	362,766	377,666
Fundraising & Membership	548,936	314,786	337,165	350,559	372,959
Underwriting & Grant	381,188	144,420	150,313	258,359	257,230
Management & General	1,053,794	1,015,643	1,079,059	1,048,571	975,673
Total Expenditures	7,436,652	6,474,338	6,127,013	6,447,341	6,325,566
Revenue Minus Expenditures	2,331,208	763,766	32,453	(54,333)	(70,739)

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty-Full Time	1.40	1.5	1.5	1.5	1.5
Staff-Full Time	25.60	22	22	26	26
Student Employees-FTE	14.69	15.71	11.33	13.96	12.65
Total Staffing-FTE	41.69	39.21	34.83	41.46	40.15
Student Employees Number/Yr	40	56	55	76	97

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	Southern Illinois University Edwardsville						
2.	Center/Institute	Center for STEM Research, Education, & Outreach						
3.	Date	29 March 2021						
4.	Director	Sharon Locke						
4.1	Telephone	618-650-3452						
4.2	E-mail	slocke@siue.edu						
5.	Year Established	2012 (received temporary approval from IBHE); September 19, 2017 (received permanent approval from IBHE)						
6.	Illinois State Statute (if pertinent)	N/A						
7.	Reporting Unit	Graduate Studies and Research						
8.	Type	<p style="text-align: center;">Activity (check all that apply)</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">Instructional</td> <td style="border: 1px solid black; text-align: center; width: 30%;">X</td> </tr> <tr> <td>Research</td> <td style="border: 1px solid black; text-align: center;">X</td> </tr> <tr> <td>Public Service</td> <td style="border: 1px solid black; text-align: center;">X</td> </tr> </table>	Instructional	X	Research	X	Public Service	X
Instructional	X							
Research	X							
Public Service	X							

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9. Overview

9.1 Description

The STEM Center provides centralized leadership and support for STEM education activities and research. The Center brings together practitioners and researchers from a broad range of disciplines to achieve its goals of improving STEM (science, technology, engineering, and mathematics) understanding and achievement in K-12 and higher education and increasing STEM literacy in communities..

9.2 Mission

The STEM Center at SIUE is dedicated to building a community of researchers and educators who together innovate ways to engage students and the public in STEM.

9.3 Objectives

1. Build and support interdisciplinary teams of SIUE faculty to conduct STEM education projects and seek and secure external and internal funding.
2. Provide access to equipment, facilities, and expertise from STEM education research to SIUE faculty and students and the broader community.
3. Facilitate and promote innovations in SIUE undergraduate and graduate STEM teaching.
4. Enhance teaching and learning of STEM for pre-service and in-service teachers.
5. Develop, enhance, coordinate, and promote new and existing STEM related outreach in the southern Illinois region to enhance STEM literacy.
6. Develop and maintain a comprehensive STEM resource and equipment center for in-service and pre-service teachers, SIUE faculty, and other local stakeholders.

10. Advisory Board

10.1 Advisory Board - Membership during FY 2020

Internal Advisory Group:

Connie Barber, Assistant Professor, Computer Management and Information Systems
Chris Gordon, Associate Dean & Professor, School of Engineering
Lynn Bartels, Professor, Department of Psychology & Faculty Development Director
Kelly Jo Karnes, Director, Kimmel Student Involvement Center
Jessica Krim, Interim Assistant Dean & Associate Professor, SEHHB
Terri Poirier, Associate Dean for Education and Academics, School of Pharmacy
Chaya Gopalan, Associate Professor, Applied Health and Nursing
Barb Nwacha, Chair and Professor, Department of Art and Design
Bill Retzlaff, Associate Dean and Distinguished Research Professor, CAS

External Advisory Group:

Susan Czerwinski, Dean of Career Programs, Lewis and Clark Community College
Harvey Henson, Director, Southern Illinois University Carbondale, STEM Center
Andrew Reinking, Superintendent of Madison CUSD 12
Stephanie Spann, Structural Engineer, David Mason and Associates
Kathy Wilson, Executive Director, Boys and Girls Club
Pat Szpali, Science Teacher, Collinsville High School

10.2 Number of Meetings (In This Year) One internal and no external

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. Develop grant proposals as PI and/or collaborator with SIUE departments	5	7
2. Submit peer-reviewed articles for publication	2	10
3. Present findings at conferences	14	8
4. Issue RFP and award Faculty Fellow(s) in undergraduate education	1	1 (continuation)
5. Promote use of lending library	790 direct impact	4,200 indirect
6. Offer educator professional development	5 sessions	3 sessions
7. Develop new contracts with relevant partners	2 contracts	none
8. Coordinate STEM community outreach activities	25 outreach events	42 virtual activities
9. Provide teaching expertise to SIUE units	6 credit hours	41 credit hours
10. Disseminate STEM Center activities and achievements through press releases	15	11

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

11.2 Major Accomplishments (In This Year)

Directors' Note:

In a year when the global pandemic and violence against African Americans shook the foundations of institutions of higher education, the STEM Center adapted existing programs or created new ones in virtual formats, enabling us to maintain services to the local community and fulfill our obligations to active federal grants. The faculty and staff also committed to examine how we can better support student retention at SIUE and be part of the solution to dismantling systemic racism. We initiated a new reading club with biweekly sessions to discuss research on inequities in STEM education, and we established a small reading library in our office suite where center staff could borrow books about racism and related topics. For 10 years, the STEM Center's primary focus has been on providing high-quality STEM learning within under-resourced communities. We have had many students of color and young women participate in our programs and go on to become successful undergraduates, scientists, and teachers. But we want to do even better--to provide more research experiences, internships, and scholarships through partnerships across campus and with other institutions. Much of our work is more widely known outside of SIUE on the national stage than it is locally, and we want to strengthen new and existing relationships within SIUE and the SIU System to further enhance the STEM Center's impact. To do this, a major goal for FY21 is the development of a new strategic plan.

Accomplishments:

The STEM Center received a \$300,000 NSF Improving Undergraduate STEM Education award to investigate practices that promote student safety and inclusivity among archaeological research.

This award will support STEM Center faculty to research those steps that field directors take to prevent and reduce sexual harassment and assault at field schools, as well as student perceptions of these steps. Within the first year of the award, this research has already resulted in one peer-reviewed publication and was featured in Science Magazine.

In FY20, due to the restrictions in place for COVID-19, the STEM Center pivoted to virtual programming to supplement at home learning for 25 girls in Granite City. We adjusted our group focused curriculum to be appropriate for individuals to complete at home by themselves or with a sibling, while keeping a focus on environmental education and nature based learning. Subjects included rock collecting and identification, bird watching, and food webs. Staff at the STEM Center also created a video series of scavenger hunts that students could complete in their neighborhoods.

To facilitate at home learning for families in the region and beyond during the pandemic, the STEM Center launched the STEM at Home program in the latter half of FY20. This program resulted in the writing and publication of 42 lesson plans and 14 original videos for families and educators by the end of FY20.

The STEM Center hosted the Science and Engineering Research Challenge in March of 2020. Our Science and Engineering Research Challenge attracts hundreds of students from throughout southwestern Illinois, and even students outside our region participate. Because of restrictions related to the pandemic, our challenge had to be adjusted to a virtual format. Because of this and related challenges within schools participation was down but the outstanding reputation of our Challenge as being well-organized with quality judges meant that we could serve as a lifeline to the region. We offered opportunities and awards for students in addition to a chance to compete in the Illinois Junior Academy of Science (IJAS), the Regeneron International Science and Engineering Fair (ISEF), and the Regeneron MASTERS. All of these fairs were even more accessible thanks to virtual designs and the STEM Center was part of making virtual plans for the IJAS 2021 fair. The STEM Center's plan and implementation for a virtual fair was also the basis for an article which was accepted by the NSTA Science Scope journal.

The STEM Center completed the third year of our Research Experiences for Undergraduates, funded by the National Science Foundation, and successfully implemented the final year of programming. Students from the 2019 submitted abstracts to the Mississippi River Research Consortium (MRRC), all of which were accepted. Unfortunately, due to the pandemic, the 2020 MRRC was cancelled. The 2019 cohort submitted their abstracts for the 2021 virtual MRRC. All of their submitted abstracts have been accepted.

STEM Center and SIUE faculty have partnered with the Southern Illinois University Carbondale STEM Center to hold a series of professional development opportunities to support Illinois science teachers as they develop assessment items for the state-level Illinois Science Assessment (ISA) test. The partnership brings together SIUE and SIUC faculty with expertise in STEM and STEM education with southern Illinois K-12 teachers. The first year of implementation resulted in several items that appeared on the 2020 ISA.

The STEM Center implemented the second and final year of student programming associated with a National Science Foundation-funded STEM+C award in partnership with the East. St. Louis

Christian Activity Center, the iBIO Institute EDUCATE Center, and SIUE's Department of Computer Science. The STEM Center integrated computational thinking into an established, rigorous STEM curriculum designed for elementary school youth, and we continue to refine and finalize the four units and prepare them for dissemination. Funds from this program continue to support STEM Center Research Fellow Henriette Burns, who is leading the research on the new curriculum. Ms. Burns brings expertise as a math and science education researcher to the project, as well as a passion for supporting women and other underrepresented groups in STEM. She coordinated several "Meet & Greet" events, allowing the girls in the program to meet and talk with local women in STEM fields.

In order to continue safely supporting educators in our communities, the STEM Center staff consulted with the IDPH and CDC guidelines to implement a regular sanitation protocol for equipment and space usage. This included UV and steam sanitization of all robotics, glassware and goggles that were going to be used in demonstration and small class experiments. Recognizing that the majority of educators were not able to do in person learning or were observing stay at home quarantine, the staff at the STEM Center fast tracked moving curriculum normally available physically in the library to a downloadable format on our website. All books were added to the online inventory as well to reduce the time teachers needed to allocate to being in person in the resource library.

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

(1) Support for SIUE Campus Priorities

- (a) Prepared and Committed Students: The center provides work and internship experiences in STEM for undergraduate and graduate students, and in collaboration with academic departments provides undergraduate scholarships through the NSF Noyce programs. Financial support through scholarships and internships increases the likelihood of retention and graduation of STEM students. The Center's GEOPATHS program provides undergraduate research experiences, internships, professional skills training, and mentorship for undergraduates who identify as underrepresented in the geosciences. Undergraduate research is one of the predictors for retention and success for students who are underrepresented in STEM.
- (b) Innovative High-Quality Programs: The STEM Center is nationally recognized for the quality of its programs and Director Locke has a leadership position in the National Network of STEM Education Centers. The center consults with SIUE faculty to improve their teaching, and provides instructional support for science content courses for pre-service teachers. The STEM Faculty Fellows Program enables faculty to improve undergraduate education at SIUE by testing innovative approaches to instruction, which in turn helps improve retention.
- (c) Dedicated Faculty and Staff: The center collaborates with and supports faculty members on grant applications and promotes interdisciplinary research projects, which are a priority for federal funding agencies. The center serves as a partner for broader impacts work required for National Science Foundation proposals, increasing competitiveness of proposals submitted by science and engineering faculty. We also present and publish

research in collaboration with faculty and connect faculty with opportunities for community engagement with schools, youth organizations, and the general public.

- (d) Outreach and Partnerships: The center is a leading outreach organization on campus. In addition to youth programs, we provide teacher professional development and equipment loans through the Resource Center. We partnered with numerous external organizations in FY20, including the Madison County Housing Authority, Madison School District, Girl Scouts of Southern Illinois, Boys and Girls Clubs of Bethalto, and Watershed Nature Center. Director Locke writes a monthly column on education for the local newspaper, *The Edwardsville Intelligencer*, to raise awareness of the importance of STEM in the broader community.
- (e) Physical and Financial Stability: The center has a high return on investment from grant funding relative to state support of center staff. Grants provide indirect cost recovery for SIUE and the center. Fee-based programs partially support a center staff member, who in turn provides instructional support services to SIUE faculty and students. Central coordination and promotion of materials for loan reduces costs to academic departments.

(2) Support for IBHE State Goals

- (a) Increase Educational Attainment: The center is directly addressing the STEM workforce pipeline in Illinois by providing instructional supports to improve student outcomes at both the K-12 and undergraduate levels. We help improve academic preparation and increase motivation in STEM so that Illinois students successfully transition from high school to higher education, and into careers.
- (b) Improve College Affordability: Center programs provide scholarships, internships, and graduate assistantships through grant awards. Center Director Locke was one of the lead writers for the NSF Noyce grants, which will provide \$1.2 million in funds deposited directly into SIUE Bursar accounts for student scholarships.
- (c) Strengthen Workforce Development: The center has a strong focus on supporting evidence-based, hands-on training for future science and math teachers. Our work, in partnership with the School of Education, Health, and Human Behavior and College of Arts and Sciences, increases the number of highly qualified teachers in Illinois, with a particular focus on preparing teachers who will be successful in high-needs school districts. The GEOPATHS program is increasing undergraduates' awareness of geoscience career pathways and providing training to create a more highly skilled geoscience workforce.
- (d) Link Research and Innovation to Economic Growth: Involvement of STEM Center faculty and staff in scientific and engineering research proposals increases SIUE's competitiveness for national funding in basic and applied research that fuels new discoveries with commercialization potential. Outreach and evaluation sections written by center faculty and staff consistently receive positive reviews.

11.4 Evidence of Support for Center/Institute Objectives

(briefly provide any evidence of the center/institute’s support for the unit’s objectives in this year – see 9.3 above)

Objective 1: A primary objective is to facilitate interdisciplinary grant applications. We use our experience to strengthen grant applications and pursue a range of research project types and topics. In FY20 we partnered with 8 SIUE departments/units for submission of \$1.8 million in internal and external proposals (Table on next page).

Internal Proposals		
CAS Targeted Funding Initiative	Environmental Sciences	\$9,743
<i>Internal total</i>		<i>\$9,743</i>
External Proposals		
O’Fallon Township High School/Department of Defense (PI Locke)		\$33,100
National Science Foundation (PI Bracey)		\$20,588
National Science Foundation (PI Locke)	Graduate School	\$205,223
Institute of Heritage Education (PI Colaninno)		\$1,000
SIUC/Illinois State Board of Education (PI Colaninno)	Geography, Mechanical Engineering	\$90,721
National Science Foundation (Co-PIs Colaninno, Locke)	Civil Engineering, Environmental Sciences, Geography	\$1,000,000

National Science Foundation (Co-PI Colaninno)	Anthropology	\$244,160
National Science Foundation (Co-PI Locke)	Mechanical & Mechatronics Engineering, Computer Science, Electrical & Computer Engineering	\$200,000
<i>External total</i>		<i>\$1,794,792</i>

Objective 2: In FY20 the Resource Center provided materials loans and consulting services that impacted approximately 4,200 STEM learners.

Objective 3: The STEM Center has ongoing participation on the project leadership team of the NSF-funded IFLIP project (PI Chaya Gopalan). This project is developing and studying implementation of flipped teaching in multiple STEM courses across campus in order to increase use of student-directed learning in STEM instruction. STEM Center faculty contributed to IFLIP research and publications in FY20.

The Center's Faculty Fellows Program enabled improvements in undergraduate education at SIUE by testing two innovative approaches to instruction: Dr. Nima Lofti of the Department of Mechanical Engineering promoted the use of open-source hardware and software platforms to make these sources more available to students. Dr. Kathleen Vongsathorn of the Department of Historical Studies researched the integration of STEM and history in undergraduate curriculum.

11.5 Evidence of Organizational Effectiveness

Organizational Effectiveness in achieving predetermined goals

Metrics for FY20 are difficult to assess because of the major disruption caused by the pandemic. Many conferences were cancelled, so we did not reach our target for FY20; however, we expect the FY21 conference presentations to increase because of the affordances provided by the virtual format. Our lending services and teacher professional development also decreased because we were forced to close the STEM Resource Center due to the pandemic. On the other hand, our grant proposal submissions and peer-reviewed article submissions exceeded targets, in part because these writing-intensive activities could continue during work from home.

Public Service and Instruction

The STEM Center created guidelines and detailed instructions for 42 total weekly STEM@Home activities at three grade levels (elementary, middle, high school) so that families could support their children's STEM learning and engagement during the COVID-19 pandemic.

RESOURCES: SIUE Center for STEM Research, Education, and Outreach

Financial Resources	FY20	FY19	FY18	FY17	FY16	FY15
Revenues						
State Appropriations	283,275	283,642	212,239	215,000	213,655	253,000
Course Specific Fees	3,975	4,775	4,775	4,825	5,125	5,000
Salary Transfer	1,957	12,128	0	423	15,225	15,225
Non Recurring Funds	28,483	90,000	0	0	0	0
Income Fund	30,872	45,833	44,664	91,572	88,917	57,799
Grants & Contracts	1,229,674	674,371	928,636	760,378	2,381,064	633,909
ICR	156,526	75,281	140,886	353,790	171,871	130,542
Foundation	0	300	1,120	23,493	22,014	72,171
Total Revenues	1,727,292	1,186,330	1,332,320	1,449,482	2,897,871	1,168,345
Expenditures*						
Salaries	527,316	492,476	367,509	482,333	464,603	433,169
Grant Collaborators	67,557	43,751	83,006	57,498	39,905	15,995
Faculty Fellow		0	4,899	0	0	0
Graduate Assistant	115,435	46,751	31,867	52,768	44,191	41,256

Student Interns		0	(59,665)	4,871	26,304	24,000
Student Wages	13,643	12,637	12,501	12,486	11,393	12,898
Travel	11,141	21,251	9,7884	22,588	20,856	28,954
Equipment	40,994	6,936	(1,749)	20,731	7,598	4,269
Commodities	12,239	19,744	8,563	21,322	17,374	21,014
Contractual Services	145,802	164,319	4,500	962,106	262,858	136,831
Awards	511	21,150	(344,172)	64,050	24,678	19,600
Scholarships	69,200	115,000	152,510	90,533	148,747	172,500
Automotive	278	720	2,398	1,184	111	817
Telecommunications	4,353	4,747	4,311	5,092	4,750	4,334
Benefits	93,949	73,353	92,992	125,457	89,526	60,839
Participant Support	77,286	77,088	882,832	27,528	24,646	0
Non Mandatory Transfers	83,930	170,422	4,409	70,159	39,623	0
Total Expenditures	1,263,633	1,270,315	1,247,945	2,020,724	1,227,164	976,476
Revenue Minus Expenditures	463,659	(83,985)	84,375	(571,242)	1,670,706	191,869

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

In FY17 the Center had high expenses associated with grant funds received as revenue in FY16. This is the reason for the large surplus in FY16, followed by a deficit (on paper) in FY17. Note that revenue still exceeds expenditures over those two years.

Staffing (Full Time Equivalent)	FY20	FY19	FY18	FY17	FY16	FY15
Tenured/Tenure-Track Faculty	1	1	1	1	1	1
Research Faculty	3.2	2.2	1.7	1.2	2	1.7
Non Tenure-Track Faculty	1	2	1	1	0	0
Staff	3	3	3	5	5	4
Total Staffing	8.2	8.2	6.7	8.2	8	6.7

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	Southern Illinois University Edwardsville
2.	Center/Institute	Center for Predictive Analytics
3.	Date	March 10, 2021
4.	Director	Carolyn Butts-Wilmsmeyer
4.1	Telephone	618-650-2682
4.2	E-mail	cbuttsw@siue.edu
5.	Year Established	April 30, 2020 (received permanent approval from IBHE) 2018 (established through Chancellor's Innovation Proposal)
6.	Illinois State Statute (if pertinent)	N/A
7.	Reporting Unit	Graduate Studies and Research
8.	Type	Activity (check all that apply)
	Instructional	
	Research	X
	Public Service	

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

The Center for Predictive Analytics was founded in response to a growing need for data science expertise across all sectors. The Center fosters relationships with faculty and external partners across a broad range of disciplines to support the application and development of state of the art mathematical, statistical, computational, and machine learning techniques to meet complex data challenges and train the next generation of data scientists through hands-on experience.

9.2 Mission

The Center for Predictive Analytics is dedicated to the development and novel application of innovative data analysis solutions that enable our industry, government and academic partners to utilize their data to its fullest potential while also providing real-world training opportunities to the next generation of data scientists.

9.3 Objectives

Long-Term Objectives (with First-Year Outcomes)

1. Foster multidisciplinary and multi-institutional collaborations that promote data science and data-driven research through externally and internally funded projects.
2. Create the computational infrastructure and access to computational expertise necessary for the successful pursuit of external funding opportunities by SIUE faculty.
3. Support student retention and academic success through predictive modeling and the development of intervention strategies.
4. Provide real-world experiences and mentorship to students through externally funded research partnerships.

Additional Long-Term (Not First-Year Objectives)

5. Promote the ethical use of predictive analytics on campus and in the St. Louis region.
6. Bring together academic researchers, educators, and industry experts to share ideas through regional workshops, seminars, and conferences.
7. Develop partnerships with local businesses and government agencies to produce high impact community engagement products.

10. Advisory Board

10.1 Advisory Board - Membership

<p><u>Internal Members</u> Greg Budzban, Professor Emeritus, Department of Mathematics and Statistics Igor Crk, Chair and Associate Professor, Department of Computer Science Andy Neath, Professor, Department of Mathematics and Statistics Jon Pettibone, Professor, Department of Psychology Jerry Weinberg, Associate Provost for Research and Dean of the Graduate School, Professor of Computer Science</p> <p><u>External Members</u> Alex Burkhart, Director of Marketing, America’s Central Port Patty Hagen, President and Founding Executive Director, T-REX Innovation Center Chris Rigdon, Research Statistician, DuPont Paul Sorenson, Director, Regional Data Alliance</p>
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10.2 Number of Meetings (In This Year) 2

11. Annual Performance

11.1 Performance Measures *

Note: Center Director hired in August 2019. FY 2020 measures reflect first year targets and largely involves the development of infrastructure.

Measure	Target for Year	Results in Year
1. Develop grant proposals as PI and/or collaborator with SIUE or external partners	2	11
2. Submit peer-reviewed articles for publication	2	3
3. Become formally recognized as a research center by the IBHE.	1	1
4. Establish physical infrastructure of Center	1	1
5. Assist SIUE Office of Enrollment Management with student retention and success projects, including presentation of results to campus.	1 initiated	1 completed
6. Train students in data science through experiential learning opportunities.	1 grad, 3 undergrad	1 grad, 7 undergrad
7. Promote data literacy and the ethical use of data science through the development continuing education courses in data science.	1	5
8. Promote data literacy and the ethical use of data science through the development of campus workshop series.	3 workshops	7 workshops
9. Disseminate Center for Predictive Analytics activities through press releases.	3	5
10. Create website to more easily interact with the SIUE and St. Louis community.	1	1

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

11.2 Major Accomplishments (In This Year)

The Center for Predictive Analytics (C-PAN) was formally established in FY20. Although the Center was created in FY19 through the Chancellor's Innovation Fund at SIUE, the Center was not activated until the hiring of its inaugural director, Dr. Carrie Butts-Wilmsmeyer, in August 2019. As reflected in the first-year annual performance measures, the first-year goals of the Center were largely related to the development of infrastructure for future research and campus engagement activities. In October of 2019, C-PAN submitted its request for Approval of New Programs and Reasonable and Moderate Extension (RME) to SIUE's Centers and Institutes Review Committee for preliminary evaluation of the request for formalizing the new center. Following approval, the RME was submitted to the Illinois Board of Higher Education (IBHE) for evaluation and approval. Although the COVID-19 pandemic delayed the meeting of the IBHE and the evaluation of the request, official approval and recognition of C-PAN as a research center by the IBHE was granted in April 2020.

In addition to formal recognition of the Center, the first-year infrastructural goals also included the creation of the C-PAN research space and communication infrastructure. In January of 2020, the rooms that would eventually become C-PAN's conference and research space were transferred to C-PAN for renovation and development. This renovation and infrastructure investment included: equipping research facilities with over \$16,000 in research computers and computational hardware, including two 64GB high-performance desktops; installing workstations for research students; updating internet/network connections to transform a former classroom into a research space; and the creation of conference and lobby space. This is in addition to partnering with SIUE's Information Technology Services (ITS) to secure \$395,580 in NSF funding for the purchase of new campus servers for SIUE. Additionally, to help promote Center relations both at SIUE and to foster relationships with external partners, the Center worked with SIUE's Marketing and Communications team to create C-PAN's website, complete with an interface designed to promote accountability of the Center and ease of interaction with potential partners. <https://www.siu.edu/cpan/>

The Center for Predictive Analytics was awarded a Research and Extension Experiences for Undergraduates award from the USDA entitled *Preparing Undergraduates for New Frontiers in Data Analysis: Experiential Learning in Applied Statistics (ELIAS) Fellows*. The purpose of this program is to dually immerse students in hands-on research in the life science while concurrently exposing them to applied data analysis. In doing so, the goal of this fellowship is to help promote data literacy in the scientific workforce, even among scientists whose primary discipline is not data science. This award, in the amount of \$314,836, technically did not begin until August 2020. However, to provide the four student fellows involved with this project with the best experience possible and to accommodate for COVID-19 mitigation measures, eight faculty at three different public universities in Illinois and one industry partner worked to provide four undergraduate students with research experiences in the summer prior to the beginning of the award, as their schedules allowed. In doing so, all four of the first cohort of students have subsequently either received job offers or have received competitive graduate school offers, even during the suboptimal economic conditions following the COVID-19 pandemic.

Given C-PAN's research focus, a key first-year goal was to understand the needs of SIUE's faculty in regards to data science research support. To this end, C-PAN independently and later in conjunction with ITS conducted two surveys to identify key research needs of faculty across campus. Those needs identified included assistance with navigating the data science landscape and the tools available, helping faculty analyze results, and offering workshop events to educate faculty on what tools they should (and should not) use to analyze their data. These surveys helped to shape the collaborative grant proposal *CC* Compute: SIUE Campus Cluster* from NSF that will enable the purchase of server infrastructure in FY21, and this information also helped guide conversations that led to the development of faculty workshop series in data science in FY21.

In addition to research, C-PAN was created with a vision of supporting educational efforts and student success. In FY20, C-PAN conducted a campus-wide and long-term data analysis using machine learning techniques to identify key predictors of student success. Among those indicators were high school GPA, level of unmet need, and ACT. The timing of this analysis was impeccable, given that the COVID-19 pandemic was limiting the ability of graduating seniors to take the ACT, and many colleges were becoming test optional. Using this information, partnering with SIUE's Enrollment Systems, Research and Analysis (ESRA) group, we used machine learning models to identify the critical high school GPA value that was indicative of a heightened probability of success.

Additionally, C-PAN formed a working relationship with an SIUE alumni who is now employed by Google, and that alumni negotiated with Google to donate AIY kits for students to help promote the use of artificial intelligence. These kits, following the COVID-19 pandemic, will be devoted to a workshop that enables high school students to learn applications of artificial intelligence (AI) and machine learning by working with voice and/or optic sensors that have been included with basic recognition classifiers that they can train. Secondly, C-PAN began working with the Office of Online and Educational Enrollment (OEO) to identify needed professional development courses in data science. In FY20, C-PAN and the OEO worked together to create and approve five new non-credit professional development courses in data science that will be offered beginning fall 2021.

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

(1) Support for SIUE Campus Priorities

- a. Prepared and Committed Students: The Center, through experiential learning and applied analysis, provides real-world data science experiences for undergraduate and graduate students. These students come from all departments at SIUE, and collaborative discussions with other units on campus are underway to identify potential mechanisms to help support student research.
- b. Innovative High-Quality Programs: The Center partners with ESRA and other administrative units on campus to identify student needs across campus and devise creative solutions for needed student support. The Center also works with SIUE faculty and staff to provide data science resources, including training resources and

information that helps to promote data ethics and data literacy at SIUE and beyond. In an ever-progressing digital world, it is our intention that access to training and these educational resources will enable our faculty to help prepare students for the digital landscape of their future careers. Students also have the opportunity to gain work experience while in college, and they can receive credit for this work through a number of mechanisms.

- c. **Dedicated Faculty and Staff:** The Center collaborates with faculty from all units on campus, including in the areas of grant development and scholarly support. This Center helps to support interdisciplinary research projects, including those with “Big Data” or data science components. The availability of C-PAN’s resources to our faculty helps to increase the competitiveness of research proposals submitted by faculty at SIUE by demonstrating to funding agencies that faculty have access to the necessary facilities and personnel to complete proposed work in data science.
- d. **Outreach and Partnerships:** The Center has established partnerships with multiple academic institutions, industry partners, and government partners in Illinois and the St. Louis Metropolitan region. These partnerships are centered around the goal of providing real-world data science experiences for our students at SIUE and collaborating institutions, as well as supporting data literacy and knowledge through non-credit educational offerings.
- e. **Physical and Financial Stability:** Although C-PAN is in its first year, the Center has already secured (funding beginning in FY21) \$1,213,529 in federally funded awards and \$35,000 in contracts. Grants provide indirect cost recovery for SIUE and the Center. Furthermore, centralized access to data science and statistical consulting support on campus reduces support services costs to academic departments, as well as to faculty and their research students.

(2) Support for IBHE State Goals

- a. **Increase Educational Attainment:** This Center is directly working to address educational attainment discrepancies among underserved populations, including minorities, women, and students from impoverished backgrounds, among others. In identifying critical time points for intervention and by mining data to understand what interventions are most likely to lead to success, it is the goal of C-PAN and our partners at SIUE to provide the support infrastructure needed to assist students of all backgrounds in attaining their educational aspirations.
- b. **Improve College Affordability:** Although C-PAN is a new research center, efforts are already underway to devise financial support mechanisms to improve college affordability for our students. The first of these efforts is the fellowship stipend offered through the ELIAS fellowship program at SIUE. Each student involved in the program is provided with a stipend in the amount of \$7,250 per year for two years, thereby enabling them to dedicate more time to their research and not having to worry about finding a part-time job to pay for college expenses.
- c. **Strengthen Workforce Development:** The model employed by C-PAN is that the Center acquires research projects, and then train students in different data science techniques

based on the available research projects and the interests of the students. One of the greatest critiques of data science education is that classroom exercises, while formational and important, are also too simplistic for complete preparation of our data scientists for the real-world. Classroom examples are often “scrubbed”, meaning that the datasets used are too idealistic for what is commonly encountered in the real-world. The Center strives to immerse our students fully, providing them with access not only to the analytical techniques often employed during data analysis, but also the tools needed to prepare data for analysis and to mitigate potential sources of error.

- d. Link Research and Innovation to Economic Growth: The availability of C-PAN facilities and personnel increases SIUE’s competitiveness for federal and contractual funding in applied research and educational proposals. Selection for funding for these proposals creates potential for innovations, which in turn creates potential for commercialization. Furthermore, and perhaps more importantly, Illinois and the St. Louis bi-state region have historically been technology hubs in the nation, and appear to be advancing in that arena. To support that continued growth, it is vital that the emerging workforce be trained in the area of data science, which C-PAN strives to do through experiential learning opportunities for its own students and through access to data science resources for the greater SIUE community.

11.4 Evidence of Support for Center/Institute Objectives

Objective 1: Pursuit of Multidisciplinary and Multi-Institutional Funded Projects

A primary objective of C-PAN is to facilitate interdisciplinary grant and contractual applications. Data science is a need in all disciplines, and we use our expertise to assist all faculty and students across a broad range of projects. In FY20, we partnered with 11 departments/units at SIUE, as well as 10 external organizations, for submission of \$7.5 million in external proposals. This does not include collaborations in which C-PAN personnel served as key personnel on proposals.

Program Area/Sponsor	Partnering Units/Institutions	Amount
Illinois Corn Growers – Multivariate Index for Soil Nitrogen Health	University of Illinois, Departments of Crop Science, Natural Resources and Environmental Sciences, and Agricultural and Consumer Economics; Illinois Corn Growers	\$10,000
NSF, Science of Learning, Discovery Research K-12	University of Minnesota, University of Illinois	\$4,000
Bill and Melinda Gates Foundation	SIUE Departments of English and Sociology; Office of Online and Educational Outreach	\$99,998.83
NSF, CC* Compute	SIUE Information Technology Services (ITS)	\$395,580
USDA-NIFA, EWD-REEU	University of Illinois, Northeastern Illinois University, Illinois State	\$314,835.89

	University, Parkland Community College	
NSF and USDA – AI Institute (subaward to Washington University in St. Louis)	Washington University in St. Louis and Donald Danforth Plant Science Center, SIUE Department of Geography	\$699,999.14
USDA-NIFA-SCRI	SIUE Departments of Biology, Geography, Environmental Sciences, and Mechanical Engineering; University of Kentucky; Donald Danforth Plant Science Center; University of Wisconsin River-Falls	\$3,461,716.61
USDA-NIFA-Foundational and Applied Science	University of Illinois	\$499,113
Illinois Graduated Income Tax Study	Berkeley Research Group; SIUE Department of Economics	\$25,000
National Institute of Justice	Office of Online and Educational Outreach, Departments of Chemistry and Anthropology; SIUE Police Department	\$1,999,289.75
Nutrient Research Council (subaward to ISU)	Illinois Statue University, Western Illinois University	\$67,833.77
External Total		\$7,577,365.44

Objective 2: Create Infrastructure and Access to Expertise

In FY20, C-PAN was formally recognized as a research Center by the IBHE, converted and renovated a space in Science East to become a research workspace and conference room, outfitted that space with high-performance computers, surveyed faculty to better understand what programmatic offerings and expertise are most needed on SIUE’s campus, and created a website with an interface that allows not only for the dissemination of resources but also the opportunity for internal and external partners to communicate with the Center.

Objective 3: Student Retention

In FY20, C-PAN worked together with ESRA to aggregate, format, mine, and model one-year student retention data to understand what factors are most likely to lead to student success. The plan is to eventually extend this analysis to two-year retention, three-year retention, and graduation outcomes, as well as to break this analysis into segments to examine specific student populations. Not only did we initiate these projects, as was our goal for the year; we successfully completed the first one-year retention analysis for SIUE students across multiple cohorts. In doing so, this collaborative team determined a high-school GPA cutoff that could be used in lieu of an ACT score, at least while the COVID-19 pandemic has created issues with access to testing. Most importantly, we identified critical thresholds in unmet need which correspond to a much-reduced likelihood of students returning after their first year and then graduating.

Objective 4: Real-World Experiences and Mentorship for Students

In addition to the four ELIAS undergraduate fellows, C-PAN hired one graduate student and three undergraduate students to help analyze data for external projects in FY20. These students gained experience working with real-world datasets and in generating reports for collaborators which helped to communicate complex data science findings. All students were paired with at least one mentor to help guide them with research, but to also help support their educational careers through the formation of a trusting mentor-mentee relationship in which students could ask a variety of educational and career questions.

11.5 Evidence of Organizational Effectiveness

Organizational Effectiveness in Achieving Predetermined Goals

As shown in Section we met or exceeded all targets for our 10 measures. Given that FY20 was the first year of C-PAN’s activity, most of the metrics were devoted to measuring infrastructural development. C-PAN was formally recognized by the IBHE, and also now physically exists on campus at SIUE. Furthermore, the infrastructure building undertaken is reflective of the expressed desires of SIUE’s faculty, thereby creating centralized resources that meet the needs of a large portion of the campus community.

Research & Grant Applications

Revenue collected through grants and contracts with C-PAN either as a primary unit or a collaborating unit was \$538,513 in FY20, with additional funds being secured in FY20 for initial funding in FY21. Although the Center is very new and is just beginning its research career, C-PAN has already been presenting research through publications and presentations.

Year	# Scholarly Publications	# Scholarly Presentations	FTE Research Faculty
FY20	3	1	1.0

12. Institutional Assessment

12.1 Date of Last Review NA – Center Established in FY2020

12.2 Decision at Last Review Center/Institute in Good Standing
 Center/Institute Flagged for Priority Review
 Center/Institute Suspended

12.3 Explanation Center established in FY2020. Has not yet undergone formal review.

RESOURCES: SIUE Center for Predictive Analytics

Note: Center funds did not begin until FY2020. Additionally, although grant funds may have become available in FY21, their amounts are shown based on the years for which budgeted expenses occur (e.g. \$499,113 was received from the USDA in FY20, but the first expense was not expected to occur until July 2020, or FY21).

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016
Revenues					
State Appropriations	154,168	0	0	0	0
Income Fund	0	0	0	0	0
Grants & Contracts	26,500	0	0	0	0
Salary Transfer	0	0	0	0	0
Non-Recurring Funds	0	0	0	0	0
ICR	0 Transferred in FY21	0	0	0	0
Total Revenues	180,668	0	0	0	0
Expenditures*					
Salaries	103,630.77	0	0	0	0
Graduate Assistants	2,322.54	0	0	0	0
Student Wages	0	0	0	0	0
Travel	0	0	0	0	0
Equipment	28,275.07	0	0	0	0
Commodities	954.88	0	0	0	0
Contractual Services	0	0	0	0	0
Awards	0	0	0	0	0
Scholarships	0	0	0	0	0
Telecommunications	275.00	0	0	0	0
ICR	3,975.00				
Benefits	4,725.93	0	0	0	0
Participant Support	0	0	0	0	0
Non-Mandatory Transfers	23,000	0	0	0	0
Total Expenditures	167,159.19	0	0	0	0
Revenue Minus Expenditures	11,186.81	0	0	0	0

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	1	0	0	0	0
Staff	0	0	0	0	0
Graduate Students	0.25	0	0	0	0
Total Staffing	1.25	0	0	0	0

CENTERS AND INSTITUTES

ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	<u>Southern Illinois University Edwardsville</u>
2.	Center/Institute	<u>SIUE East St. Louis Center</u>
3.	Date	<u>March 15, 2021</u>
4.	Director	<u>Timothy Staples, EdD</u>
4.1	Telephone	<u>618-482-8326</u>
4.2	E-mail	<u>tstaple@siue.edu</u>
5.	Year Established	<u>(1966)</u>
6.	Illinois State Statute (if pertinent)	<u>(if created by Illinois state statute, list the specific statute by number and title; otherwise, list N/A)</u>
7.	Reporting Unit	<u>Office of the Provost and Vice Chancellor for Academics</u>
8.	Type	Activity (check all that apply)
	Instructional	<input checked="" type="checkbox"/>
	Research	<input type="checkbox"/>
	Public Service	<input checked="" type="checkbox"/>

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

The SIUE East St. Louis Center has provided support and services to youth, adults and families in the St. Clair and Madison Counties for more than 50 years. The support and services are implemented through Center-base programs such as Head Start/Early Head Start, the SIUE 5 High School TRIO/Upward Bound programs, a Veterans TRIO/Upward Bound, Project Success (a DCFS Program), Library Services, High School Leadership Program, and the Performing Arts. Additionally, the SIUE Charter High School, which is managed by the School of Education, Health and Human Behavior, is housed at the Center.

9.2 Mission

The SIUE East St. Louis Center is dedicated to improving the lives of families and individuals - from pre-school through adult. The program and services are designed to offer opportunities to achieve and expand access to general education, higher education, and career advancement.

9.3 Objectives

Through program and services, the SIUE East St. Louis Center:

- Provides educational classes for student from pre-school age to adult.
- Assist high school in college preparation.
- Coordinate and implement adult training and certification programs which support workforce development.
- Collaborate with the Illinois Community College Board and its member institutions to provide support and provide post-secondary education and training opportunities.
- Provide library and technology support services for general members of the community.

Provide workshops and seminars for the community which promote physical, mental and financial well-being.

10. Advisory Board

10.1 Advisory Board - Membership

Plans are awaiting revisions/approvals from the Provost and Vice Chancellor for Academics, as well as the Chancellor.

10.2 Number of Meetings (In This Year) 0

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
Maintain compliance for existing grants	100%	Due to COVID-19, several grant requirements were suspended or adjusted by the issuing agencies. All grants are in good standing
Increase the number of students being served	Accomplish maximum enrollment for all High School Upward Bound TRIO and Veterans Upward Bound TRIO.	Enrollment in all programs have decreased during the COVID-19 pandemic.
Increase grants awarded to SIUE East St. Louis Center		COVID-19 suspended plans for new grants.
Increase SIUE East St. Louis Center presence as a leader in the East St. Louis community	Increase involvement in community coalitions	The SIUE East St. Louis Center became involved in an East St. Louis City-based community volunteer efforts.

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

11.2 Major Accomplishments (In This Year)

<p>Head Start/Early Head Start</p> <ul style="list-style-type: none"> • Development of a staff wellness plan that supports our children, families and staff attending both managed and child care collaboration sites • A strengthened relationship and communication with child care collaboration partners that provide classroom services to Head Start/Early Head Start children and families • For the second year in a row, parent Courtney Parker was named the Illinois Head Start Association Parent of Year • With the guidance of STGI T/TA support, we were able to make several program-wide compliance improvements in areas of Program Management and Quality Improvement and Classroom Exploration/Effective and Intentional Teaching Practices
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- Provided meals and PPE supplies to Head Start/Early Head Start families and child care collaboration partners during the pandemic

Project Success

- Project Success continues to promote academic and social-emotional achievement through providing resources to 22 families.
- On a biweekly basis PS staff provides food, homework packets, and social emotional tools that families could use in their everyday life.

Building Futures

- Building Futures have made some changes to increase participation and better service each individual as they move forward in all endeavors pertaining to education, training, career placement and exiting DCFS.
- We now offer training and one on one individualized mentorships to help students succeed in all areas.
- We are constantly working on bringing additional resources as we continue to work with SWIC, Community Lifeline and other organizations.
- These entities have been tremendously helpful in helping BF students to obtain housing, GED completion, enroll in Associate programs and certification licensure.

East St. Louis Based Upward Bound Programs

- Awarded a five-thousand-dollar award from the Illinois Department of Transportation.
- Student selected to attend a study abroad program this summer.

Veterans Upward Bound

- Since January of 2021, we have seen more than fifteen new participants and all are fully participating.
- We have developed a mobile skills lab in order to bring our services to populations that cannot travel here (Salvation Army Veterans Residence and the Joseph Center), our resource center on campus is staffed and ready to provide service, we have formed a Women Veterans Group in Partnership with staff from the St. Louis Vet Center that will resume meeting as restrictions to groups are lifted.

Collinsville Upward Bound- Mathematics & Science

- Successfully launched program in a new school district utilizing a Memorandum of Understanding I created that expressed the needs of our program, and our desires to be effective change agents. The district agreed to all requests (own classroom, computers, keys to access school building, internal email addresses to communicate with staff and students, access to Skyward to retrieve school data, invitation to school functions and staff meetings and professional development in order to build rapport/recruit, and establish a presence within the district/school, etc...)
- 100% of all seniors in our program (this and last year) have been accepted into college

- Despite not having access to students during the first ½ of COVID-19 in 2020, we were able to successfully recruit 15 students to join during the summer. We have continued to make gains (92%) towards accomplishing our 60 student enrollment.
- We have been successful in hiring a diverse pool of employees from different genders, race, nationalities, beliefs and disciplines. Most importantly, more than ½ of my participants race are of Hispanic ancestry, ¼ are African American and ¼ are Caucasian. Our staff reflect the population that we serve, and our students are appreciative of that fact, and have shared that sentiment in verbal and written communication.
- 65% of our students have been recognized during this academic year by their teachers for being “highly engaged”.

Library/Learning Resource Center

- The LRC has grown over the last three years by implementing a children’s library, an updated smart computer lab, a new larger group room space and most recently, a reworked former group space to be utilized as a career services center when it is fully finished, to name a few transformations to the ongoing updates.
- The library has been updated with new furniture, technology, software, programs, and spaces.

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

The programmatic engagement and services in FY19-20 aimed to fulfill the mission of Southern Illinois University Edwardsville. That aim is to provide “educational opportunities that teach the values of wellness of mind, body and spirit.” Additionally, “foster personal and professional development, and provides opportunities for cultural and social interaction.”

11.4 Evidence of Support for Center/Institute Objectives

(All programs submit an extended annual report, as well as information from staff evaluations.)

11.5 Evidence of Organizational Effectiveness

All programs submit reports to granting agencies.

12. Institutional Assessment

12.1 Date of Last Review 2021 In Progress

12.2 Decision at Last Review Center/Institute in Good Standing
 Center/Institute Flagged for Priority Review
 Center/Institute Suspended

12.3 Explanation (briefly provide any explanation necessary of the institutional assessment or plans for pending program review)

RESOURCES: SIUE East St. Louis Center

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016
Revenues					
State Appropriations	740,715	827,844	732,043	683,121	814,258
Income Fund	693,896	767,558	334,743	308,885	309,370
Grants & Contracts					
Head Start/Early Program	11,873,960	11,538,375	12,060,570	11,613,514	11,245,264
Latchkey Program	0	0	0	0	-
Project Success/East St. Louis	159,529	150,435	201,234	264,919	259,259
Upward Bound (BEV)	358,262	328,858	328,858	311,492	311,492
Upward Bound (EC)	663,085	623,347	608,663	593,818	576,522
Upward Bound Math and Science Center	279,162	264,141	256,250	257,500	250,000
UB Math and Science-Cahokia & Madison	287,537	275,155	263,938	0	0
UB-ESTL High School Academy	287,537	275,155	263,939	0	0
Veterans Upward Bound	287,537	275,155	263,938	0	0
Child & Adult Food Care Program	303,290	560,329	562,978	586,489	574,111
National School Lunch Program	0	0	0	-	37,496
Summer Food Service Program	-	12,131	16,394	16,015	16,154
ISBE Healthy Communities FY18	-	22,271	22,521		
IAC-SIUE ESTLC Operating Support			2,200		
Building Futures	119,385	123,635	224,800		
Kindergarten Readiness Camp	-	36,156	56,000	65,000	0
ICCB	674,904	844,963	872,703	260,974	0
Post-Secondary Completion Strategies Program				10,000	0
Preschool for All	-	300,000	264,045	170,735	0
ESL STEM & Energy Constellation	-	366	49,011	37,500	0
Total Revenues	16,728,798	17,225,874	17,384,827	15,179,961	14,393,927
Expenditures*					
Misc**	44,272	60,005	65,444	281,592	51,881
Salaries	7,396,047	7,156,983	7,020,501	6,488,918	6,288,294
Fringes	3,740,996	3,781,576	3,728,702	3,486,176	3,434,997
Travel	20,373	41,379	30,759	29,207	27,640
Equipment	44,869	92,509	512,479	264,019	162,227
Commodities	230,331	187,770	350,054	267,269	286,244
Contractual Services	791,292	1,469,428	2,639,065	2,438,223	2,450,829
Operation of Auto	1,901,113	2,019,620	83,974	94,234	60,125
Telecommunication	71,635	66,985	230,559	118,217	144,821
Indirect Cost	523,251	886,552	1,434,447	951,934	915,400
Total Expenditures	14,764,178	15,762,807	16,095,982	14,419,787	13,822,457
Revenue Minus Expenditures	1,964,621	1,463,067	1,288,845	760,174	571,470

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

* Expenditures include stipends (TRIO); repair to Cahokia parking lot; and transfer funds to cover the Head Start fringe rate change that was not budgeted on grant.

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty (summer teaching for TRIO programs)				6	6
Staff				211	246
Total Staffing	0	0	0	217	252

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	Southern Illinois University Edwardsville
2.	Center/Institute	Environmental Resources Training Center
3.	Date	3/12/2021
4.	Director	Matthew R. Maas
4.1	Telephone	618-650-2214
4.2	E-mail	mmaas@siue.edu
5.	Year Established	1967
6.	Illinois State Statute (if pertinent)	Ill. Rev. Stat., Ch. 144, Sec. 691, et seq
7.	Reporting Unit	School of Engineering
8.	Type	Activity (check all that apply)
	Instructional	
	Research	
	Public Service	X

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

The ERTC is the state of Illinois' training center for water treatment technology. The ERTC educates pre-service students enrolled in the one-year Water Quality Control Operations Program, who wish to enter the water industry. The ERTC also provides continuing education at the center and throughout the state for working operators, who are required to obtain continuing education units or wish to advance their professional certifications. Additionally, the ERTC provides services for IEPA via an interagency agreement, which include coordination of water and wastewater certification review committees, certification testing management, training of cross connection control device inspectors, and management of the cross connection control program.

9.2 Mission

The ERTC Mission is to provide quality education in water treatment technology to the people of the state of Illinois. ERTC conveys knowledge and skills to drinking water supply operators to ensure that the citizens of Illinois receive safe and reliable drinking water. ERTC also conveys knowledge and skills to water reclamation plant operators to ensure that the effluent water is of the highest quality and will not degrade the quality of our nation's water.

9.3 Objectives

Provide a comprehensive one-year training program with the Water Quality Control Operations Program for pre-service students.

Provide continuing education for in-service students.

Ensure the availability of continuing education to all operators throughout Illinois and Missouri.

Produce up-to-date training for water quality industry.

Develop online/virtual courses to disseminate the knowledge and skills needed in the water treatment industry to operators and the general public.

Continue to provide statewide training for the mandated Cross Connection Control Device Inspector (CCCDI) program. By Illinois statute, ERTC is the only institution that can provide the required training for CCCDI (Title 35, Subpart F, Chapter II, Part 653.802 para. F, sub para. 2.) (Nov. 1, 1985)

10. Advisory Board

10.1 Advisory Board - Membership

1. Dr. Jianpeng Zhou Professor of Environmental Engineering, School of Engineering, SIUE
2. Dr. Zhi-Qing Lin Professor of Environmental Sciences, College of Arts and Sciences, SIUE
3. Edward Matecki Assistant Director (Retired), Facilities Management, SIUE
4. Martin Reynolds Public Works Director (Retired), Roxana, IL
5. Tim Albers Water Utility Operations Manager, HMG Engineers Inc.
6. Patti Schaake Chief Operator (Retired), Edwardsville, IL
7. Penny Pinkstaff Public Works Director, Lebanon, IL
8. Becca Coyle Plant Manager, Metropolitan Sewer District, St. Louis, MO
9. John Leezy Utility Superintendent, Glen Carbon, IL

10.2 Number of Meetings (In This Year) 0 (Meeting cancelled due to COVID pandemic)

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. Maintain enrollment in one-year program between 20-30 students.	20 to 30	20
2. Maintain a pass rate of greater than 80% on the state certification exams.	80%	80%
3. Maintain excellent job placement for graduates.	80%	78%

* Targets listed are internal goals. Required external targets for Madison County WIOA funding are as follows: Job placement by 2nd quarter – 74%; Certificate attainment – 66%. Both goals were achieved.

11.2 Major Accomplishments (In This Year)

The COVID pandemic that began in March of 2020 had a huge impact on the Environmental Resources Training Center. Due to the pandemic, the Water Quality Control Operations Program was conducted virtually for the final two months. Almost all internships were delayed and some were canceled, which caused a scramble to acquire new internships in order for the students to complete their program requirements. Additionally, all external courses were canceled through the end of the fiscal year. The ERTC is heavily dependent on the revenue of external offerings to maintain a healthy budget.

At first glance, the revenues for the ERTC look extremely strong (an increase of \$108,250 year-over-year). However, a large amount of revenue was buoyed by grant funds associated to the large scale tank rehabilitation project. This is evident by the net revenue (revenue minus expenditures) at -\$46,887. This total represented a year-over-year decline of \$156,625 in net revenue. The previous years helped to maintain a strong balance sheet prior to the pandemic. This provided a safety net that allowed the ERTC operate continuously despite the lack of external revenue.

One positive aspect of the pandemic is that it allowed the ERTC to begin shifting focus from an in-person approach to a virtual approach. During the stay-at home order, ERTC staff developed three correspondence courses and ten virtual courses. All will be offered in FY21. This should aid in supporting revenue for external courses in the event that any future lockdowns occur.

As part of the Interagency Agreement between the IEPA and ERTC, Part 5 was added and approved for project improvements. This grant cycle allowed for a tank rehabilitation project. The tanks in the ERTC pilot plant are the original tanks and were exhibiting signs of potential failure (rust, leaks, lost paint, warping). The grant was written to provide up to \$273,000 for a tank rehabilitation. The bid was awarded to RP Coatings and the project took place from August-November of 2019. The vendor did a phenomenal job on the rehabilitation and painting of the tanks. This project should allow for another 30 years of tank life. The final bill came in just under the \$273,000 approved budget.

In collaboration with the Metropolitan Sewer District (MSD) of St. Louis, the ERTC was able to offer its first full scholarships to students in FY20. Previously, the MSD scholarships were partial scholarships (\$3,500/year) that were offered to minority candidates in the MSD service area. The scholarship was increased to a full scholarship (\$9,950/year) plus a \$1,000 stipend awarded to the students in FY20. It was also opened up to minority and female students living outside of the MSD service area. Two scholarships were awarded in FY20. Both organizations plan to maintain full scholarships going forward.

In a regulatory change to Title 35, Subpart F, the state of Illinois will now require all licensed Cross Connection Control Device Inspectors to complete a recertification course every three years. In the rule, it is stated that "The course must be offered by the Environmental Resources Training Center or the Agency's delegate and include a written and practical exam demonstrating competency in backflow prevention testing." The ERTC has been collaborating with facilities and ITS for the creation of this course via Blackboard and plans to implement the course in July 2021. It should provide a strong source of recurring revenue to aid in ERTC operations/enhancements.

The ERTC established a new collaborative relationship with the Illinois Rural Water Association. The ERTC staff collaborated with Dave McMillan (Training Coordinator) of IRWA to aid with presentations for continuing education to rural communities. A total of nine locations were serviced. Although the ERTC did not receive any revenue for these trainings, the workshops provided an excellent opportunity to promote the ERTC one-year program in rural areas that would otherwise receive no promotion.

In January 2020, the ERTC hosted a training session for all Illinois Environmental Protection Agency field staff. The training was arranged due to a new regulation citing the need for creation of a Nitrification Action Plan and testing for all water districts feeding chloramines. Presentations and hands-on laboratory demonstrations were performed as a train the trainer workshop for IEPA staff.

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

The ERTC has an interagency agreement with the Illinois Environmental Protection Agency (IEPA). In this agreement, the ERTC runs the Cross Connection Control Device Inspector program and the water/wastewater certification exam committee programs. Additionally, the ERTC is responsible for the grading of all Illinois certification exams in water, wastewater, and cross connection control. This agreement also provides funding for general ERTC operations, which includes salaries and equipment upgrades. The most recent IEPA interagency agreement was finalized in October 2018 and will run through September 2021. A new proposal will be drafted in the summer of 2021.

The ERTC is the IEPA designated training center for water treatment technology (drinking water and wastewater) in the state of Illinois.

The ERTC also provides support to the Illinois Pollution Control Board and the Illinois Department of Public Health on wastewater and cross connection regulations.

The ERTC supports, presents, and assists in the development of the annual conferences for Illinois Water Environmental Association (IWEA), Illinois Potable Water Systems Operators Association (IPWSOA), and the Illinois Association of Water Pollution Control Operators (IAWPCO). Due to the COVID pandemic, these conferences were canceled.

The ERTC Director of Water Reclamation is the official Operator-In-Charge (OIC) for the SIUE wastewater treatment plant. The OIC is an IEPA required position of responsibility.

11.4 Evidence of Support for Center/Institute Objectives

The ERTC has enjoyed the full support of the Dean of the School of Engineering for the last fifteen years.

The Madison County Employment & Training Center recognized the ERTC as an approved training facility for students receiving WIOA funding. Two students were funded via the WIOA program in FY20.

The IEPA has supported the ERTC financially by providing operating funds for 39 years. The current IEPA interagency agreement runs from October 2018 through September 2021.

The Metropolitan Sewer District (MSD) of St. Louis hires ERTC graduates almost exclusively when recruiting new plant operators. Two students from the class of 2019 were hired by MSD.

MSD has continued their scholarship program for minority and female students enrolled in the one-year Water Quality Control Operations Program. As previously mentioned, the scholarship was adjusted to a full scholarship in FY20.

The Urban League of Metropolitan St. Louis exists to empower African Americans and others throughout the region in securing economic self-reliance social equality, and civil rights. African Americans are severely underrepresented in the water and wastewater industry, so this was a natural partnership. The ERTC works with the Urban League to promote the industry via classes and presentations. The ERTC also works with SLATE and the St. Louis Metropolitan Sewer District to provide financial assistance to any Urban League members that may be interested in ERTC training programs.

The ERTC formed a partnership with Edwardsville Fire Department. On three occasions, the ERTC made our auditorium and confined space training apparatus available to the Edwardsville Fire Department for their training purposes.

A legacy scholarship is available to students who verify that they have a relative working in the water or wastewater field. Recipients receive a \$500 decrease in tuition.

Curry & Associates established the Patrick Curry Memorial Award scholarship in 1983.

The Sylvanus Jackson Memorial Award scholarship was established by IWEA in 1994.

The Anthony J. LaRocca Memorial Award scholarship was established by John LaRocca in 2013.

Additional scholarships include:

SCWPOA Scholastic Award (2 students)

MISKA Scholastic Award (3 students)

IAWPCO Scholastic Award (2 students)

11.5 Evidence of Organizational Effectiveness

The ERTC graduated 18 students in FY20 (down two students from FY19). Two students failed to graduate because they were unable to complete their internship requirements. Two additional students dropped out of the program in the Spring semester. The pandemic may have had an effect on the students that missed internships and dropped out, but it is not clear.

The ERTC one-year program continues to provide a high quality training in water treatment technology to future water and wastewater treatment professionals. Pass rates for the drinking water certification (82%) and wastewater certification (78%) in Illinois remain high. The wastewater certification exam pass rate just missed our internal target of 80%. In both categories, the ERTC did meet the external credential attainment target set forth by Madison County WIOA funding (66%).

The Illinois Environmental Protection Agency and Missouri Department of Natural Resources continue to recognize the ERTC as a premier training center for water technology in the Midwest. Both regulators continue to offer simultaneous education and experience credit for the one-year program.

Job placement statistics continued to be strong with 78% of students finding jobs within six months of program completion (14 of 18). This result continues to meet the Madison County WIOA target of 74%.

The ERTC continued to provide educational opportunities for new and continuing employees in the wastewater treatment and drinking water supply industry across Illinois, Missouri, and the nation. From July 2019 through June 2020, the ERTC trained 1,080 students and awarded over 38,000 continuing education and classroom clock hours. This showed an increase of 159 students trained over FY19, but 4,400 less continuing education hours. The number of students trained increased by 17.3% due to expanded offerings and larger venues. The continuing education hours provided decreased by 10.5%. The COVID-19 pandemic eliminated all scheduled training for April, May, and June. Considering 25% of the year was lost due to the crisis, an increase in the number of students trained and a modest decrease in the continuing education hours provided illustrates an effective year of training for the ERTC.

12. Institutional Assessment

12.1 Date of Last Review 2020

12.2 Decision at Last Review X Center/Institute in Good Standing
 Center/Institute Flagged for Priority Review
 Center/Institute Suspended

12.3 Explanation

Both the Dean of Engineering and the Director of the ERTC were in agreement with the recommendations made in the internal review report. The Center Review recommendations included: securing additional funding, a stronger connection with industry/academia for research, investments in marketing for program expansion, more on-line offerings, lab certification and potential contracting, new technology/equipment for students, social media presence, and the pursuit of additional student loan options.

RESOURCES: Environmental Resources Training Center

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016
Revenues					
State Appropriations					
One-Year Program	147,292	146,909	232,206	246,168	272,000
Grants & Contracts	505,881	304,504	278,694	341,687	310,000
CCCDI Training/Symposium	80,215	111,745	100,505	110,845	80,000
CCCDI Recertification	59,530	82,825	65,960	68,000	66,000
Night Classes	22,095	37,080	29,575	41,925	20,000
Workshops	65,250	88,950	82,500	71,475	45,000
Total Revenues	880,263	772,013	789,440	880,100	793,000
Expenditures*					
Full Time Salaries	477,687	432,788	490,469	532,303	399,000
Adj. Staff & Student Workers	24,289	41,480	46,556	46,064	51,000
Telecom/Communications	6,491	6,514	6,561	12,933	14,500
Commodities	46,328	79,914	70,456	74,218	36,000
Equipment	13,033	30,797	9,847	23,807	100,000
Contract Services	91,117	48,570	78,116	N/A	N/A
Permanent Improvement	242,000	N/A	N/A	N/A	N/A
Computer	0	0	0	3,810	21,000
Travel	24,930	22,212	31,798	36,353	14,000
Marketing	0	0	0	30,658	10,000
Refunds	1,275	N/A	N/A	N/A	N/A
Total Expenditures	927,150	662,275	733,803	750,146	645,500
Revenue Minus Expenditures	(46,887)	109,738	55,637	129,954	147,500

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	0	0	0	0	0
Staff	7	7	7	7	7
Total Staffing	7	7	7	7	7

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	Southern Illinois University Edwardsville						
2.	Center/Institute	IL SBDC for the Metro East at SIUE						
3.	Date	3-20-21						
4.	Director	Giovanna May						
4.1	Telephone	618.650.2929						
4.2	E-mail	gdimagg@siue.edu						
5.	Year Established	1984						
6.	Illinois State Statute (if pertinent)	N/A						
7.	Reporting Unit	School of Business						
8.	Type	<div style="text-align: center;">Activity (check all that apply)</div> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; padding: 5px;">Instructional</td> <td style="border: 1px solid black; width: 70%;"></td> </tr> <tr> <td style="padding: 5px;">Research</td> <td style="border: 1px solid black;"></td> </tr> <tr> <td style="padding: 5px;">Public Service</td> <td style="border: 1px solid black; text-align: center;">X</td> </tr> </table>	Instructional		Research		Public Service	X
Instructional								
Research								
Public Service	X							

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

The Illinois Metro East SBDC at SIUE operates 2 offices (SIUE –Edwardsville Campus and East St. Louis Higher Education Campus) and an International Trade Center to assist entrepreneurs and small business owners in the designated 9 county region of Southwest Illinois.

9.2 Mission

To Provide Professional Guidance for Business Growth. The Illinois SBDC for the Metro East at SIUE assists entrepreneurs and companies in defining their path to success. The SBDC positively impacts the Metro East Illinois region by strengthening the business community, creating and retaining new jobs, and encouraging new investment. Furthermore, the SBDC enhances Metro East Illinois economic interests, providing one-stop assistance to individuals by means of counseling, research, and advocacy for new ventures and existing small businesses.

The IL SBDC-ITC prepares companies for long-term international success through its export readiness and expansion programs

9.3 Objectives

- Deliver effective and relevant services that address client needs and contribute to business growth and job creation.
- Develop long-term relationships with clients that have significant opportunities to grow and create jobs in Illinois.
- Utilize partnerships to advocate for small businesses and promote an entrepreneurial culture.
- Support the goals and objectives of both the SIUE School of Business and the University at large.

10. Advisory Board

10.1 Advisory Board - Membership

SBDC— Established Jan 2019

Last meeting held Nov 23, 2020. Next scheduled for March 22,2021

ITC- Southwest IL Trade and Investment Council

In lieu of having its own advisory board, the International Trade Center is a founding member and co-leads the Southwestern Illinois Trade and Investment Council (SWILTIC), which supports and provides direction for the ITC. The ITC is co-leading the Select USA Virtual Tour of Southwest Illinois (Webinar format) tentatively scheduled for June, 2021.

The SWILTIC is the first of its kind in Illinois. The Council’s board meets regularly four times a year.

<http://swillinoistrade.org/Council>

<http://www.siu.edu/business/itc/sw-ill-trade-investment-council.shtml>

10.2	Number of Meetings (FY2020)	SBDC- 3 meeting	ITC- 4 meetings
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11. Annual Performance FY20

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. Number of Jobs Created (SBDC)	40	84
2. Number of Business Starts (SBDC)	9	16
3. Number of Clients Advised (SBDC)	135	214
4. Number of Clients Advised (ITC)	55	112
5. Client Exports (ITC)	\$20,000,000.00	\$ 36,556,833

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, and public service activities.

11.2 Major Accomplishments (FY20)

<p>SBDC: Advised 214 Clients and helped them secure over \$ 1.3 Million in Debt Funding through more than 4788 hours of contact.</p> <p>Efforts implemented to augment SBDC services with CARES Act funding received.</p> <p>Supported Belleville, Granite City, Edwardsville, Monroe/Randolph County, Riverbend and Fayette County High School CEO Programs</p> <p>Cohosted 3rd Annual Veteran’s Road Show or Reboot</p> <p>Hosted 6th Annual Metro East Startup Challenge promoting Entrepreneurship and Innovation in St. Louis Region</p> <p>Cohosted (as Small Business Week of SW IL) Small Business Saturday Passport event with 6 local chambers</p> <p>Hosted or participated in numerous COVID-19 Small Business Relief Funding Webinars in late March-June 2020.</p> <p>Conducted and/or Hosted 42 Workshops/Training Sessions with approximately 815 attendees</p> <p>Published 20 Success Stories celebrating our local Entrepreneurs and Small Business Owners.</p> <p>ITC:</p> <ul style="list-style-type: none"> The ITC and Universidad de Lima’s International Business Program signed a memorandum of understanding (MOU) in December 2019. Several strategic activities continue being discussed, including the organization of virtual, inbound and outbound trade missions in partnership with PROMPERU, other Peruvian government agencies and SWITIC.
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<https://www.ibjonline.com/2020/01/14/southern-illinois-pursues-trade-opportunities-with-peru-partners/>

- With the use of technology, a pilot project is being developed by the ITC and UL to help small businesses increase their export/import capacities with the support of the Illinois SBDC ITC International Network and the participation of students, providing them with opportunities to garner experience in the areas of international trade and commerce. This initial project seeks to combine some key areas, such as exchanging best practices, co-counseling clients, sharing trade data and delivering training programs.
- The ITC continues communications with SERCOTEC (Servicio de Cooperación Técnica), a division of Chile's Ministry of Economy and Development, to develop a cooperative agreement to connect Chilean and southern Illinois businesses and entrepreneurs.

The partnerships with Universidad de Lima and SERCOTEC resulted from Torres Bowman's visits to Peru and Chile in March 2019. A Cooperation Agreement between SIUE and Universidad de Lima was signed in January 2020 and a similar agreement with Universidad de Chile is currently on hold.

- The ITC is also collaborating with the American Chamber of Commerce in Peru (AmCham Peru) to organize virtual programs that could enable entrepreneurs from Illinois and Peru to connect and explore trade and investment opportunities. Unfortunately, due to COVID-19, the visit to SW Illinois by a Peruvian delegation led by AmCham, scheduled for August- 2020, had to be put on hold.
- Facilitating connections between AMCHAM Perú and MidAmerica Airport to start exploring opportunities of collaboration towards a subsequent mission that could focus on ag trade opportunities to capitalize on the unique facilities that LIM and BLV have, mainly: refrigerated handling. Other trade commodities that could benefit from high-speed, high-care shipping opportunities: pharmaceuticals, electronics, medical devices/equipment, just-in-time parts, etc.
- Sponsored/Co-sponsored four seminars and one roundtable discussion with very positive feedback. Over 150 business representatives from the bi-state region participated.
- Partnered with the University of Missouri International Trade Center, in conjunction with the Trulaske College of Business in bringing two successful clients to the 2019 Mid-America Trade Summit held Nov. 6-7 at the University of Missouri. These two experienced exporting businesses based in Collinsville and Hillsboro, represented the State of Illinois and were honored during the event, delivering insightful presentations to an audience of over 100 delegates from five Midwestern states.
- Sponsored 10 businesses with their participation in trade missions and shows in Mexico, Europe and South America. These clients were also assisted with research work performed by SIUE graduate students.

- Continued providing specialized assistance regarding Latin America. Planning a virtual trade mission connecting southern Illinois businesses with importers and distributors in South America.
- Partnered with World Trade Center St. Louis, St. Louis Regional Chamber of Commerce, the U.S. Department of Commerce, the Small Business Administration and Missouri International Trade & Investment Office to further develop the St. Louis Trade Commission, a task force responsible for helping regional businesses and organizations find information about exporting and opportunities in foreign markets.
- Continued upgrades of the ITC's website. The site now contains up-to-date COVID-19 information, as well as articles from the International Trade Center Network, DCEO's Office of Trade and Investment Network, upcoming regional events, trade directories, Export Guides (Spanish/English), several other resources and a CARES Act Supplemental Funding section.
- Expanded the ITC's access to online marketing databases of potential clients as well as industry and country statistics.
- In June 2020, the following new initiatives with the support of CARES Act funds got started:
 - "Team South"
 - Together with domestic and international partners and consultants, the Illinois SBDC ITC at SIUE continued expanding its reach to build a stronger and more cohesive network of assistance; first, by identifying small businesses in the southern region that are navigating the stress caused by COVID-19; and second, by offering them immediate insight and guidance in key areas.
 - Technology began being regularly used to connect clients with partners and trade organizations from the U.S. and across the world to share emerging good practices and resources such as market information, providing immediate and relevant support to small businesses affected by COVID-19.
 - "Southern Illinois Exports": Connecting the Region with the World
The ITC started the development stages for this much-needed online resource to provide support and help identify and assist small businesses affected by COVID-19 by providing advice, guidance and access to new customers and markets.

Three sections are currently being developed /offered to small businesses from the southern region:

1. Online Platform/Business Directory: an electronic listing of businesses (less than 500 employees), sorted by industry, to facilitate the promotion of their products or services domestically and globally.
2. Virtual Advising: provided through partnerships with domestic and international consulting firms. All virtual sessions are being held via Zoom (ITC has a licensed account through SIUE)
3. One-on-one Advising Sessions

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

Provided business counseling and/or support to more than 70 SIUE students (Clients, Students, Alumni and Entrepreneurship Club) in CY2020; organized efforts to foster and promote innovation and entrepreneurship on campus; and strengthened SIU system to the community through coordinated outreach efforts, social media campaign, and community partnerships. For example, collaborating with various departments to offer students the opportunity to work with small business clients and gain real world experience in Marketing, Art/Design, Engineering and Web Design.

11.4 Evidence of Support for Center/Institute Objectives

As stated above – 214 SBDC client contacts, over \$36.5M in ITC client exports; 42 SBDC training sessions.
 Starting a Small Business Workshop is offered at no cost.
 Center supports SIUE Entrepreneurship Club & the Other 40 Competition. Spoke to various classes throughout Fall 2019 and Spring 2020.
 Recommend clients to participate in class projects for Mass Comm., MGMT 475/476.
 Promotes SIUE’s vision of Entrepreneurship and Innovation within the communities we serve

11.5 Evidence of Organizational Effectiveness

During FY2020, the SBDC and ITC met or exceeded the goals in a majority of its performance measures and achieved 83% or greater in 19 of 26 total measures.

12. Institutional Assessment

12.1	Date of Last Review	Financial Review 2017 Performance Review 8/30/18	
12.2	Decision at Last Review	X	Center/Institute in Good Standing
			Center/Institute Flagged for Priority Review
			Center/Institute Suspended
12.3	Explanation	2018 SBA and DCEO Reviews 8/30/18	
		Financial Review 2017	

RESOURCES: IL SBDC for the Metro East at SIUE

Financial Resources	CY2020	CY2019	CY2018	CY2017	CY2016
Revenues					
State Appropriations	123,866	124,388	157,523	111,475	144,416
Income Fund	1,061	15,016	12,315	8,843	11,545
Grants & Contracts	385,000	185,000	180,000	180,000	122,827
Total Revenues	509,957	324,404	349,838	300,318	278,788
Expenditures*					
Salaries/Fringes	255,922	256,460	277,062	217,863	225,661
Commodities	5,420	4,460	2,824	3,941	4,116
Contractual	64,293	42,982	28,042	0	36,109
Travel	1,594	15,555	15,403	13,851	13,189
Consultants/Indep. Contractors	37,005	0	0	16,000	0
Equipment	0	0	155	0	0
Telephone/Other	3,853	4,432	4,569	42,209	12,851
Total Expenditures	368,087	323,889	328,055	293,864	291,836
Revenue Minus Expenditures	141,870	515	21,783	6,454	(13,048)

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

****CY 2020 includes \$200,000 in CARES Act funding received for COVID-19 relief efforts. Assistance includes Cybersecurity/IT, Human Resources, Web-Design, Marketing/Social Media, Accounting as well as support for African American and Latino entrepreneurs and small business owners.**

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	0	0	0	0	0
Staff	3	3	3	3	4
Total Staffing	3	3	3	3	4

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	Southern Illinois University Edwardsville						
2.	Center/Institute	National Corn-to-Ethanol Research Center (NCERC at SIUE)						
3.	Date	March 10, 2021						
4.	Director	John Caupert						
4.1	Telephone	618-659-6737 ext. 226						
4.2	E-mail	jcaupert@ethanolresearch.com						
5.	Year Established	Money Appropriated in 1997, Ground Breaking 2001, Opening October 2003.						
6.	Illinois State Statute (if pertinent)	Southern Illinois University Management Act, Public Act 095-099						
7.	Reporting Unit	The Graduate School						
8.	Type	<div style="text-align: center;">Activity (check all that apply)</div> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Instructional</td> <td style="text-align: center; padding: 2px;">x</td> </tr> <tr> <td style="padding: 2px;">Research</td> <td style="text-align: center; padding: 2px;">x</td> </tr> <tr> <td style="padding: 2px;">Public Service</td> <td style="text-align: center; padding: 2px;">x</td> </tr> </table>	Instructional	x	Research	x	Public Service	x
Instructional	x							
Research	x							
Public Service	x							

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

The NCERC at SIUE is a nationally recognized research center dedicated to the development and commercialization of biofuels, specialty chemicals and other renewable compounds. The Center's fully functional dry grind pilot plant and laboratories are equipped with advanced biofuels capabilities including corn fractionation, pretreatment, and a fermentation suite with 5, 30, 150 and 1500L scale-up. Clients and collaborators benefit from the ability to take their process from the lab to intermediate scale to pilot scale, all in the convenience of one state-of-the-art facility. The Center's engineers, operators, and scientific analysts also provide a range of educational and training opportunities, including internships, courses, workshops, and corporate training programs.

9.2 Mission

- **Advocacy:** To advocate, educate, and motivate consumers and elected officials on the benefits of biofuels
- **Commercialization:** To facilitate the commercialization of new technologies for producing bio-based materials
- **Research:** To utilize our relationships with government, industry, academia and trade to conduct contractual and grant-funded research
- **Education:** To develop and provide the hands-on training to prepare the bioeconomy workforce of tomorrow.

9.3 Objectives

- Educate and inform consumers and policy makers on biofuels benefits and policy needs
- Assist industry, trade, and academic research partners in commercialization of new products and technologies.
- Lead and collaborate on research projects designed to increase efficiency, develop new products, or otherwise investigate bio-based products and materials
- Provide hands-on learning opportunities, training, and education to students, displaced workers, and industry employees

10. Advisory Board

10.1 Advisory Board - Membership

13 Member Governor Appointed Ethanol Research Advisory Board:

1. President of Southern Illinois University who shall be Chairman;
2. Director of Commerce and Economic Opportunity;
3. Director of Agriculture;
4. President of the Illinois Corn Growers Association;
5. President of the National Corn Growers Association;
6. President of the Renewable Fuels Association;
7. Dean of the College of Agricultural, Consumer, and Environmental Science, University of Illinois at Champaign-Urbana; and

8. Six at-large members appointed by the Governor representing the ethanol industry, growers, suppliers, and universities.

The Advisory Board shall meet at least annually or at the call of the Chairman. At any time a majority of the Advisory Board may petition the Chairman for a meeting of the Board. Seven members of the Advisory Board shall constitute a quorum.

Absence of Quorum for the Illinois Ethanol Research Advisory Board Since 2012:

The NCERC repeatedly made requests, written, verbal and face to face meetings, with the Governor’s Office of Executive Appointments, to get vacant / expired terms filled.

NCERC Stakeholder Advisory Board:

Due to absence of a quorum, since 2012, of the Governor Appointed Advisory Board, the NCERC created a Stakeholder Advisory Board. This Board consists of representation of Industry, Academia, Industry and Trade. In addition, the SIU President and the SIUE Chancellor have participated in these meetings.

Under the guidance of SIUE and SIU administration, repeated attempts have been made to encourage the Illinois Governor to fill these positions, including a list of recommendations sent to then Gov. Bruce Rauner by Illinois’s congressional delegation. With Gov. JB Pritzker’s election in FY2020, the NCERC is coordinating new efforts with appropriate SIUE and SIU administrative and legislative contacts.

10.2 Number of Meetings (In This Year)

The Advisory Board shall meet at least annually or at the call of the Chairman. At any time a majority of the Advisory Board may petition the Chairman for a meeting of the Board.

The NCERC Stakeholders Meeting was held, October 24!

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. Presentations	10	5
2. Publications	2	0
3. Grant Awards and Contracts	12	8 – Primarily Contracts
4. Outreach	25	15
5. Policy/Legislative Advocacy	10	6

11.2 Major Accomplishments (In This Year)

- WHO Spec Sanitizer: While the world was struggling to identify sources of sanitizer, NCERC in a span of 48 hours developed, created and produced a WHO spec sanitizer.
- Alcohol Donation: NCERC donated 5000 gallons of alcohol, which in a partnership with Stumpy’s Distiller, was utilized to produce nearly 6000 gallons

of FDA spec sanitizer, nearly all of which was donated to healthcare workers and first responders, 200+ gallons being donated to SIUE.

- Assisting Governor: NCERC rapidly became the go to source for the Governor, via Illinois Director of Agriculture, Jerry Costello II. On nearly a daily basis, for 7+ weeks, NCERC was called upon by the Governor's cabinet for updates on developments in FDA compliant sanitizers.
- Minority Businesses: NCERC became the go to source for Chicago-land, women owned, African American minority business owners who entered the sanitizer production markets. Through Illinois Department of Agriculture Director, Jerry Costello II, State Senator Patrick Joyce and the Renewable Fuels Association, NCERC was the conduit and point person, connecting minority business owners with alcohol (fuel ethanol) producers.
- Technical Experts: Within weeks of the pandemic, NCERC became the go to source, for every biofuels trade organization in the United States, as corn ethanol producers were in need of technical expertise on producing spec alcohol to be utilized in sanitizer production.
- For the first time in it's history, NCERC converted woody biomass into ethanol.
- For only the second time in the 16 year history of NCERC, a commercial production contract of a biopolymer was conducted at NCERCt. The biopolymer is a direct one-to-one replacement for petroleum-based polymers. The biopolymer will be utilized in everything from baby diapers to cardboard shipping boxes.
- By working with Illinois EPA, DuPont and Keller Farms, NCERC successfully was awarded a Land Application Permit for liquid waste products. For the first time in the history of NCERC, liquid waste products were land applied, this saving time, energy and dollars from going to municipal waste facilities.
- NCERC provided sound, scientific data for U.S. EPA to release its document, "Guidance on Qualifying an Analytical Method for Determining the Cellulosic Converted Fraction of Corn Kernel Fiber Co-Processed with Starch" for the U.S. corn ethanol industry.
- NCERC assisted the U.S. Department of Energy Bioenergy Technology Office to come up with the idea of the "Corn Kernel Fiber Workshop."

11.3 Evidence of Support for State, SIU System, and SIU Campus Priorities

State Priorities

State law requires the NCERC to: form collaborative research teams; to provide training and services to the ethanol industry; to coordinate industry research needs by pursuing external funding sources; to provide hands-on training for the biofuels workforce; to serve as an independent, third-party validator; to advocate for renewable energy; to provide consultation services; and, to develop demonstration projects. With more than 65 technologies now in the commercial marketplace, NCERC has provided valuable services to the biofuels industry, students, government agencies, and society as a whole.

SIU System Priorities

Through its partnerships with SIUC researchers, NCERC creates research opportunities for faculty and students across the SIU system.

SIUE Campus Priorities

NCERC continues to support SIUE's core mission of undergraduate education by providing educational opportunities to countless SIUE student workers, graduate students, and interns. The NCERC has also developed two new undergraduate "focus areas" within the Integrative Studies baccalaureate program at SIUE. NCERC has generated millions of dollars in funding from competitive grants and private client contracts. A significant portion of these funds have been returned to SIUE in the form of indirect dollars, which support the University's operating expenses and administrative services.

11.4 Evidence of Support for Center/Institute Objectives

The NCERC achieves its objectives through its mission of ACRE: Advocacy, Commercialization, Research, and Education. As the legislative, educational, and industry-focused service and activities demonstrate, NCERC worked hard to fulfill its reputation as a private/public partnership that works in FY20.

Legislative Outreach

- Illinois Ag Legislative Day
- Congressman Davis Agriculture Advisory Committee
 - NCERC Director John Caupert serves on the Agriculture Advisory Committee of U.S. Congressman Rodney Davis (IL-13), serving as the biofuels industry advisor.
- Congressman Bost Agriculture Advisory Committee
 - NCERC Director John Caupert serves on the Agriculture Advisory Committee of U.S. Congressman Mike Bost (IL-12), serving as the biofuels industry advisor.

Committees

Director John Caupert serves on the following committees and boards:

- Agriculture Advisory Council – 12th Congressional District of Illinois
- Agriculture Advisory Council – 13th Congressional District of Illinois
- Alternate Fuels Commission – Governor Appointee
- American Coalition for Ethanol (ACE)
- BIO
 - Communications Committee
 - Federal Government Relations Committee
 - State Government Relations Committee
 - Biobased Products Working Group
 - Biofuels Working Group
- BioSTL Coalition
- Governor's Proclamation – Manufacturing and Job Creation
- Growth Energy
 - Team Leader of Biofuels Congressional Fly-Ins
- Illinois Corn Growers Association
- Illinois Farm Bureau
- Illinois Policy Action Network
- International Fuel Ethanol Workshop
 - Strategic Planning Committee
- National Corn Growers Association
- Renewable Fuels Association

- Southern Illinois University – College of Agricultural Sciences
 - Executive Leadership Board
- St. Louis Regional Chamber
- – Illinois Public Affairs Committee; Energy and Environment Committee
- St. Louis Agribusiness Club – Congressional Committee
- United States Secretary of Defense – Patriotic Employer
- United States Senate – Rural Summit, Illinois Representative of Senator Dick Durbin

NCERC staff also serve on the following committees and boards:

- Lewis and Clark Community College Process Operations Technology Advisory Board
- St. Louis Agribusiness Club
- Session Chair for application of analytical chemistry in biofuels and bioproducts for Pittcon 2020
- Joint BioEnergy Institute Industrial Advisory Committee
- Shimadzu SPARQ Lab Committee

Conferences and Visits

SIU Field Day

July, 2019
Belleville, IL

National Corn Growers Association, Corn Congress + Ethanol Action Team meetings

July, 2019
Washington, DC

BIO World Congress

July, 2019
Des Moines, IA

Renewable Fuels Association Board Meeting

July, 2019
Washington, DC

American Coalition for Ethanol Annual Conference

August, 2019
Omaha, NE

JBEI Annual Meeting and Advisory Committee Meeting

August, 2019
Emeryville, CA

Growth Energy Biofuels Summit

September, 2019
Washington, DC

NHRA Midwest Nationals – American Ethanol

September, 2019

Madison, IL

SIUC College of Agricultural Sciences Executive Leadership Meeting

October, 2019

Carbondale, IL

Fuel Ethanol Laboratory Conference

October, 2019

Omaha, NE

NCERC Annual Stakeholder Meeting

October, 2019

Edwardsville, IL

Advanced Bioeconomy Leadership Conference (ABLC)

November, 2019

San Francisco, CA

St. Louis AgriBusiness Club Meeting at St. Louis Science Center

January, 2020

St. Louis, MO

NCERC presents in RFA DDGS Subcommittee Webinar

January, 2020

Ellisville, MO

Edwardsville CEO Group Visit

January, 2020

Edwardsville, IL

Regional Apprenticeship Meeting

January, 2020

Collinsville, IL

InnovationXLab Biomanufacturing Summit

January, 2020

Berkeley, CA

STL CAPS Engineering and Advanced Manufacturing Visit

January, 2020

Edwardsville, IL

Growth Energy Executive Leadership Conference

February, 2020

Key Biscayne, FL

Aquaculture America 2020

February, 2020

Honolulu, HI

<p>Renewable Fuels Association National Ethanol Conference February, 2020 Houston, TX</p> <p>Illinois Farm Bureau Governmental Affairs Leadership Conference February, 2020 Springfield, IL</p> <p>St. Louis AgriBusiness Club Meeting February, 2020 St. Louis, MO</p> <p>Venture Cafe February, 2020 Creve Coeur, MO</p> <p>World Trade Center St. Louis Round Table Discussion February, 2020 St. Louis, MO</p> <p>Waterloo High School Career Night February, 2020 Waterloo, IL</p>

11.5 Evidence of Organizational Effectiveness

Organizational Effectiveness:
FY20 is when the world was literally turned upside down. Beginning Friday, February 28, 2020, contract after contract after contract began being cancelled. With so much market uncertainty, compounded by such global uncertainty, the private sector came to a complete halt, especially in terms of externally funded research projects. It's extremely difficult to quantify "Organizational Effectiveness" in FY20, and will be equally as difficult for FY21. That being said, it's extremely easy to qualify the "Organizational Effectiveness" of NCERC in FY20. By simply looking back at how NCERC found itself in the front line of the fight against COVID and COVID mitigation, I believe NCERC proved to have incredible "Organizational Effectiveness".

12. Institutional Assessment

12.1 Date of Last Review Last meeting of the Illinois Ethanol Research Advisory Board, 2012

12.2 Decision at Last Review Center/Institute in Good Standing

_____ Center/Institute Flagged for Priority Review

_____ Center/Institute Suspended

12.3 Explanation (briefly provide any explanation necessary of the institutional assessment)

RESOURCES: National-Corn-to-Ethanol Research Center

Financial Resources	FY20	FY19	FY18	FY17	FY16
Revenues					
Beginning Cash	5,696,078	4,014,258	2,940,561	1,479,284	
State Appropriations	1,301,770	1,300,000	1,412,950	293,310	293,198
Client Contractual Research	2,161,677	2,808,926	4,485,600	2,953,942	3,565,655
Grants	-	143,357	703,860	504,825	767,915
Other Revenue	102,226	115,699	289,788		310,567
Foundation	100,000	100,000	59,402	137,000	140,000
Total Revenues	3,665,673	4,467,982	6,951,600	5,368,361	5,077,335
Expenditures*					
Salaries	1,030,826	1,069,542	1,813,360	1,273,341	1,377,000
Fringe Benefits	140,694	170,103	328,045	300,076	598,549
Operational Expenses	1,066,544	1,546,517	2,290,490	854,384	1,366,244
Total Expenditures	2,238,064	2,786,162	4,431,895	2,427,800	3,341,793
Cash + Revenue Minus AR and Expenditures	7,123,687	5,696,078	4,014,258	2,940,561	1,735,542

Staffing (Full Time Equivalent)	FY20	FY19	FY18	FY17	FY16
Faculty	2	4	5	1	1
Staff	36	36	40	22	16
Student Workers, Interns, GA's	10	15	30	22	15
Post Doc – Research Fellows	0	0	0	0	2
Total Staffing	48	65	75	45	34

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	SIUE
2.	Center/Institute	University Museum
3.	Date	3/22/2021
4.	Director	Erin Vigneau-Dimick
	4.1 Telephone	618-650-2996
	4.2 E-mail	evigneau@siue.edu
5.	Year Established	1979 - Established as "The Office of Cultural Arts and University Museum Programs"; 1983 - renamed "University Museum". (Originally named "The Office of University Cultural Arts Services" (UCAS) 1977)
6.	Illinois State Statute (if pertinent)	N/A
7.	Reporting Unit	College of Arts & Sciences
8.	Type	Activity (check all that apply)
	Instructional	X
	Research	X
	Public Service	X

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

The University Museum (UM) of Southern Illinois University Edwardsville, founded in 1979, is a repository and interpretive center whose interdisciplinary collections include more than 32,000 two- and three-dimensional objects of fine art, architecture, history, ethnology, archaeology, and the natural sciences. Highlights of the collection include the Louis Sullivan Ornament Collection donated by the architectural photographer Richard Nickel and the Harrington Collection of over 15,000 artifacts with strengths in Native American, Asian, and African ethnology, as well as fossils from Cenozoic through Paleozoic eras.

9.2 Mission

The University Museum (UM) supports the instructional, research and public service functions of Southern Illinois University Edwardsville through the collection, interpretation, preservation, presentation and exhibition of tangible, physical objects to its students and the greater community which it serves.

9.3 Objectives

1. Provide access to university sponsored museum collections, expertise, and facilities, for object-based education and research to SIUE faculty and students and the broader community.
2. Enhance teaching and learning by providing meaningful opportunities for hands-on experiential learning within and outside of the classroom.
3. Encourage and facilitate research engaged with the museum's culturally diverse art and artifact collection for faculty, students, independent scholars, and members of the general public.
4. Serve as a visitor gateway to the campus and the University through outreach events, programming, and interactive experiences.
5. Act as responsible stewards for the publicly owned collections of the university.

10. Advisory Board

10.1 Advisory Board - Membership

The SIUE University Museum Advisory Council (UMAC)

- Associate Professor Laura Milsk-Fowler; History Dept.
- Associate Professor Cory Willmott; Anthropology Dept.
- Associate Professor Barbara Nwacha; Chair, Art & Design Dept.
- Associate Professor Luci Kohn; Biology Dept.
- Professor Caroline Pryor; Department of Teaching and Learning
- Professor Denise Cobb; Provost and Vice Chancellor for Academic Affairs
- Doug McIlhagga; Executive Director, SIUE Marketing and Communications
- Diane Schrage, Director, The Art and Heritage Initiative
- Erin Vigneau-Dimick; Executive Curator, University Museum
- Kyle Moore; Director of Development, SIUE Foundation
- Dana Lewis; Masters Candidate, SIUE Integrative Studies
- Professor Gregory Budzban; Dean, College of Arts & Sciences

10.2 Number of Meetings (In This Year) 1 full council meeting

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. External Exhibits	1 exhibit	2 exhibits
2. Virtual Exhibits		1 exhibit
3. Academic Research (Faculty and Student)		35 researchers
4. Public/Scholarly Research		13 researchers
5. Lectures/programming	2 lectures	2 lectures
6. External Grants (proposed or awarded)	1 grant	3 grants
7. Objects inventoried		1,745 objects

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

11.2 Major Accomplishments (In This Year)

- Exhibits (3)
 - ***Rudy Pozzatti: A Suite of Fourteen Lithographs on the Stations of the Cross***
Fuller Dome Gallery – Center for Spirituality and Sustainability
Curated by Erin Vigneau-Dimick
August 29, 2019 – Ongoing
 - ***Kingdom Animalia***
Edwardsville Arts Center, Edwardsville, IL
Curated by Erin Vigneau-Dimick
Scheduled for March – April 2020 canceled because of COVID-19 state shutdown
 - ***Old Man River’s City Revisited***
(Fuller Dome Gallery – Center for Spirituality and Sustainability)
Curated by Stephanie Cuvar, Cathy McNeese, David Thompson
(graduate students from HIST582)
Scheduled for April 22, 2020 - canceled because of COVID-19 state shutdown
Reorganized and made into virtual exhibit available online
https://iris.siu.edu/scalar/omr/index?fbclid=IwAR0GaunAv1ZJ9VS4LfpfE9tsdjOkEEFzQmiUDsmr8tJyZEo5i_sT-pL-n0
May 8, 2020 – Ongoing
- Lectures/Programs ()
 - ***Public Archaeology Series: Artifact of the Week***
Social Media Outreach Series focused on Museum curation and object care. (Facebook, Instagram, Twitter)
Presented by Graduate CHRM student Dana Lewis
17 posts, October – November 2019
 - ***“Beyond Birdman Rising: Encounters with Mississippian Artists.”***
Presented by Artist Jeff Thomas and SIUE Professor Cory Willmott, PhD.
AAA/CASCA Annual Meeting; Vancouver, BC
November 24, 2019

- **Grants**
 - Proposed
 - **National Endowment for the Humanities**
NEH CARES: Cultural Organizations program 2020
\$29,938 request (submitted 5/11/2020) (denied 6/15/2020)
SIUE University Museum Digital Preservation and Access
 - **Institute for Museum and Library Services CARES Act**
Grants for Museums and Libraries FY2020 FY20
\$226,849 request (submitted 6/12/2020) (denied 9/24/2020)
SIUE University Museum Digital Access Expansion Project
 - Awarded
 - **Institute for Museum and Library Services Museums for America**
Collections Stewardship Grant FY19
\$130,000 awarded: 9/11/2019
SIUE University Museum Collections Inventory Project Stage I
- **Collections Inventory Project: Stage I**
Inventory of 10,000 of the museum's 33,000 displayed and stored collections
 - Focus is on installed art in 60 buildings across all three campuses and 2-dimensional Fine Art
 - 1,745 objects inventoried in FY2020
 - *COVID-19 closures slowed progress; however, UM GA's were permitted to return to the archive after the initial shutdown and continue on the inventory project.

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

SIUE University Museum (UM) serves the citizens of Illinois via numerous programs and activities. Through hands-on opportunities for learning and research, exhibits and programming the UM provides an enriching experience for students, scholars, and the public, connecting them to fine art, historical objects, natural history specimens and diverse cultural artifacts.

The University Museum supports IBHE stated goals (underlined) as follows:

1. The UM directly supports educational achievement through its instructional and research programs increasing K-12, undergraduate and graduate student's knowledge and understanding of world cultures and histories as well as providing professional expertise and training in museological studies.
2. Improve College Affordability: The UM sponsors 8 or more semester-long professional level onsite graduate research assistantships per year, providing stipends, tuition waivers and professional level museum work experience to students from related courses of study from the departments of Museum Studies, Art & Design, History, Cultural Heritage & Resource Management, and Public Administration and Policy Development.
3. Strengthen Workforce Development: The UM works directly with students who are interested in careers in art handling, exhibition preparation, collections management, and curation at museums and sites of cultural heritage. The extensive UM collections and facilities, coordinated with adjacent credentialing curriculums and programs, provide a museum professional training environment that is unique in the Southern Illinois/St. Louis metro region.

4. **Link Research and Innovation to Economic Growth:** New software, digital imaging and technological advancements have improved access to and management of the UM's collections for faculty, students, and the public. Online access to databases, imagery, and educational content engages local and distant learners providing opportunities for scholarship and professional development.

Support for SIUE Campus Priorities (Underlined)

1. **Prepared and Diverse Students:** The access that the UM provides to students to its multi-cultural, world class collections through exhibitions, classroom hands-on encounters and individual and group research activities exposes them to a world of people and places beyond Illinois. UM sponsored graduate research assistantships, internships, and professional practicums train students in essential museum job skills, preparing them for future careers.
2. **High-Quality Programs:** The UM staff work directly with faculty to optimize opportunities for museum facilitated hands-on research with artifacts. Access to collections objects are essential to courses in Anthropology, History, Art & Design, and Museum Studies. The UM operations facility is set up to accommodate instruction for students in the storage archive and regularly loans and displays objects from the collections at the Anthropology Department's Ethnographic Museum Laboratory and in classrooms throughout campus.
3. **Co-curricular programs and services to enhance learning:** The UM is engaged directly with graduate students enrolled in the Integrative Studies master's program under the Cultural Heritage and Resource Management (CHRM) focus and the master's in History with a certificate in Museum Studies. UM professional staff serve on CHRM graduate thesis committees, teach Museum Studies courses, and provide mentorship focused on the interdisciplinarity of professional museum career opportunities.
4. **High-Quality, Dedicated Faculty and staff:** The UM facilitates faculty interdisciplinary research projects utilizing collections materials and benefitting from museum staff expertise. UM staff collaborate with and support faculty by participating as a primary investigator on internal and external grants and proposals and assisting on and co-authoring peer reviewed articles and conference presentations.
5. **Outreach and Partnerships:** Through exhibitions, artifact loans, educational lectures, interactive hands-on experiences and more, the UM connects to the local K-12 community and the public of the region through partners such as the Edwardsville Arts Center, the Schmidt Art Center at SW Illinois College, Meridian Village Senior Living, and St. Louis' City Museum. Additionally, UM staff present and publish research in regional and national venues on museum collections management and education.
6. **Physical and Financial Stability:** The UM's collections are housed in a secure climate-controlled building with modern, museum-quality storage structures. All 32,000 of the unique and valuable objects in the collections are covered by an independent rider on SIU's self-managed insurance policy (SIP). In 2015, SIU Office of Audit's Internal Review identified proper inventory control as one of the most important factors to improve the UM's fiscal, and ethical stewardship practices. Since that time the UM has successfully executed a major records reorganization, begun a multi-stage, multi-year Collections Inventory project, and received a \$130,000 federally funded grant to execute Stage I of the project which is now in process.

11.4 Evidence of Support for Center/Institute Objectives

- 1. Provide access to university sponsored museum collections, expertise and facilities, for object-based education and research to SIUE faculty and students and the broader community.**
 - The UM loaned, installed, deinstalled, and/or moved, more than 535 items during FY2020, in and out of its facility to provide items for teaching, research, exhibition, and public display.
 - The University Museum facilitated internal extended loans of artifacts in FY2020 for use in the Anthropology Department's Ethnology Museum Laboratory to benefit student and faculty research.
 - 8 undergraduate and 5 graduate projects and exercises served
 - 385 museum objects loaned
 - The UM welcomed more than 50 faculty, students, and independent researchers in FY2020 to its limited access archive to view and research objects from the 1000's in our collections.
- 2. Enhance teaching and learning by providing meaningful opportunities for hands-on experiential learning within and outside of the classroom.**
 - In coordination with faculty of multiple disciplines from the College of Arts and Sciences, the University Museum has facilitated formal and informal hands-on educational experiences utilizing art and artifacts from the collections. These have included:
 - on-site faculty led interactive research experiences for students both on site in the archive and elsewhere on campus (Museum Studies, Art & Design, Anthropology, History)
 - HIST580: Intro to Museology, HIST581: Collections Management, HIST582: Museum Exhibit Practicum, HIST304: History of Greece
 - ART202C Introduction to Ceramics; ART 305/520 Advanced Ceramics
 - ANTH404 Anthropology and the Arts; ANTH490: Senior Assignment, ANTH570 Midwestern Prehistory; ANTH 590 Museum Internship
 - Graduate student directed curation of exhibits for Museum Studies courses
 - HIST590 Internships in Museology; HIST582 Museum Exhibit Practicum;
 - Professional level practicums for Museum Studies students
 - HIST581 Management of Museum Collections
 - HIST590 Internships in Museology; HIST582 Practicum in Exhibition and Program Development
- 3. Encourage and facilitate research engaged with the museum's culturally diverse art and artifact collection for faculty, students, independent scholars and members of the general public.**
 - Museum staff worked with external researchers both locally and nationally on inquiries and projects involving fine art, natural history, ethnography and history including scholars and curators:
 - Benjamin Lowder, Curator and Director, Center for Sustainability and Spirituality, Fuller Dome at SIUE
 - Rachel Hayes, artist and Associate Professor of Art, Concordia University, Irvine, with SIUE Professor Laura Strand
 - Russell Wrangle, artist, and Associate Professor of Art at Southern Utah University, with SIUE Associate Professor Joseph Page
 - John C. Guenther, Architect and Curator, St. Louis, MO
 - Dennis Cope, Architect and scholar, St. Louis, MO
 - Kit Morice, Curator emeritus, Tarble Art Center, Eastern Illinois University

- Eric Nordstrom, researcher and President, Urban Remains, Chicago, IL
 - John Vinci, researcher, author, Architect: Vinci/Hamp, Chicago IL
 - Tim Samuelson, Cultural Historian, City of Chicago, IL
 - Faculty and students (undergraduate and graduate) from the departments of Anthropology, Integrated Studies, Museum Studies/History and Art & Design carried out independent research utilizing materials from the University Museum’s collections. Projects this year included:
 - *Voices in Wood* – Anthropology 435, spring 2020
 - development of online virtual exhibit in Museum Views
 - *Birdman Rising* – Anthropology 570 project, spring 2020
 - development of online virtual exhibit in Museum Views
 - *Centralized Departmental Collection Management at the University Museum* INTG 500 and INTG593, Fall 2019, Spring 2020
 - CHRM Non-Thesis Masters Project and Proposal
4. **Serve as a visitor gateway to the campus and the University through outreach events, programming, and interactive experiences.**
- As an aspect of outreach programming to connect with and enrich the surrounding St. Louis regional community, the state and the nation, The University Museum brings exhibitions and programming to the Edwardsville community and the public at large.
 - Exhibitions
 - ***Rudy Pozzatti: A Suite of Fourteen Lithographs on the Stations of the Cross***
Fuller Dome Gallery – Center for Spirituality and Sustainability
Curated by Erin Vigneau-Dimick
August 29, 2019 – Ongoing
 - ***Kingdom Animalia***
Edwardsville Arts Center, Edwardsville, IL
Curated by Erin Vigneau-Dimick
Scheduled for March – April 2020 canceled because of COVID-19 state shutdown
 - ***Old Man River’s City Revisited***
(Fuller Dome Gallery – Center for Spirituality and Sustainability)
Curated by Stephanie Cuvar, Cathy McNeese, David Thompson
(graduate students from HIST582)
Scheduled for April 22, 2020 - canceled because of COVID-19 state shutdown
Reorganized and made into virtual exhibit available online
https://iris.siu.edu/scalar/omr/index?fbclid=IwAR0GaunAv1ZJ9VS4LfpfE9tsdjOkEEEdFzQmiUDsmr8TjyZEo5i_sT-pL-n0
May 8, 2020 – Ongoing
 - Programming
 - ***Public Archaeology Series: Artifact of the Week***
Social Media Outreach Series focused on Museum curation and object curation. (Facebook, Instagram, Twitter)
Presented by Graduate CHRM student Dana Lewis
October – November 2019
 - ***“Beyond Birdman Rising: Encounters with Mississippian Artists.”***

Presented by Artist Jeff Thomas and SIUE Professor Cory Willmott, Phd.
AAA/CASCA Annual Meeting; Vancouver, BC
November 24, 2019

- Active loan program, enriching community relationships regionally and state-wide
 - Cahokia Mounds Historical Site (ongoing)
 - Parkin Archeological State Park (ongoing)
 - Edwardsville Arts Center Sculpture Garden (ongoing)
 - The City Museum, St Louis, MO (ongoing)
 - Multiple community and financial institutions: The Bank of Edwardsville, Scott Credit Union, Hortica, The City of Edwardsville and others (ongoing)

5. Act as responsible stewards for the publicly owned collections of the university.

According to nationally established standards and best practices, the SIUE UM legally, ethically, and effectively manages, documents, and preserves the collections in the following ways:

- Strategic plan
 - the current plan has been updated to extend until 12/2020
- Advisory council
 - one meeting held in FY20
 - Acquisitions and Policy committees established
- Accessions
 - Transfer of one Master of Fine Arts Candidate's thesis work into the Museum MFA Collection.
 - Transfer processed of items from the Anthropology Teaching Museum's collection: 29 accessions totaling 278 objects.
 - Accession of auction purchases of three student artworks from the SIUE Friends of Art Auctions in 2007 and 2009.
 - Accession of 134 items into the AY2020 Found-In-Collections status of objects located and identified during the Collections Inventory project.
- Intellectual and physical control of collections
 - During the COVID-19 shutdown, museum staff, working remotely, surveyed recategorized and refiled more than 200 records associated with the Milton Harrington collection that had been disconnected from the PastPerfect online database.
 - Multi-stage full inventory continues in FY20 (full collection is projected at more than 32,000 objects. Rough projections suggest 9 FTE years to complete.)
 - Collections Inventory Project Stage I: Inventory of 10,000 of the museum's 33,000 displayed and stored collections
 - Focus is on installed art in 60 buildings across all three campuses and 2-dimensional Fine Art
 - 1,745 objects located, verified and labeled in FY2020
 - *COVID-19 closures slowed progress; UM GA's were permitted to return to the archive after the initial shutdown and continue the inventory project.
 - The UM was awarded \$130,000 in November 2019 from the IMLS for a Collections Stewardship grant to finance two Research Assistant's salaries for 14 months for Stage I.

- The UM applied for a second Collections Stewardship grant from the Institute for Museum and Library Services (IMLS) in FY21 to fund salaries for Stage II.

11.5 Evidence of Organizational Effectiveness

Organizational effectiveness is delineated below. The UM is classified as a Public Service center, but in fact, its activities encompass all three areas: instruction, research, and service.

1. Instruction:

- The UM Executive Curator is engaged in direct teaching for the graduate Museum Studies course HIST582 Practicum in Exhibition and Program Management.
- UM staff provide indirect teaching and major instructional support for HIST580 HIST581, HIST590, INTG500, and INTG593.
- In coordination with faculty of multiple disciplines from the College of Arts and Sciences, the UM facilitates tours of the collections archives and provides access to objects and data for laboratory and classroom hands-on educational experiences for ART202C, ART305, ART520, HIST304, ANTH404, ANTH420, ANTH490, ANTH491, ANTH570 courses.
- Each graduate research assistant (8 term GA's per year) receives 180 hours per semester of valuable, hands-on training in museum object handling, cataloging, interpreting, and preservation skills.

2. Research: The UM supports research for SIUE faculty and students and external scholars in art, anthropology, history, and museology by maintaining and providing access to its catalogue, digital images, archives, and collections objects.

- Research outputs include papers, theses, poster sessions, journal articles, conference presentations, book chapters, and exhibitions.
- UM staff provide support for and serve as primary investigators on internal and external grant proposals and projects.
- The UM Executive Curator collaborates with faculty on publications and presentations for regional and national media and organizations.
- The UM maintains institutional memberships in local, regional and national professional organizations.

3. Public Service: The UM strives to operate as a visitor gateway to the campus and the University through public outreach and interactive experiences.

- The UM brings exhibitions and programming to local galleries, K-12 schools, regional community colleges, and senior centers.
- The UM operates an active loan program, enriching community relationships locally, regionally, and state-wide, providing loans of UM collections objects and creating interpretive materials for arts centers, historical sites, museums and educational institutions.
- An important facet of the UM's public service mission is to act as a responsible steward for the state-owned collections that it holds in trust for the public of Illinois. The UM works diligently to provide appropriate administration and care in order to legally, ethically, and effectively manage, document, preserve, curate, and provide access to the collections in accordance with the best practices and standards of the

museum profession as promulgated by the American Association of Museums and all relevant state and federal laws and international agreements.

- Improve governance and decision-making to increase communication and teamwork amongst stakeholders.
 - The UM has established strategic goals and milestones incorporating recommendations from its internal and external assessments outlined in the UM's 2020 Strategic Plan.
 - University Museum Advisory Council (UMAC) meets two or three times per year to guide and assist the administration of the UM to review and revise the Museum's mission and policies, develop a long-term plan for the museum and be responsive to its obligations.
- Enable greater access and care of the collections by establishing greater intellectual and physical control over the holdings of the museum better serving the UM's stakeholders and the publicly owned collections.
 - Multi-stage full inventory commenced in May 2018 (full collection is projected at more than 32,000 objects. Rough projections suggest 9 FTE years to complete.)
 - Stage 1A (currently underway) comprises all objects on display over 3 SIUE campuses in more than 60 buildings (approximately 1800 objects).
 - Stage 1B (currently underway) comprises two of the most utilized collections: the two-dimensional Fine Arts collection and the Native American collection which are in storage in the museum archive building.
- Enhance the visibility of the Museum and its collections to the broader campus and its community
 - During inventory, labelling is placed with almost every item on display. This labelling is an effort on the part of the museum to educate the SIUE community about each individual artwork and provide evidence of the unique benefits of the Art on Campus program. Labelling identifies each artwork by artist, title, media and catalogue number and is labelled with the UM's logo to promote the cultural significance of the museum's collections on campus and provide a contact and a context for every piece.
 - Systems Management and Accountability: integrative practices which affect the UM's instructional, research, and public service capabilities across the board. Areas which have been overhauled, reorganized, streamlined and standardized include staff and GA hiring and retention, budgeting, records management, object tracking, storage, security, climate control, cataloguing procedures, policy development, and governance strategies. Physical resources and facilities have been reassessed and structural and organizational improvements have been made to the records area, workshops, and storage spaces encompassing surplus of antiquated and excess equipment and materials, consolidating and expanding collections storage, and reorganizing and increasing dedicated working and teaching space.

12. Institutional Assessment

12.1 Date of Last Review (list the year of the last program review)

12.2 Decision at Last Review _____ Center/Institute in Good Standing
_____ Center/Institute Flagged for Priority Review
_____ Center/Institute Suspended

12.3 Explanation (briefly provide any explanation necessary of the institutional assessment or plans for pending program review)

RESOURCES: SIUE University Museum

Financial Resource	FY2020	FY2019	FY 2018	FY2017	FY2016
Revenues					
State Appropriations	79,866	48,376	45,510	43,018	36,922
Income Fund	53,244	72,563	67,516	64,195	55,382
Grants & Contracts					0
Foundation Funds					0
Transfers from CAS		6652	6,651	6,651	7,001
Other Revenue/Sales					0
Total Revenues	133,110	127,591	119,177	114,195	99,305
Expenditures*					
Salaries (staff & graduate assistants)	113,180	103,917	95,532	89,963	77,033
Wages	0	0	0	1,088	120
Travel	0	426	340	446	0
Equipment	406	2,291	1,159	1,670	716
Commodities	1,807	4,116	5,520	2,644	2,369
Contractual Services	10,318	9,495	9,905	11,174	11,499
Automotive	5,401	5,567	5,624	5,673	5,379
Telecommunication	1,346	1,357	1,413	1507	2,514
Total Expenditures	132,458	127,169	119,493	114,165	99,630
Revenue Minus Expenditures	652	422	(316)	30	(325)

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	.33 FTE	1.5 FTE	2.0 FTE	2.0 FTE	1.5 FTE
Staff	1.17 FTE	.5 FTE			
Graduate Assistants	.90 FTE	.43 FTE	.75 FTE	.75 FTE	.75 FTE
Student/Temp workers	.25 FTE	.34 FTE	.1 FTE	.05 FTE	.05 FTE
Total Staffing	2.65 FTE	2.77 FTE	2.85 FTE	2.80 FTE	2.30 FTE

CENTERS AND INSTITUTES
ANNUAL REPORTING

Report For: July 1, 2019 – June 30, 2020

(IBHE Approved and/or Illinois State Statute Established Only) *

1.	Reporting Institution	Southern Illinois University Edwardsville						
2.	Center/Institute	WSIE-FM, 88.7 "The Sound", broadcasting at 50 kilowatts from the SIUE Campus						
3.	Date	3/15/2021						
4.	Director	Jason Church						
	4.1 Telephone	618-650-3607						
	4.2 E-mail	jaschur@siue.edu						
5.	Year Established	A request for the radio station construction permit was submitted to the Federal Communications Commission (FCC) in October 1968; the station license application was submitted to the FCC in 1969; the FCC granted the license the following year; and the station went on the air for the first time on Sept. 4, 1970.						
6.	Illinois State Statute (if pertinent)	N/A						
7.	Reporting Unit	Office of the Chancellor/University Marketing & Communications						
8.	Type	<div style="text-align: center;">Activity (check all that apply)</div> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Instructional</td> <td style="border: 1px solid black; text-align: center;">X</td> </tr> <tr> <td>Research</td> <td style="border: 1px solid black;"> </td> </tr> <tr> <td>Public Service</td> <td style="border: 1px solid black; text-align: center;">X</td> </tr> </table>	Instructional	X	Research		Public Service	X
Instructional	X							
Research								
Public Service	X							

* Complete this form for each center and institute established (or that is in the process of being established) through the Illinois Board of Higher Education approval process (23 Illinois Administrative Code 1050) or by specific Illinois state statute. See University Guideline 2.4 for details. This report will be completed by the center or institute after conclusion of the academic/fiscal year.

9. Overview

9.1 Description

Serving the Greater St. Louis Area and Southwestern Illinois, WSIE-FM, 88-7 the Sound, provides quality music programming, SIUE sports and student programming for a widely diverse listenership, while broadening the visibility of Southern Illinois University Edwardsville and enhancing its image as an essential regional resource.

9.2 Mission

WSIE will provide a public service to Southern Illinois University Edwardsville, the Greater St. Louis Area and the Southwestern Illinois region through the delivery of professionally constructed radio programming while furthering the educational process for SIUE students across multiple disciplines.

9.3 Objectives

WSIE will strive to achieve the development, promotion and provision of a radio station format which engenders listener loyalty, underwriting, and on-going financial support. WSIE-FM will also strive to serve the communication needs of SIUE, the Greater St. Louis Area and the Southwestern Illinois region through the delivery of community-focused information, sports and public affairs programming. WSIE-FM will strive to provide SIUE students with a myriad of opportunities to work in, and experience the business of radio broadcasting through interaction with the professional staff of WSIE through the development and execution of high-quality student programming.

10. Advisory Board

10.1 Advisory Board - Membership

The WSIE Advisory Board is comprised of SIUE Faculty, staff and alumni, as well as supporters of the radio station from the surrounding region. Members (during the reporting period) are Mr. Carlos Bedoya, Ms. Robin Boyce, Ms. Bonni Burns, Mr. Jason Church, Mr. Jason Coomer, Ms. Kim Durr, Mr. Musonda Kapatamoyo, Mr. Bob Kochan, Dr. Kevin Leonard, Mr. Doug McIlhagga, Ms. Stephanie Lewis and Mr. Michael Silverman.

10.2 Number of Meetings (In This Year) 2

11. Annual Performance

11.1 Performance Measures *

Measure	Target for Year	Results in Year
1. Generate \$12,000.00 per month in revenue	\$144,000.00	\$164,903.82
2. Increase audience size by ten percent	Average weekly cume of 62,000	N/A, as Nielsen no longer reports on non-subscribing stations.
3. Increase Social Media footprint by 15 percent	2212 likes on FB	2760 likes on FB
4.		
5.		

* Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities.

11.2 Major Accomplishments (In This Year)

- Throughout the COVID-19 pandemic, we were able to maintain our previous level of underwriting income.
- In March of 2020, WSIE offered a limited amount of pro-bono underwriting spots for struggling local businesses.
- We welcomed our first independent study student (Ashlyn Smith).
- Increased Facebook likes by 24%
- Continued building campaign to bring more student volunteers to work at WSIE.
- Awarded various grants, including the Illinois Arts Council (\$7,800), Ameren Illinois (\$5,000) and Sam's Club (\$1,000).
- Established relations with many new underwriter partners such as Carol House Furniture, SSM Health, Woods Basement Systems, Edward Jones and Empire Comfort Systems.
- Launched new WSIE website with the help of University Marketing and Communications.
- Continued to condition station's format to skew toward younger demographics and a wider audience.
- Broadcast music to accompany City of Edwardsville's July 3rd fireworks display.
- Our May – June 2020 #SaveWSIE campaign was a success in covering all of our expenses from last fiscal year.
- WSIE applied for and officially became a Billboard-reporting station.

11.3 Evidence of Support for Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning

WSIE Continues to broadcast promotional announcements designed to increase awareness of the effectiveness of SIUE as an educational institution. WSIE also broadcasts promotional announcements on the expanding in-state/out-of-state tuition program. WSIE also broadcasts Cougar athletic contests, including men's and women's basketball, men's baseball and women's softball.

11.4 Evidence of Support for Center/Institute Objectives

WSIE continues to work with the faculty of the Department of Mass Communications to provide students a unique learning opportunity at the radio station. WSIE also works with the Office of the Chancellor and the Dean of the College of Arts and Sciences to produce and broadcast the half hour program "Segue." The program highlights the work of SIUE and builds upon its relationship with the greater community by conducting interviews with community, civic, and political leaders.

11.5 Evidence of Organizational Effectiveness

We successfully recruited additional volunteers to replace departing voice-trackers. A complete list of engineering responsibilities was created and stored for easy access by staff members. The public inspection file was better arranged in preparation for the eventual migration to an all-electronic system with the Federal Communications Commission. Increased underwriting / community support.

12. Institutional Assessment

12.1	Date of Last Review	<u>FY 2019</u>
12.2	Decision at Last Review	<u>X</u> Center/Institute in Good Standing <u> </u> Center/Institute Flagged for Priority Review <u> </u> Center/Institute Suspended
12.3	Explanation	(briefly provide any explanation necessary of the institutional assessment or plans for pending program review)

RESOURCES: WSIE-FM, 88.7

Financial Resources	FY2020	FY2019	FY2018	FY2017	FY2016
Revenues					
State Appropriations	.00	.00	70,620.00	141,240.48	141,240.00
Income Fund	.00	.00	.00	36,828.15	.00
Grants & Contracts	50,675.00	.00	.00	2,600.00	.00
Fees from Underwriters	50,053.00	86,665.50	66,072.94	51,342.96	23,213.50
Rental Revenue	9,893.00	9,606.78	9,327.25	8,736.00	8,736.00
Listener Gifts to the SIUE Foundation	54,282.82	23,500.00	16,103.70	26,255.00	22,171.05
Total Revenues	\$164,903.82	\$119,772.28	\$162,123.89	\$267,002.59	\$195,360.55
Total Revenues Minus State Appropriations and Income Fund	\$164,903.82	\$119,772.28	\$91,503.89	\$88,933.96	\$54,120.55
Expenditures*					
Salaries	189,176.00	182,618.12	156,674.65	67,957.50	70,391.84
Wages	676.00	1,937.76	16,863.89	75,863.19	75,479.58
Equipment	.00	21,272.76	1,125.10	2,503.52	588.00
Commodities	1,164.00	4,260.47	4,354.96	592.00	2,111.43
Contractual Services	18,442.29	17,197.72	24,817.59	25,095.64	25,725.43
Telecom	9,362.00	9,299.53	8,639.34	8,560.30	8,379.10
Expenditure from Foundation Account	.00	.00	.00	369.75	3,251.70
Total Expenditures	\$218,820.29	\$235,962.36	\$212,475.53	\$180,941.90	\$185,927.08
Revenue Minus Expenditures	(\$53,916.47)	(\$116,190.08)	(\$50,351.64)	\$86,060.69	\$9,433.47
Revenue Minus Expenditures Minus State Appropriations and Income Fund	(\$53,916.47)	(\$116,190.08)	(\$120,971.64)	(\$92,007.94)	(\$131,806.53)

* Categorize expenditures in easily understood, consistent categories (e.g., salaries, Graduate Assistant support). Add additional rows as necessary.

Staffing (Full Time Equivalent)	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty					
Staff	3	3	2.5	2	2
Student Workers	0	1	1	5	4
Total Staffing	3	4	3.5	7	6