# Centers and Institutes

# **Annual Reporting**

Fiscal Year 2023



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 2024

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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 FY2023 are provided for the SIU Board of Trustees. It is the ninth 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, 2022 – June 30, 2023

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

1.	Reporting Institution	Southern Illinois University Carbondale		
2.	Center/Institute	Advanced Energy Institute		
3.	Date	February 29, 2024		
4.	Director	Ken B. Anderson		
	4.1 Telephone	618-536-5521		
	4.2 E-mail	kanderson@siu.edu		
5.	Year Established	1974		
6.	Illinois State Statute	N/A		
	(if pertinent)			
7.	Reporting Unit	Office of Vice Chancellor for Research		
/.	reporting offic	Office of vice charicellor for Research		
8.	Туре	Activity		
	/r	(Check all that apply)		
	Instructional			
	Research	X		
	Public Service	X		

#### 9. Overview

#### 9.1 Description

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

- 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

Advanced Energy Institute is responsible for coordinating and facilitating energy related research and scholarship across all aspects of the SIU Carbondale campus, including promoting externally funded energy-related research, development, and deployment (RD&D) and assisting in development of energy related academic programs.

#### 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.
- 4) Establish Illinois Energy Development Park as the regional test bed for advanced energy technologies.

#### 10. Advisory Board

#### 10.1 External Advisory Board - Membership

- John S. Mead, AEI Director Emeritus
- Kevin O'Brien, Director, Illinois Sustainable Technology Center, Illinois State Water Survey
- Norm Peterson, Director, Government Relations, Argonne National Laboratory
- Thomas A. Sarkus, Division Director, Major Projects Division, National Energy Technology Laboratory, U.S. Department of Energy
- Don Stevenson, Vice President and Managing Director, Energy Supply & Conversion,
   Gas Technology Institute
- John Thompson, Director, Technology and Markets, Clean Air Task Force

#### 10.2 Number of Meetings

In This Reporting Period	1
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#### 11. Annual Performance

#### 11.1 Performance Measures\*

Mea	sure	Target for	Results in
		Year	Year
1.	Faculty Seed Grants awarded	Up to 5	3*
2.	Graduate Assistant positions	1-2	8*
3.	New Course Development contracts awarded	2-3	3*
3.	Undergraduate Scholarships awarded	Up to 4	4
4.	Student research grants awarded	Up to 5	0
5.	Community outreach events	2	1
6.	Visiting researchers	0	0
7.	Publications	Up to 5	5

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

#### 11.2 Major Accomplishments (In This Year)

- The Advanced Energy Resource Board (AERB) approved the revised bylaws, focusing on several sections that included board appointments and in-person meetings at the February 22, 2023, Annual Meeting in Springfield, IL.
- An AEI matching funds award was given to a previously supported Energy Boost seed grant participant for his success in acquiring an externally funded grant.
  - o Dr Yong Gao received an NSF award of \$250,000.
- Continuation of the New Course Development Grant program; course created in the Geography/School of Earth Systems and Sustainability.
- Awarded 2 Undergraduate and 2 IL Coal Country Energy Boost Scholarships. The program supports 4 continuing undergraduate scholarship recipients.

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

AEI established and maintained 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 support of graduate assistantships.

#### 11.4 Evidence of Support for Center/Institute Objectives

- AEI supported students with scholarships.
- ACERC was sensitive to faculty research objectives by offering matching funds for external grant proposals.
- Submission of congressionally directed spending requests for efforts toward revitalizing the Illinois Energy Development Park (IEDP) project, entitled *Renewing the IEDP*.
- AEI oversaw the eviction of previous tenants from building 2204 at Carterville and oversaw completion of necessary repairs to the building. AEI continued efforts toward revitalization of the site to ensure optimal function and safety for future research activities. As in the previous fiscal years, there continues to be no water supply to the site.
- AEI continues to foster coordination and maintenance efforts with the SIU Facilities and Energy Management.

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#### 11.5 Evidence of Organizational Effectiveness

Over the course of the reporting period, AEI maintained existing grants and scholarships, supported undergraduates, graduate assistants, continued to facilitate new faculty-based energy research programs to meet newly identified needs. AEI sponsored and coordinated a regional meeting of the Federal Interagency Working Group (IWG) for coal communities during this reporting period.

#### 12. Institutional Assessment

12.1	Date of Last Review	March 2017
12.2	Decision at Last Review	X Center/Institute in Good Standing Center/Institute Flagged for Priority Review Center/Institute Suspended
12.3	Explanation	

**RESOURCES: Advanced Energy Institute** 

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues:					
State Appropriations	123,357	126,150	117,741	104,998	225,315
Income Funds	150,352	161,666	160,722	170,083	184,059
Grants*	2,177,389	2,357150	2,709,863	2,631,930	3,003,443
Total Revenues	2,451,097	2,644,965	2,988,325	2,907,011	3,412,817
Salaries: Staff/Faculty	220,663	207,627	200,978	158,004	405,427
Graduate Assistant Support	30,786	71,009	16,472	70,376	59,050
Student Worker Support (Sources: State and FWS Matching)	11,645	6,931	2,774	7,632	8,123
Travel	2,081	6,123	0	35	218
Commodities	15,365	26,384	5,063	4,255	14,253
Equipment	30,635	2,668	189	0	388
Contractual Services	25,474	27,189	21,691	74,923	394,213
Automotive	521	1,299			
Student Research Awards and Scholarships	15,000	40,000	30,000	45,000	11,000
Awards and Grants— Property Damage Settlement				(15,937)	
Telecommunication Services	1,935	2,105	8,962	8,570	8,285
Fringe Benefits	55,498	51,091	43,000	43,658	107,413
Facilities and Administrative Costs	29,317	30,183	19,040	24,975	71,870
Total Expenditures	438,920	472,609	348,169	421,490	1,080,241
Revenue Minus Expenditures	2,012,177	2,611,099	2,640,156	2,485,521	2,332,576

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
Faculty	.25	.25	.25	0.0	.083
Staff	2.25	2.25	2.25	3.3	6.300
Total Staffing	2.50	2.50	2.50	3.3	6.383

<sup>\*</sup>Note: The way the university reports this line shows the annual balance of grant funds for expenditure over a multi-year period.

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

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

1.	Reporting Institution	SIU Carbondale
2.	Center/Institute	Cannabis Science Center
3.	Date	February 29, 2024
		Gary R Kinsel
4.	Director	
	4.1 Telephone	_(618) 453-6482
	4.2 E-mail	grkinsel@siu.edu
5.	Year Established	2021
6.	Illinois State Statute (if pertinent)	(N/A)
	(ii portinont)	
7.	Reporting Unit	Office of Vice Chancellor for Research
8.	Туре	Activity
		(check all that apply)
	Instructional	X
	Research	Х
	Public Service	X

<sup>\*</sup> 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 Southern Illinois Cannabis Science Center (SICSC) is the hub for SIU cannabis/hemp research, collaboration, education, and facilities development. The center currently focuses on the following activities:

- Hosting an annual symposium on hemp/cannabis
- Co-Sponsoring an annual "Hemp, Hops & Shrooms" cultural and educational festival with the city of Carbondale
- Engaging in community outreach to local farmers, processors and retail outlets
- Seeking, curating and disseminating funding opportunities for the SICSC and center affiliated faculty
- Researching agricultural best practices for all varieties of hemp—fiber, seed and flower crops
- Developing opioid addiction-mediation approaches for rural southern Illinois
- Researching cannabis medicine for prevention and treatment of cancer, epilepsy, seizure, and chemo--brain (side effect of chemotherapy)
- Analysis of economic impact of tax laws, alternative cannabinoids on the cannabis industry

#### 9.2 Mission

To foster collaborations among various academic disciplines and industries to advance our knowledge and understanding of how best to utilize hemp/cannabis for the benefit of humankind and the environment.

#### 9.3 Objectives

- 1. To formally establish a collaborative network for hemp and cannabis research.
- 2. To establish specific projects with defined goals.
- 3. To identify funding streams to support these projects.
- 4. To serve as a clearinghouse for hemp and cannabis related information.
- 5. To host symposia and outreach activities.
- 6. To bring into working groups individuals with a common interests in hemp / cannabis: Agricultural; Analytical; Biomedical, and Community.
- 7. To bring together Healthcare, Educational and Commercial interests to advance the impact of hemp / cannabis research on economic development in the southern Illinois region.

#### 10. Advisory Board

#### 10.1 Advisory Board - Membership

Paul Purcell, Illinois Premium Extracts, CEO and founder

Kyle Baker, EcoBuds; CEO and founder Curt Jones, 40 Below Joe; CEO and founder

Mark Peysakhovich, MBM Advantage; CEO and founder

Lawrence Hatchett, MD; Heartland Regional Medical Group; Chief of Urology

Lynn Anderson Lindberg, Innovation Center @ SIU; Director

#### 10.2 Number of Meetings (In This Year) 1 in conjunction with symposia

#### 11. Annual Performance

#### 11.1 Performance Measures \*

Measure		Target for Year	Results in Year	
1.	Grants	3	4	
2.	Publications	5	0	
3.	Presentations	10	28	
4.	Community outreach events	2	8	
5.	Undergraduate Scholarships	1	0	

<sup>\*</sup> 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)

Below is a listing of the major accomplishments of the SICSC in CY2023. It should be emphasized however that this listing is focused on the accomplishments of the Center itself and there are numerous impactful accomplishments by the individual faculty members of the Center, including funding for basic research, establishment of international agreements, engagement with industrial partners, etc., that are not reflected in this listing. In many cases these accomplishments are leveraged by the existence of the SICSC and relationships that are established through the participation of the faculty member in the Center.

- The SICSC established several new accounts with the SIU Foundation for fundraising in support of research and education (3/22/2023). Money for these activities was raised through the 2023 SIUC Day of Giving.
- The SICSC organized the 4<sup>th</sup> Annual SIU Hemp / Cannabis Symposium (9/9/23) bringing together academic researchers, students, industrial investors and state government representatives to discuss the future of the hemp / cannabis industry in southern Illinois. The Symposium included 11 oral presentations (including one by David Lakeman, Cannabis Division Manager from the Illinois Department of Agriculture), 9 SIUC student poster presentations and 9 different exhibitors from regional businesses.
- Faculty and staff from the SICSC supported and actively participated in the 2<sup>nd</sup> Annual City of Carbondale "Hemp, Hops & Shrooms Festival" (9/23/23) providing both hemp related demonstrations and a series of educational presentations.
- Received final approval from the SIU President's office for several academic RME's (11/16/23) to include the addition of a Cannabis Science and Production Specialization in

the School of Horticulture Bachelor of Science degree program, a minor in Cannabis Production Systems, and an Undergraduate Certificate in Cannabis Production Systems. These new programs will all appear in the 2024-2025 SIUC Academic Catalogue.

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

The SICSC clearly addresses 2 of the 4 goals of the Illinois Public Agenda (<a href="https://www.ibhe.org/assets/files/070109">https://www.ibhe.org/assets/files/070109</a> Public Agenda.pdf ), namely Goal 3: Address Workforce Needs and Goal 4: Enhance Economic Growth. Cannabis / Hemp has the potential to emerge as a major cash crop for the southern Illinois region – either from the perspective of hemp fiber production or from the perspective of cannabinoids production. Both crop-related products have huge, and expanding, market potential. Hemp fiber is used in a broad swath of products, from building materials to composite plastics, from paper to cloth production, and from biomass to animal feed. Similarly, the medicinal potential of many cannabinoids has only recently begun to be studied and early studies show enormous potential for these compounds in the treatment of epileptic seizures, chemotherapy induced nausea and pain management, among a host of other illnesses. Thus, the market potential of this aspect of hemp cultivation is only just beginning to be realized.

The SICSC is contributing directly, through research and education, to the **training of a workforce** capable of growing, harvesting, testing, and processing the hemp / cannabis plant. This workforce is already needed as the growth of hemp / cannabis, both in Controlled Environment Agricultural facilities and in open plots, has expanded dramatically since the federal legalization of hemp (2018) and the relatively recent state legalization of adult-use cannabis (2020). The **enhancement of economic growth** for the state of Illinois is also easily supported through recent economic analyses of the market for hemp / cannabis in Illinois which shows that total sales of adult-use cannabis in FY22 exceeded \$1.5B and contributed \$445.3M to the tax-base of the state. It is also estimated that 30,000 jobs in the state of Illinois are directly supported by the industry. With proper development, the market for Illinois hemp is likely even larger and more sustainable.

The SICSC also addresses all 6 of the SIU Board of Trustees and SIU System Strategic Goals (https://siusystem.edu/about/strategic-plan/feedback.shtml) and all 5 pillars of the SIU Carbondale Strategic Plan (https://imagine2030.siu.edu/). In terms of SIU System Goal 1: Academic Innovation and Student Success (SIUC Pillar 1 - Student Success & Engagement), the SICSC has been instrumental in the creation of new academic degree programs and certificates which prepare students for jobs in the emerging hemp / cannabis market. In terms of Goal 2: SIU System Anti-Racism, Diversity, Equity and Inclusion (SIUC Pillar 2 - Diversity, Equity & Inclusion), the SICSC actively recruits minority students to enroll in the newly established degree and certificate programs associated with hemp / cannabis agronomy and has successfully established scholarship support for a minority student through engagement with a local physician. In terms of SIU System Goal 3: Community Impact (SIUC Pillar 3 – Branding & Partnerships), the SICSC promotes and supports the city of Carbondale (Hemps, Hops, and Shrooms Festival) and numerous private sector businesses through direct engagement and through the annual SIU Hemp / Cannabis Symposium. The SICSC has worked to create public-private partnerships that can form the foundation for future economic development. In terms

of SIU System Goal 4: Research, Creative Activity and Partnerships (SIUC Pillar 4 – Research & Innovation), basic research on Hemp agronomy, Hemp genetics, medicinal properties of cannabinoids, indoor cultivation, and consumer product analysis is all being pursued by research active faculty at SIU Carbondale. These activities lead to external funding for the university and enrichment of the educational experience for our students, both graduate and undergraduate. In terms of SIU System Goal 5: Faculty and Staff, the scholarly work driven by the research conducted in the SICSC provides the enriched research environment that allows SIU Carbondale to recruit new research active faculty to the campus. In terms of SIU System Goal 6: Infrastructure, the SICSC brings in research and overhead dollars which allow for investments in the teaching and research infrastructure of the institution. The SICSC is actively seeking public-private partnership opportunities to further augment these infrastructure improvements. Finally, in terms of the SIUC Pillar 5 – Sustainability, research has shown that hemp / cannabis can be used as a rotation crop, thereby supporting the sustainability of rowcrop agriculture, can be used for production of environmentally friendly fiber to replace petrochemical based polymers, can be used in the construction of environmentally sustainable housing, and can be converted into biomass for potential use in the production of alternative energy and animal feed. Development of Hemp / cannabis as a resource clearly aligns with the sustainability mission of the SIU Carbondale campus.

#### 11.4 Evidence of Support for Center/Institute Objectives

The primary evidence of support for the objectives of the Southern Illinois Cannabis Science Center lies in the very large number of engagements Center members have had with state government, public and private entities over CY2023. From these interactions it is clear that the mission of the Center is being accomplished and the Center is filling an important role in providing service to these groups. Evidence of this role is indicated by the activities listed below.

- Engaged with the Illinois Department of Agriculture, Cannabis Division, throughout the CY in
  discussions regarding regulatory challenges for universities engaging in Hemp / Cannabis
  Research. Discussions focused on bottlenecks encountered in obtaining a federal DEA
  Controlled Substance License to allow research and product testing to be performed.
  Provided a tour of the research and testing facilities at SIUC to Angelo Bommarito, Director
  of the State Cannabis Testing Laboratory in October 2023. These discussions are ongoing.
- Members of the SICSC participated in numerous outreach and engagement activities throughout CY2023 including interviews on the WJPF Tom Miller show (January 2023), academic seminars at SIUC (March 2023), engagements with numerous industrial representatives (June 2023 (Valoya Grand Opening), August 2023 (NuEra virtual meeting), November 2023 (IESO Production Facility tour)).
- Participated in a 1-day economic development workshop at the SIUC Agricultural Research
  Center focused on the potential for hemp production in southern Illinois. Participants
  included representatives from the Global Hemp Association, Hempwood
  (<a href="https://bootrpc.com/">https://bootrpc.com/</a>), the Missouri Bootheel (<a href="https://bootrpc.com/">https://bootrpc.com/</a>), far Western
  Kentucky and southernmost Illinois regional economic development organizations, and
  Growmics (SIUC), along with representatives from SICSC.
- Met with staff members of the Illinois Republican Congressional Committee (9/29/23).
   Gave a tour of the IDCEO funded BioLaunch facility and discussed the future of hemp production in southern Illinois.

- Leadership of the SICSC fielded numerous questions regarding the potential federal rescheduling of cannabis from a Schedule 1 narcotic to a Schedule 3 narcotic pending a recommendation from the US Dept. of Health and Human Services. Interviews were provided to WSIL (<a href="https://www.wsiltv.com/news/department-of-health-and-human-services-recommends-change-in-cannabis-regulation/article\_4ae0d9ea-4d0f-11ee-b73a-f354d05579ca.html">https://www.wsiltv.com/news/department-of-health-and-human-services-recommends-change-in-cannabis-regulation/article\_4ae0d9ea-4d0f-11ee-b73a-f354d05579ca.html</a>), WTAX (<a href="https://wtax.com/news/101101-its-hard-to-imagine-a-better-year/">https://wtax.com/news/101101-its-hard-to-imagine-a-better-year/</a>), KSDK (<a href="https://www.ksdk.com/article/news/local/marijuana/reclassification-could-benefit-cannabis-business-consumers/63-b5626590-1a36-48e5-b61e-2befa79a3ebb">https://www.ksdk.com/article/news/local/marijuana/reclassification-could-benefit-cannabis-business-consumers/63-b5626590-1a36-48e5-b61e-2befa79a3ebb</a> and Podcaster Robert Richman (<a href="https://robertkne.podbean.com/">https://robertkne.podbean.com/</a>).
- Leadership of the SICSC traveled to Springfield, IL during the Saluki Springfield Takeover (10/25/23) and met with Jerry Costello, Jr. (Director, Illinois Dept. of Agriculture), David Lakeman (Cannabis Division Manager, Illinois Dept. of Agriculture), and Angelo Bommarito (Manager, Illinois Dept. of Agriculture, Cannabis Testing Laboratory) to discuss the future of hemp agriculture to the economy of southern Illinois.
- Provided tours and degree program information to educational administrators visiting from Texas on the IMAGINE Visit (11/7/2023). The Texas groups represented included the "Education is Freedom" group (<a href="https://educationisfreedom.org/">https://educationisfreedom.org/</a>) and the "Gear Up" group (<a href="https://www.texasgearup.com/">https://www.texasgearup.com/</a>).

#### 11.5 Evidence of Organizational Effectiveness

The SICSC continues to engage with regional and national businesses in the hemp / cannabis industry, engages with and supports the city of Carbondale during its Hemp, Hops and Shrooms festival and continues to organize and deliver a high-quality Hemp / Cannabis symposium that attracts state government representatives, industry, and academic researchers to the SIUC campus. The SICSC is also actively engaged in expanding the educational opportunities for students who wish to study hemp agronomy and horticulture, controlled environment agriculture, hemp and consumer product testing, etc. These efforts will soon be reflected in new degree and certification options for students at SIU Carbondale.

#### 12. Institutional Assessment

12.1	Date of Last Review	Initiation of center in 2022			
12.2	Decision at Last Review	X Center/Institute in Good Standing Center/Institute Flagged for Priority Review Center/Institute Suspended			
12.3	Explanation	(new Center founded June 2021, this is the 2 <sup>nd</sup> report)			

### **RESOURCES: Cannabis Science Center**

Financial Resources	CY2023				
Davis	0.00				
Revenues	0.00				
State Appropriations	0.00				
Income Fund	0.00				
Grants & Contracts	0.00				
Total Revenues	0.00				
Expenditures*	0.00				
Total Expenditures	0.00				
	_	<b>,</b>	T	T	
Revenue Minus Expenditures	0.00				

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

Staffing (Full Time Equivalent)	CY2023		
Faculty	0		
Staff	0		
*Total Staffing	0		

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

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

1.	Reporting Institution	SIU Carbondale
2.	Center/Institute	Center for Archaeological Investigations
3.	Date	01/29/2024
4.	Director	Dr. Mark Wagner
	4.1 Telephone	618-453-5055
	4.2 E-mail	<u>mjwagner@siu.edu</u>
5.	Year Established	1978
6.	Illinois State Statute (if pertinent)	N/A
	(ii portinone)	
7.	Reporting Unit	College of Liberal Arts
8.	Туре	Activity
		(check all that apply)
	Instructional	X
	Research	X
	Public Service	X

<sup>\*</sup> 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 who are state supported and three who are funded through external grants, and six temporary hires who were funded through external grants. All of whom are engaged in external grant acquisition, allowed for expanded hands-on student education, curation of archaeological collections, and field and laboratory research for state, federal, and private agencies.

#### 9.2 Mission

The CAI mission includes five key areas. 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 noncultural 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 3.5 million dollars in external grants between 2016-2023; (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. CAI Director Dr. Mark Wagner is in fact the current president of the state archaeological organization, the Illinois Archaeological Survey.

#### 9.3 Objectives

The current 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 in the form of applied or hands-on training to help prepare students for careers as professional archaeologists with private companies and/or government 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 recent years, we have expanded our external grant program by adding the Daniel Boone National Forest in Kentucky as one of our partners. We also continued our work with a National Battlefield Preservation grant from the National Park Service with 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 -	Mem	bershi	ip
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	- turnout   = out of the turnout of turnout of the turnout of
	r advisory board is lapsed due to retirements. We are currently in the process of constituting the board.
10.2	Number of Meetings (In This Year)

#### 11. Annual Performance

#### 11.1 Performance Measures \*

Mea	sure	Target for Year	Results in Year
1. External grants		5	6
2.	Intellectual & Professional Contributions	10	10
4.	UG student support	2	5
5.	Graduate student support	1	3

<sup>\*</sup> 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 FY23 included acquiring \$369,094 in new external grants. These grants include funding for research projects supported by the USDA Forest Service and Peabody Energy. With our continuing grants from previous years, the CAI had an annual grant total of \$644,273 for FY23. These grants allowed us to hire undergraduate and graduate students as UGAs, GAs, and Extra Help. These grants have also helped facilitate internships and fostered independent research opportunities by graduate and undergraduate students. Allowing for experiential learning opportunities beyond what they receive in the classroom. CAI faculty and staff also presented research papers at state, regional, and national meetings; authored book chapters; and wrote articles and presented lectures to the general public to increase SIUs positive image in the region. All CAI AP staff are Board Members of local and/or regional archaeological institutions. The CAIs curation facility staff are in the process of (1) rehabilitating and repatriating archaeological materials to the Hopi Tribe and Navajo Nation, and (2) searching old university collections that the CAI inherited from the University Museum or retired faculty members for human skeletal remains as required by 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 outlined in the Imagine 2030 plan. Specifically, the CAI provides students with the opportunity to engage in research, creative activity and service learning by providing students with experiential learning opportunities through our external grant program to help 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 state of the art ground penetrating radar (GPS) and gradiometric remote sensing units. The CAI Director and Interim Curator also works directly with undergraduates in conducting research as part of the SIUC REACH program. CAI staff have also worked to help establish a system-wide NAGPRA Compliance Committee that is headed by Dr. Sheila Caldwell. This committee supports the University's DEI initiatives by meeting throughout the year to update and inform relevant parties about the SIU System's efforts to engage in Native American tribal consultation and repatriation.

#### 11.4 Evidence of Support for Center/Institute Objectives

Please see sections 11.1, 11.2 and attached resources table 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 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 five states (Illinois, Indiana, Kentucky, Missouri, and Arizona). This continued expansion of our external grant program provides a stable footing for us to support our academic professional staff and students in an era of diminished state funding to support such positions.

12.	Institut	cional Assessment		
	12.1	Date of Last Review	2015	
	12.2	Decision at Last Review	Center/Inst	itute in Good Standing itute Flagged for Priority Review itute Suspended
	12.3	Explanation		splanation necessary of the institutional or pending program review)

**RESOURCES: Center for Archaeological Investigations** 

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State Appropriations	\$107,080.00	\$98,895.00	\$120,642.45	\$163,946.00	\$140,233.00
Starting Grant Balance	\$275,179.50	\$627,680.86	\$235,195.00	\$120,651.00	\$397,699.00
New Grants & Contracts	\$369,094.00	\$230,977.00	\$631,557.00	\$450,516.00	\$275,602.00
Annual Grant Total	\$644,273.00	\$858,657.86	\$866,752.00	\$571,167.00	\$673,301.00
Total Revenues	\$751,353.00	\$957,552.86	\$987,394.45	\$735,113.00	\$813,534.00
Expenditures*					
<b>Grant Funded Salaries</b>	\$299,532.07	\$226,081.97	\$199,724.36	\$207,986.00	\$462,316.00
Grant Funded OTS	\$59,157.58	\$40,376.00	\$39,346.78	\$127,986.00	\$90,334.00
State Funded Salaries	\$99,600.00	\$93,876.00	\$115,621.96	\$156,222.00	\$132,212.00
State Funded OTS	\$5,029.59	\$5,019.00	\$5,020.49	\$7,724.00	\$8,021.00
Total Expenditures	\$463,319.24	\$365,352.97	\$359,713.59	\$499,918.00	\$692,883.00
Revenue Minus Expenditures	\$288,033.76	\$592,199.89	\$235,195.00	\$120,651.00	\$407,699.00

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019	FY2018
Faculty	0	0	0	0	0	0
Staff (State Supported)	1.5	1	1.5	1.5	2	2
Staff (Grant Supported)	3.5	2.5	3	3	3	3
Extra Help/Temp (Grant Supported)	6	4	4	3	3	3
Total Staffing	11	7.5	8.5	7.5	8	8

### CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

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

1.	Reporting Institution	Southern Illinois University Carbondale
2.	Center/Institute	Center for Autism Spectrum Disorders (CASD)
3.	Date	February 29, 2024
4.	Director	Denise Croft
	4.1 Telephone	618-453-7130
	4.2 E-mail	Denisecroft@siu.edu
5.	Year Established	*2021
Illinois State Statute     (if pertinent)		IL Public Act 93-0395
7.	Reporting Unit	School of Psychological and Behavioral Sciences
8.	Туре	Activity
0.	Турс	(check all that apply)
	Instructional	X
	Research	X
	Public Service	X

<sup>\*</sup>Note: CASD became an IBHE-approved center in 2021 (start of FY2022)

<sup>\*</sup> 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 CASD provides teaching/student-training, community service, and research opportunities in the field of autism spectrum disorders (ASD).

- Teaching: We train graduate and undergraduate students in the area of service delivery across disciplines within the College of Health and Human Services (current disciplines include speech-language pathology (SLP) from the Communication Disorders and Sciences program, applied behavior analysis (ABA) from the Behavior Analysis and Therapy program, and clinical psychology (CP) from the Clinical Psychology program. We are in the process of expanding our teaching and service delivery, as described below.
- Research: We conduct research on our services. This includes student-led projects (e.g. theses), conference presentations, and publications. It also includes grant activity. We also conduct research on our supervisory/supervisee skills.
- Community Service: We provide a multitude of services to children with ASD and their families, which include screening and diagnostic evaluations, speech-language therapy, applied behavior analysis therapy, parent trainings, school trainings, and consultations.

#### 9.2 Mission

#### Mission Statement:

The Center for Autism Spectrum Disorders (CASD) is an interprofessional training and research center that provides high-quality services and leadership in the Southern Illinois region for individuals with autism spectrum disorder and their families. Our center focuses on Community Service, Student Training, and Research.

#### 9.3 Objectives

- Provide exemplary training in empirically –supported treatments and best professional practices to our student trainees
- Provide high-quality assessment and intervention to individuals with ASD and their families
- Provide needed consultation to our region to teachers, social workers, speech-language pathologists, administrators, school-psychologists, paraprofessionals, and parents/families
- Help inform state and local initiatives related to ASD
- Conduct research that spurs the field in the form of conference presentations and publications; provide research opportunities for our trainees (e.g. theses)
- Attain extramural funding
- Meet deliverables outlined by our grants
- Begin inter-professional practice (IPP), an empirically supported approach to treatment, and compare it to standard care (each discipline working separately) via research and assessment practices.

#### 10. Advisory Board

#### 10.1 Advisory Board - Membership

(provide the name and list the membership of the center/institute advisory board. If multiple boards are used, list each.)

### **CASD Advisory Board**

Name	Title	Affiliation
Janet R. Albers, MD	Chair, Professor, and Physician	SIU School of Medicine
Pam Altman, LCSW	Director of Clinical Services	Brehm Preparatory School
Stephanie Brown	Director	Autism Society of Southern Illinois
Terri Bryant	State Representative	Illinois House District 115
Chrissy Chancey, M.S., BCBA	Behavior Analyst	Specialized Training for Adult Rehabilitation
LaDonna Henson, M.S., CRC, LCPC	Director	SIU Evaluation and Developmental Center
Anna Little, MD	Pediatrician	Shawnee Health Service
Craig Rogers	Publisher	The Southern Illinoisan
Rocio Rosales, Ph.D., BCBA-D	Assistant Professor	Umass Lowell
Jenny Seachrist	Special Education Administrator	Effingham Community Schools
Terri West	Mother of Club '57 client	Center for Autism Spectrum Disorders

### New Advisory Board 1/22:

- \* Dr. Lina Slim SLP/BCBA, International IPP presenter
- \* Dr. Jon Hochmuth CDC, NIOSH Behavior-Based Safety \* Rebecca Trammel SLP, founder of CASD w/ Dr. Cuvo
- \* Dr. Rocio Rosales BCBA, UMass faculty
- \* Stephanie Brown director of autism society and parent
- \* Anna Little, MD Shawnee Health, medical

- \* Dr. Lea Maue Head Start / school
- \* Julie Pratt and Sherry Riedel CEO/COO, private practice of interprofessional clinic
- \* Dr. Kelli D. director of new nursing program at SIUC

#### 10.2 Number of Meetings (In This Year)

0 – establishing new advisory board as this one was established by the prior director and communication between members and new leadership has been difficult to obtain

#### 11. Annual Performance

#### 11.1 Performance Measures \*

Mea	sure	Target for Year	Results in Year
1.	Students trained in ASD screening, assessment, and treatment in our clinic	N/A	24
2.	Graduate Assistant Positions	N/A	12 (not all 12 each semester)
3.	Screening & diagnostic evaluations for children with ASD (measured in number conducted)	100 screenings & 50 diagnostics	113 screenings & 62 diagnostic evaluations
4.	Therapy hours provided for children with ASD and/or their parents	1000 hours	1048 hours
5.	Consultations with parents/families of children with ASD (measured in hours)	100 hours	225.75 hours
6.	Trainings provided to our clinicians at our clinic, school districts & personnel, and families	75	109
	Attain extramural grants (measured in number attained)	1	1
	Raise money via donations	N/A	\$1000
	Present our work at conferences (measured in number of presentations)	N/A	23
	Publish findings	N/A	7

<sup>\*</sup> 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)

(briefly summarize center/institute's major accomplishments for the year)

- Doubled our budget awarded State (TAP) grant to continue services at the CASD (from \$185,500 to \$362, 500 and received excellent standing)
- Contracted with Licensed Clinical Psychologist for in-house diagnostics. This provides clients/families with a medical diagnosis at CASD

- Continuation of inter-professional practice (IPP) meetings between BAT and CDS students, supervisors, faculty
- Applied for grant through the Organization for Autism Research to assess predictive validity of prerequisite skills to identify augmentative alternative communication modalities (proposal for \$40,000 – denied)
- Held interdisciplinary meetings with both the Nursing Program and Dental Hygiene
   Program to determine areas of need for cross-discipline work
- Although CASD lost their director in August 2022, Dr. Lesley Shawler, our BCBA Faculty
  Consultant and Principal Investigator on our TAP grant, kept CASD thriving by providing
  trainings to students, expanding GA appointments, and ensuring the continuation of
  therapy to clients, consultations, screenings, and diagnostics until a new interim
  director, Denise Croft, M.S., CCC-SLP, was hired in mid-October 2022.

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

(briefly provide any evidence of the center/institute's support for statewide, SIU system, or campus priorities in this year)

IPA Goal 1. *EDUCATIONAL ATTAINMENT*. – *Increase educational attainment to match the best-performing states* 

According to the Center for Disease Control, the prevalence of ASD in the U.S. is 1 in 36 children (CDC, 2023). Thus, for students in the Communication Disorders and Sciences (CDS, trains students in speech-language pathology (SLP)), Behavior Analysis and Therapy (BAT, trains students in applied behavior analysis (ABA)), and Clinical Psychology (CP, trains students in CP) programs to receive cutting-edge education, they require training in how to treat/serve individuals with ASD, as they likely will be working with individuals with ASD in their future careers. All three programs have graduate students who volunteer, take practicum classes, and/or have paid assistantships at the CASD. Undergraduate students in the BAT and CDS programs are also involved in serving as volunteers and increasing their training through practicum courses. In fall 2023, the Occupational Therapy Doctoral Program will begin to join the CASD clinic. Coordination with other programs at SIUC has begun to allow students to observe and volunteer including students from the School of Medicine, Recreational Therapy Program, Dental Hygiene Program, and Nursing Program.

IP Goal 2. COLLEGE AFFORDABILITY. – Ensure college affordability for students, families, and taxpayers.

ASD is one of the most common, serious developmental disabilities affecting children in the USA (CDC, 2022). Effective treatment for ASD is extensive, multifaceted, individualized, and, as a result, costly (Sharpe & Baker, 2007). This cost of raising and treating a child with ASD often places a substantial financial strain on the families. On average, the *annual* cost is over 100k **per child** age 5 and under, and over \$85k for children ages 6-17 (Candon et al., 2019). Thus, children with ASD have a high utilization of health care services, even when compared to children with other types of developmental delays (Croen et al., 2006; Mandell et al., 2006).

Moreover, many schools do not provide ABA or clinical psychology services, and SLP services are limited. Thus, financing services for children with ASD is a growing concern among families, private and public insurers, and policymakers at the state and federal levels (Council for Affordable Health Insurance, 2009). The CASD provides individualized, multi-disciplinary assessment and therapy services to children/adolescents with ASD and their families who live in the rural communities of Southern Illinois and do not have private insurance. Families receive these services at no cost to them, as the services are covered by IL's TAP grant. This much needed assistance is quite impactful to IL families. It also is impactful for IL taxpayers in general, as the better these families and children function, the fewer services they will require in the future, and the more they can focus on employment and other needs of the State. Having less future burden on our State's resources, and more parents working and paying taxes, frees more State resources for higher education. Additionally, the CASD funds 5-6 graduate assistantships for current students enrolled in the CDS and BAT programs, providing access to high quality programs, work and training experiences, while covering their tuition.

IPA Goal 3. HIGH QUALITY CREDENTIALS TO MEET ECONOMIC DEMAND. – Increase the number of high-quality post-secondary credentials to meet the demands of the economy and an increasingly global society.

Having well-trained students who are able to work with individuals with ASD helps our State. The CASD has increased the number of students trained from FY22 to FY23. This increase helps serve more future families and provides more high-quality trained individuals to enter the workforce. Families who have children with ASD can stay in the Southern Illinois region to receive care instead of having to drive long distances to other areas or States to receive it. By improving family functioning and the functioning of the individual with ASD, they are better able to function in their communities (pursue or sustain employment, utilize less public aid for healthcare, etc.). As noted under Goal 1, the CASD is strategically working towards expanding the number of programs involved with the Center. This will allow clients to receive an even wider array of services and more SIUC students to receive outstanding inter-disciplinary training. This better prepares our students for employment/practice in different employment sectors within Illinois and beyond.

#### 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)

Please note that this report is due in March 2023 while clinic and numbers are still ongoing and increasing for FY 23.

- Provide exemplary training in empirically supported assessment and treatment and best professional practices to our student trainees
  - Trained 38 students in such techniques/practices in FY 2023, with at least 4 additional students joining for training before the end of FY23.
  - Provided 1,324.25 supervision hours of students' work

- Provide high-quality assessment and intervention to individuals with ASD and their families
  - Conducted 113 screenings for ASD to determine if further assessment is warranted (goal/deliverable of 100 screenings)
  - Conducted 62 diagnostic evaluations at CASD (goal/deliverable of 59 diagnostic evaluations).
  - o Provided 1,048 hours of individual therapy to clients.
- In terms of quality, at the most recent progress check toward overall outcomes of those
  receiving treatment, 100% of therapy clients were rated by their therapists and their
  supervisors as progressing toward all treatment goals, with 100% of clients rated as
  maintaining treatment goals, and 100% of clients rated as having mastered their
  treatment goals, with only 11% of those making no progress toward a goal.
- Provide needed consultation in our region to teachers, other professionals and paraprofessionals, and parents/families
  - Provided 225.75 hours of consultation services to parents/families, with a goal of 100 hours of consultation for FY23.
    - Completed 109 trainings (goal of 75) for FY23 to undergraduate/graduate students, teachers, parents/families, paraprofessionals, social workers, early childhood workers, school administrators, speech-language pathologists, and school psychologists, dental hygiene students
    - For those who completed the satisfaction questionnaires, all but one were rated that they were Satisfied with the training provided (this was the highest ranking possible), with one person reporting they were Moderately Satisfied.
- Help inform State and local initiatives related to ASD
  - Provided feedback to TAP (our main funding source) regarding needs in the
     Southern IL area
- Conduct research that spurs the field in the form of conference presentations and publications; provide research opportunities for our trainees (e.g., theses)
  - o 23 conference presentations; student research in progress
  - o 2 Master's Thesis presentation completed in December 2022
  - o 3 Master's and 1 Undergraduate theses are active currently
- Attain extramural funding
  - Awarded IL TAP grant (\$362,500.00) at the start of FY2023
  - Applying for OAR grant for \$40,000 (denied)
  - Working with SIU foundation to obtain additional fundraising endeavors

#### 11.5 Evidence of Organizational Effectiveness

(briefly provide any evidence of the center/institute's organizational effectiveness in this year)

Over the course of FY2023, the CASD met its mission in terms of Community Service, Student Training, and Research. We provided numerous assessment and therapy hours to children with ASD and their parents/families despite the pandemic. We provided over 40 training sessions to professionals/paraprofessionals and their trainees to enhance their knowledge of ASD and how to more effectively work with children with ASD and their parents. We directly trained 38 students in service delivery so that they can perform a much-needed service for our State and beyond post-graduation (help children with ASD and their families). As part of this, we funded 6 per semester (12 total) students via graduate assistantships. We also delivered 23 conference presentations, sharing our research findings at the State and National levels. Our mission directly aligns with SIUC's goals of education, research, and community service, helping SIUC to meet its mission/strategic plan as well. Moreover, we helped SIUC meet three IPA goals, as detailed above.

Institut	ional Assessment					
12.1	Date of Last Review	(list the year of the last program review) N/A (we became an IBHE-approved center in FY2022)				
12.2	Decision at Last Review:	x_	Not applicable			
			Center/Institute in Good Standing			
			Center/Institute Flagged for Priority Review			
			Center/Institute Suspended			
			<del>.</del>			
12.3	Explanation	Not Appli	cable			

12.

### **RESOURCES: Center for Autism Spectrum Disorders (CASD)**

Financial Resources	FY2023	FY2022	FY2021**	
Revenues				
State Appropriations				
Grants & Contracts	362,500	185,502	161,500	
*grant through TAP of IL				
Fundraising	\$1000		1,475	
Total Revenues	362,500	185,502	162,975	
**efforts toward		·		
Expenditures*	Anticipated			
Salaries & Wages	161,442.53	82,478	65,226	
Fringe Benefits	43,545.57	21,276	18,789	
Equipment	0	0	12,459	
Supplies	10.984.65	5,130	4,355	
Contractual & Subawards	58,365	1,000	841	
Consultants (Prof. Services)	36,000	28,500	20,100	
Training & Education	2,645	2,900		
Other or Misc. Costs	0	82,478		
Indirect Costs	31,103.50	43,896.95	32,757	
Telecommunications	311.84	206.36	156	
Total Expenditures	344,398.09	178,463.77	154,692	
Revenue Minus Expenditures	N/A	7,036.23	8,283	
·	*We don't receive revenue			
Percentage of grant spent:	95.01% (must spend at least 90%)			

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

<sup>\*\*</sup>the CASD became an IBHE-recognized center with permanent status in July, 2021

Staffing (Full Time Equivalent)	FY2023	FY2022	FY 2021
Faculty Employee (E)	E 25% E 75% E 25% E .80% E 50%	E 25% E 2.5% E 20% E 15% E 25%	.72
Staff Contractor (C) Graduate Assistants (GA)	C 50% C per diem C per diem 12* GAs at 50% (6 per semester) 1* GAs at 25%	C 75% C per diem C per diem 6 GAs at 25%	0
*1 graduated in Dec. 2022			
Total Staffing	3 Faculty Employees 4 Staff Contractors 12 different GAs (due to graduating) (6) Graduate Assistants Positions	6 Faculty Employees 3 Staff Contractors 6 Staff Graduate Assistants	.72

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

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

1.	Reporting Institution	Carbondale
2.	Center/Institute	Center for English as a Second Language (CESL)
_		
3.	Date	January 16, 2023
4.	Director	William Hellriegel
	4.1 Telephone	618-453-6538
	4.2 E-mail	william.hellriegel@siu.edu
5.	Year Established	1966
6.	Illinois State Statute	
0.	(if pertinent)	NA
7.	Reporting Unit	(College of Liberal Arts)
8.	Tuno	Activity
ο.	Туре	Activity (check all that apply)
	Instructional	X
	Research	
	Public Service	

<sup>\*</sup> 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

CESL offers intensive English instruction to adults with a focus on preparation for success in university degree programs, principally at SIU. CESL is self-supporting and, in addition to classes, provides social-cultural activities, student advising, and specially designed programs for foreign partner institutions and governments that focus on English language teacher training, community engagement, and U.S. culture immersion.

#### 9.2 Mission

The Center for English as a Second Language (CESL) serves international students enrolled in CESL or in Southern Illinois University. Our primary mission is to provide the highest quality English language program and curriculum, delivered by professionals in the field of ESL; thereby also increasing the number of students who end up pursuing degrees at SIU. Traditionally, 80% of CESL students who finish our program move on to SIU degree programs; however, that rate is now less, and there is greater focus on English language teacher training, community engagement, and U.S. culture immersion.

#### 9.3 Objectives

- \* Provide high quality English instruction for students to meet educational, professional, and/or personal goals.
- \* Foster global citizenship by helping students acquire a better understanding of both U.S. academic and social culture as well as their own and other cultures.
- \* Maintain extensive student services.
- \* Provide effective teacher training and mentoring of CESL teaching assistants.
- \* Encourage faculty and staff professional development in TESOL and in related fields in order to contribute to and further knowledge about the field.
- \* Provide advanced linguistic, cultural and pedagogical training for international graduate assistants.
- \* Promote international awareness within the SIU community and the region.
- \* Advance the SIU reputation as an international and multicultural community.
- \* Establish and maintain relationships abroad in order to promote CESL and SIU internationally.

#### 10. Advisory Board

#### 10.1 Advisory Board - Membership

CESL Advisory Board. Current membership includes: William Hellriegel, CESL Director; Lilia Angel-Post, CESL Assistant Director; Kathryn Carpenter, CESL NTT Instructor (Senior Lecturer); Colin Robinson, CESL NTT Instructor (Associate Professor of Practice); Stacie Lawley, CESL NTT Instructor (Senior Lecturer), Geoffrey Young, CESL NTT Instructor (Assistant Lecturer), and Rebecca Sullivan, CESL NTT Instructor (Assistant Lecturer).

10.2 Number of Meetings (In This Year) 4

#### 11. Annual Performance

#### 11.1 Performance Measures \*

Measure – Strategic Goals for 2022-23		Target for Year	Results in Year
1.	Complete and Implement all the	Gain CEA	^ CESL Director, CESL
	measures we indicated and promised	approval and	Assistant Director, and CESL
	in our CEA (the Commission on	also the right to	Accountant completed and
	English Language Program	continue	submitted on June 1, 2023
	Accreditation) 5-year Interim Report.	membership and	the supporting data to
	ACCOMPLISHED.	the	complete work on CEA 5-year
		advertisement as	Interim Report.
		such to actual	^ We also decided to pursue
		and potential	CEA 10-year reaccreditation.
		institutional	
		partners.	
		ACCOMPLISHED.	
2.	Grow all existing relationships and	Develop	Reitaku University and Kyoto
	realize new possible relationships so	relationships and	University of Foreign Studies:
	that we receive all possible special	enrollments with	approximately 10 student
	programs, maximize number of	the specific	terms per year in 8-week IEP
	individual students possible from	institutional	(\$20,000). ACCOMPLISHED,
	these relationships, and thereby	partners	and actually exceeded the
	greatly enhance our revenues.	indicated here.	target amount by about
	PARTLY ACCOMPLISHED.		\$15,000 as of June 30, 2023.
		The goal is for	
		each of the	Laspau and IIE: continue with
		above	at least the current 15
		programs to be	students per year in 8-week
		realized or	IEP (\$75,000).

Measure – Strategic Goals for 2022-23	Target for Year	Results in Year
	Target for Year maintained in as timely a fashion as possible, with as many programs as possible repeating over time regularly and for an indefinite number of years.  Try to schedule special programs we run so that we can offer them with our current staffing or with additional staffing only if that is warranted by the amount of additional income so generated and that would still help us close our budgetary gap (see below).	Results in Year  ACCOMPLISHED THIS, and actually exceeding this by about \$55,000, as of June 30, 2023.  Tokushima University: 60 online in 8-week IEP (2 programs per year) (\$36,000). NOT ACCOMPLISHED, with only about \$16,000 in income. Also, Tokushima University students have resumed studying in person at CESL but in smaller numbers, yielding a projected amount of only about \$10-12,000 for FY24.  Soka University: 20 students per year onsite in U.S. Culture Immersion Program (\$32,500). ACCOMPLISHED.  Kyoto University of Foreign Studies: 30 students per year for 3-week onsite program (\$36,000). ACCOMPLISHED, but with \$18,000 in on-site income and \$21,000 in online income projected in FY24.  Online teacher training program for Centro Cultural Nicaraguense Norteamericano of Nicaragua: 25 students for English language teacher training in first year (2022, \$63,180). NOT ACCOMPLISHED, earning only about \$16,000, as this program has turned out to

Measure – Strategic Goals for 2022-23	Target for Year	Results in Year
		indirect and fringe benefit
		amounts taken out of what
		the funding agency sends.
		Moreover, we will probably
		not repeat this program,
		for the same reason.
		Deliver as many as 5
		programs for intensive English
		and/or teacher training, all
		through Fulbright Colombia
		for up \$95,000. NOT
		ACCOMPLISHED IN FY23, as
		we earned only about
		\$20,000 in FY23; however,
		we already know we will
		earn at least \$52,000 in
		FY24 and possibly up to
		\$92,000.
		Total potential income of
		\$357,680 that CESL keeps
		from group programs and
		individuals sent by CESL's
		institutional partners (and
		about \$432,500 total
		including self-sponsored
		individual students). NOT
		ACCOMPLISHED, as the
		total for the above items is
		only about \$267,500 for
		FY23, and \$365,000
		including self-sponsored
		individual students. We
		expect to earn about
		\$470,000 in 2023-24 from
		both the same programs
		and from self-sponsored
		individual students,
		combined.
		The CESL Director is
		responsible for
		development and
		development and

Mea	sure – Strategic Goals for 2022-23	Target for Year	Results in Year
			maintenance of the relationships required to realize the above possibilities, as well as design and submission of proposals for the programs indicated. The CESL Assistant Director has primary responsibility for implementation of the above-mentioned programs.
3.	Discontinue admission of additional individual enrollments in classes and levels with generally fewer than 5 students minimum each term (FE1-GE2), so as not to disrupt CESL's ability to serve other levels and special group students properly. Additional individual enrollments may, based on recent experience, include up to 10 FTEs per term total in the remaining five levels (AE1-GSE) and 50 per calendar year but with CESL presumably keeping an average of \$1585 per student (average of \$1260 (with CESL discount) and \$1910 (without discount)) for a total of \$79,250. PARTLY ACCOMPLISHED	Implement successfully the specific measurements indicated in order to bring about the desired results.	In support of this policy change, we implemented these measures: application fee raised to \$250, continued use of \$1000 deposit, and local, non-F1 students told no classes or levels available when there are fewer than 5 students for a given class/level, but we have made the application fee only \$160, \$110 of which is applied to the CESL technology and activity fees for students that actually end up studying with us; the \$160 is forfeited by those applicants who do not end up studying at CESL, thus discouraging applicants who are not serious. MOSTLY ACCOMPLISHED.
4.	Adjust staffing, ongoing and as necessary, for optimal efficiency.	Keep current staffing at same level in both the admin and faculty areas, but adjust as warranted. Maintain staffing with the	^ Current staffing is ideal for maintenance of minimal excellent functioning of the center. It allows for completion of all necessary administrative tasks, for both maintenance and growth, as well as for instruction at all curricular levels that are

Measure – Strategic Goals for 2022-23	Target for Year	Results in Year
	following	operating simultaneously in
	assigned tasks	any term. Moreover, the
	and other	quality of instruction is
	considerations in	maximized by having as much
	mind.	of it as possible done by non-
	ACCOMPLISHED.	tenure track (NTT) faculty,
		with teaching assistants
		employed only as necessary
		to fill gaps still existing when
		all NTT assignments have
		been made. ACCOMPLISHED.
		^ Changes to staffing
		in response to changes in
		enrollment and center goals
		are decided approximately 6
		months in advance in each
		case and then implemented
		2-3 months in advance of
		time when new staffing level
		is to be required.
		^ Appropriate staffing
		level at a given time is
		determined by the amount
		and kinds of staffing required
		to deliver CESL's standing
		programs (8-week Intensive
		English Program and
		Community Engagement
		Program) along with special
		programs that are worth
		running in terms of cost-
		benefit analysis with
		maintenance of highest levels
		of timeliness and quality,
		while at the same time
		avoiding maintenance of staff
		in excess of what is required.
		ACCOMPLISHED.
		^ Current appropriate
		staffing, assuming roughly
		215 student-terms per year
		(\$432,500 in total income
		that CESL keeps, as indicated
		above), is five full-time non-
		tenure track faculty, one 50%-
		effort teaching assistant,
		three full-time administrative

Measure – Strategic Goals for 2022-23	Target for Year	Results in Year
		staff, and one 50%
		administrative graduate
		assistant. ACCOMPLISHED IN
		THE SENSE THAT STAFFING
		LEVEL WAS ADEQUATE. As
		mentioned above, income for
		FY23 was only about
		\$365,000 (instead of
		\$432,500), and, is expected to
		be about \$470,000 in FY24.
		However, due to the larger
		than expected number of
		discrete programs offered,
		staffing has needed to be
		increased by one 50% TA and
		one 25% TA – an increase of
		about \$24,750 in cost per
		year. That, with faculty raises
		and also greater NTT
		participation needed during
		the summer intersession, will
		increase CESL's staffing cost
		for FY24 to \$507,000 (from a
		projected \$443,000 for FY23).
		Overall, including all revenues
		and expenses, in FY23, CESL
		had a loss of \$141,000
		(\$506,000-\$365,000), and in
		FY24, there is again a
		projected deficit of \$93,000
		(\$563,000-\$470,000).
		^ CESL's
		administrative graduate
		assistant (.50 FTE) will handle
		both individual inquiries and
		individual applications
		(should be greatly reduced
		because of new fee plan for
		individual enrollments,
		mentioned above) and
		student activities; and .25 FTE
		new faculty release time for 2
		terms of the academic year
		for social media
		work. ACCOMPLISHED first
		(with change of assignment
		for student activities (see
		for student activities (see

Measure – Strategic Goals for 2022-23		Target for Year	Results in Year		
	Strategic Goals for 2022 23	Target for Year	below) but not second. Faculty release time for social media work has not been assessed as affordable or as an effective use of available effort given the need for CEA accreditation work, mentioned previously, which said faculty has now been assigned to do. Despite our extreme exposure through Facebook and Instagram between 2019 and 2021 (4,000,000+ screen views), we found that it did not generate enrollments; whereas personal connections, word of mouth, excellent service, and extreme cultivation of relationships with partners did. Also, going forward, instead of the administrative graduate assistant, CESL will have an extra help person work at 25% FTE effort to plan and run CESL's student activities.		
5.	Maintain competitive pricing for CESL's programs and services and continue to reduce overall costs as much as possible while still delivering excellent services to students and groups. ACCOMPLISHED.	Find exact balance of attractive and competitive pricing with a pricing level necessary to generate maximum possible income for operation. Experience this year supported our belief that our pricing is exactly right. ACCOMPLISHED.	^ We now offer a tuition rate of \$1800 for full-time inperson study in CESL's 8-week Intensive English Program. We have found that this pricing rate, as well as prorated versions of it for CESL's special programs, gets a very positive response from CESL's partner institutions in general. Moreover, this price point ranks CESL within the lowest priced quadrant of U.Sbased intensive English programs, and it also allows CESL to minimize its annual loss. ACCOMPLISHED.  ^ To complement our regular pricing as discussed		

Measure – Strategic Goals for 2022-23	Target for Year	Results in Year
	<u> </u>	immediately above and to
		address the characteristics of
		the market for our services in
		middle-income, primarily
		Latin American, countries, we
		offer individual students from
		those markets a 50% tuition
		discount resulting in tuition of
		\$1150/full-time study in our
		8-week Intensive English
		Program, which we have
		found is an affordable price
		for students from these
		markets who can pay
		anything at all. We make up
		for this low tuition rate with
		large student volume,
		extremely efficient
		scheduling, and large class
		sizes. ACCOMPLISHED.
		^ We will keep CESL's
		overall costs as low as
		possible by keeping staffing at
		the minimal levels indicated
		above, by making commodity
		and contractual (copy
		machines, etc.) costs as
		minimal as possible, and by
		minimizing recruitment travel
		to only those trips that are
		expected to pay off in new
		enrollments (Japan, NAFSA,
		UCIEP, BMI Colombia) –
		resulting in total annual costs
		of about approximately
		\$506,000 for 2022-23 and
		approximately \$563,000 for
		2023-24. If the \$436,930
		noted above is also earned
		and no new special programs
		are added, total annual loss
		will be approximately \$60,000
		for the current fiscal year and
		for the next. Since CESL's
		reserve balance at the end of
		FY22 was approximately
		\$650,000, this means that

Measure – Strategic Goals for 2022-23	Target for Year	Results in Year	
		CESL can sustain such a loss	
		for many years until it will be	
		able to recruit enough	
		additional students and	
		groups to close the gap and	
		resume operating in the	
		black. NOT ACCOMPLISHED.	
		As mentioned above, CESL	
		had a loss of \$141,000 in FY23	
		and expects to again have a	
		loss of \$90,000 in FY24, rather	
		than the \$60,000 loss	
		originally projected for both	
		years. CESL's reserve balance	
		at the end of FY23 was about	
		\$428,000, and it is expected	
		that it will be \$338,000 at the	
		end of FY24.	

<sup>\*</sup> 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)

CESL's four major accomplishments in 2022-23 were the following:

- \*\* We rationalized our tuition rates, finding an optimal balance between competitive pricing and maximum possible income given severe market conditions.
- \*\* We regularized our work with both the U.S. Department of State in Managua, Nicaragua, and we greatly expanded our work with Fulbright Colombia, now having done and also having the in the pipeline a variety of programs for different audiences and projected to produce net income for CESL of more than \$100,000 per year.
- \*\* We greatly increased the number of Fulbright scholars studying with us in their Long-Term English Program, continuing to receive students sent by the Institute of International Education (IIE) and by Laspau. In FY24, Laspau has gone out of existence, but we expect to continue receiving students from IIE and also from our new partner, Amideast. Projected net income for CESL will be almost \$100,000 per year for FY24 and also for future years.
- \*\* I note also that in the budget information provided, CESL incurred a loss in FY 2023, due largely to the lingering effects of the COVID pandemic, from which the market is still recovering, from increasingly severe market conditions that include price competition from markets like the Philippines and South Africa, and from an overall high level of competition from an increasing number of markets. Those markets now include the United Kingdom, Ireland, Malta, the Philippines, Malaysia, Singapore, South Africa, Australia, and New Zealand, as well as growing English-medium educational enterprises in countries like Germany and China. CESL is working to remain competitive by continuing to deliver excellent service and competitive prices, which, however, means the imposition of a difficult budget environment on CESL, with rising costs but little pricing leverage.

\*\* I note finally that CESL has maintained its high level of service throughout all periods. Given that the Southern Illinois area is not as well-known as some other parts of the U.S, we believe we have to try to have CESL stand out in other ways. Some things we emphasize to potential students and institutional partners is that the Carbondale area has a pleasant climate, abundant and close natural settings, relative safety, a low cost of living, and a friendly community. Adding to these things our excellent and prompt service, along with our aggressive pricing, CESL is a compelling option.

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

CESL's traditional and fundamental function has been to recruit tertiary level students who matriculate to SIU for full-time degree study and then succeed is central to the University's mission to internationalize and to attract as many students as possible from diverse backgrounds. Although, as mentioned, these students have decreased as a percentage of our overall enrollments in recent years, we hope they will increase again, and we are always ready to accept such students in the largest numbers possible. Collaboration with the SIUC Center for International Education will be key going forward.

### 11.4 Evidence of Support for Center/Institute Objectives

By employing teaching assistants, CESL supports the SIUC School of Languages and Linguistics' efforts to give their graduate students teaching experience under the guidance of experienced CESL instructors. It has likewise also supported the Department of Curriculum and Instruction in the College of Education and Human Services. Although the number of teaching assistants employed has decreased in recent years, they always remain an option. CESL currently employs two 50%-effort and one 25%-effort SIUC graduate students.

#### 11.5 Evidence of Organizational Effectiveness

We continue to maintain a rationalized CESL staff and faculty structure in order to be able to deliver valuable instruction as well as extracurricular experiences to students most efficiently and effectively, as indicated above. By retaining the most capable and energetic persons, this goal continues to be accomplished.

With the lean staff and faculty that we have, we have been able to serve approximately 300 separate individual students over the course of each of the past couple of years, with the different students studying for varying lengths of time; and we have done this with very positive student and institutional partner response, avoiding the commission of any significant errors. This says a lot about both the appropriateness of the size of our staff and faculty and the quality of our academic programming and associated support services.

12.	Institutional	l Assessment
ız.	IIISULULIONAI	I H336331116111

12.1	Date of Last Review	January 2023		
12.2	Decision at Last Review	X 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 English as a Second Language (CESL)

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State Appropriations					
Student Tuition and Fees	339,166	327,555	270,020	860,585	874,564
Grants & Contracts	15,898				
Investment Income	6,087	6,500	10,000	15,000	6,000
Miscellaneous	3,780**				
Total Revenues	364,931	334,055	280,020	875,585	880,564
Expenditures*					
Salaries and Wages	443,118	412,258	385,815	576,402	622,663
Insurance Contributions	9,394	11,000	9,000	15,000	20,000
Travel	10,864	15,000	19,000	16,000	39,000
Equipment	948	3,000	3,000	3,000	
Commodities	6,241	2,230	23,412	34,828	74,000
Contractual Services	19,499	16,875	30,605	53,336	95,000
Other	16,172	84,000	51,500	179,706	64,650
Total Expenditures	506,236	544,363	522,332	878,272	915,313
Revenue Minus Expenditures	(141,305)	(210,308)	(242,312)	(2,687)	(34,749)

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

<sup>\*\*</sup> Student activities fees minus expenditures for student activities.

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
Faculty	5	5	4	4	5
Staff	3	3	3	3	4
Total Staffing	8	8	7	7	9

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

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

1.	Reporting Institution	Southern Illinois University Carbondale
2.	Center/Institute	Center for Fisheries, Aquaculture, and Aquatic Sciences
3.	Date	February 27, 2024
4.	Director	James Garvey
	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. Туре		Activity
	Instructional Research	(check all that apply)  X  X
	Public Service	X

<sup>\*</sup> 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; previously Fisheries and Illinois Aquaculture Center), the oldest research center on the SIUC campus, was created as the Cooperative Fisheries Research Laboratory under SIUC President Delyte Morris 1950 and led by the first Director, Dr. William Lewis until 1983. The center comprises research facilities shared across colleges and departments including a 100-acre, 100-pond outdoor aquaculture facility near Touch of Nature, a 12-acre research lake, 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 undergraduate and graduate-level teaching responsibilities in the School of Biological Sciences, College of Agricultural, Physical, and Life Sciences and research appointments in the Vice Chancellor for Research's office. Courses include Fisheries Management, Aquaculture, Limnology, Marine Biology, Aquarium Science, Aquatic Toxicology, and Fish Genetics. 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 supporting > \$3 million of fish sales annually.

## 9.3 Objectives

- Perform high quality research funded with external grants.
- Publish research in high quality peer-reviewed journals.
- Train M.S. and Ph.D. graduate students. Student success is highest priority.
- Provide research opportunities for undergraduate students.
- Teach graduate and undergraduate courses in fisheries, aquaculture, aquatic toxicology, water science, 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.
- Conduct outreach to local schools and public about aquatic science.
- Provide service to Illinois' aquaculture industry.

#### 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 \*

Mea	sure	Target for Year	Results in Year
1.	External Grant Funding	\$1,000,000	\$ 2,103,899
2.	Peer-Reviewed Publications	15	14
3.	Graduate Students Enrolled	15	25
4.	Graduate Students Finishing Degrees	5	7
5.	Undergraduate Research Projects Supervised	5	10

<sup>\*</sup> 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)

External funding remains at sustained level, leading to 14 publications in the peer-reviewed literature.

Additional accomplishments include:

- SIU faculty oversaw the Student Subunit of the American Fisheries Society and the Saluki Reefers RSOs both very active student groups
- Opened a 2,000-gallon sturgeon "exhibit" in the Saluki Aquarium for student teaching and outreach
- Hosted several outreach activities to local schools
- Several CFAAS students received state and national awards for their research
- New trucks, boats, and aquaculture systems acquired with external funding
- Faculty served on several committees and directorial boards
- Working with local fish farm companies to bring infrastructure and training opportunities in aquaculture to southern Illinois

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

Consistent with the SIU Imagine 2030 Strategic Plan for SIUC "developing research and innovation", 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 is reaching out to Illinois' aquaculture industry, which ranges from small farm-pond operations to larger commercial facilities through industry brokerage and fish-health screening that make the industry more profitable. Most CFAAS students become employed with private industry, academia, or government agencies throughout the US and beyond.

#### 11.4 Evidence of Support for Center/Institute Objectives

- Obtained more than \$2.1 M in funding
- 14 peer-reviewed publications
- 25 graduate students enrolled
- 10 undergraduates engaged in funded research
- Teach graduate and undergraduate courses in fisheries, aquaculture, and related fields.
- CFAAS faculty continue to teach more than contractual teaching loads
- Provide service to Illinois' aquaculture industry generating more than \$3M in aquaculture economic sales and monitoring for diseases

## 11.5 Evidence of Organizational Effectiveness

The CFAAS continues to effectively exceed its mission goals annually. Faculty are productive bringing in \$420,000 in grant funding per FTE and generating about 5 publications per faculty member. External funding levels are increasing. A greater proportion of external funding in 2023 was for permanent, durable equipment (e.g., vehicles, boats, and analytical equipment) for the Center and SIUC.

12.	Institut	ional Assessment		
	12.1	Date of Last Review	2018	
	12.2	Decision at Last Review	X Center/Institute in Good Standing Center/Institute Flagged for Priority Center/Institute Suspended	Review
	12.3	Explanation	(briefly provide any explanation necessary of the assessment or plans for pending program review	

**RESOURCES: Center for Fisheries, Aquaculture, and Aquatic Sciences** 

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues:					
State Appropriations	602,342.95	589,367.30	624,315.44	669,049.23	487,089.28
Local Accounts	310,122.42	225,613.74	240,726.68	205,305.70	165,937.34
Grants & Contracts	2,103,899.89	3,555,184.88	1,728,382.86	934,260.83	987,539.83
Total Revenues	3,016,365.26	4,370,165.92	2,593,424.98	1,808,615.76	1,640,566.45
Expenditures:					
Salaries	1,585,196.83	1,622,411.67	1,366,664.98	1,360,971.03	1,068,267.32
Wages	27,599.01	20,172.47	28,034.49	18,247.26	11,192.74
Travel	89,877.16	83,777.73	52,951.44	77,649.98	70,547.58
Equipment	42,155.70	216,564.66	262,523.90	52,856.26	116,245.82
Commodities	454,775.08	507,957.26	256,673.65	226,724.25	272,155.85
Contractual Services	1,017,068.18	1,315,935.31	786,173.68	469,447.55	89,874.53
Op/Auto	56,587.39	69,368.86	51,668.88	35,350.21	34,773.51
Telephone	4,676.97	5,719.58	4,000.90	5,913.79	5,796.77
Fringe Benefits	244,402.09	228,935.51	152,743.18	166,986.10	150,261.94
Indirect	356,802.42	305,445.38	209,106.32	176,833.95	149,407.27
Other	40,188.68	90,180.68	108,660.76	19,446.99	15,988.32
Total Expenditures	3,919,329.51	4,466,469.11	3,279,202.18	2,610,427.37	1,984,511.65
Revenue Minus Expenditures	(902,964.25)	(96,303.19)	(685,777.20)	(801,811.61)	(343,945.20)

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

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
Faculty	5	5	5	5	4
Staff	27.5	28.5	31.5	37	45.1
Students	9	6	11	4	4
Graduate Assistants	13.75	13	11	10.5	8
Total Staffing	55.25	52.5	58.5	56.5	61.1

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022- June 30, 2023

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

1.	Reporting Institution	Southern Illinois University School of Medicine
2.	Center/Institute	Center for Rural Health and Social Service Development
3.	Date	March 1, 2024
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
	(ii periment)	
7.	Reporting Unit	SIU SOM, Office of External Relations
8.	Type	Activity
		(check all that apply)
	Instructional	X
	Research	X
	Public Service	X

<sup>\*</sup> 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

Through a highly successful track record of both external funding and impact of projects, the *Center for Rural Health and Social Service Development* continues to position itself as a link between SIU School of Medicine resources and the central and southern Illinois region. The *CRHSSD* has a historical record of creating stable and sustained networks, programs, policies, and systems that demonstrate improvements in health outcomes and economic impact. As a result, the CRHSSD is able to launch new initiatives quickly, scale rapidly, and function with stability and sustainability. The *CRHSSD*'s highly developed operational framework, successful grant management experience, and rural expertise, provides a structural framework that is beneficial for the SIU System, the SIU School of Medicine, and the communities served.

#### 9.2 Mission

The *CRHSSD's* mission is to strengthen rural health infrastructure and to promote opportunities for enhancing health primarily in rural communities. Primary activities of the CRHSSD are grant and project development; research and evaluation; training and workforce development; and community engagement and outreach.

The CRHSSD is committed to the understanding of the Social Determinants of Health and resulting barriers and vulnerabilities that impact rural communities. The CRHSSD is built on a foundation of Diversity, Equity, and Inclusion, and with the utilization of a cultural competency lens to guide efforts that improve community resiliency, health outcomes, and individual health and well-being.

#### 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 with in the SIU School of Medicine's 88 Illinois county service region, 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

University volunteers guide 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
- 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
- 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
- Adam Lach, CEO, 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)

The full group did not meet during this time. However, the Director and staff had individual meetings with Council Chair and various Council members.

#### 11. Annual Performance

## 11.1 Performance Measures \*

Mea	sure	Target for Year	Results in Year
1.	External Funding Generated	\$500,00	\$2,372,156
2.	Grant Applications (New/Non-Compete	3	6
	Cont.)	Projects/\$250,000	
3.	Publications and Presentations	5	242
			Presentations/Trainings
4.	Continuing Education Programs	5	Presentations/Trainings 10
4. 5.	Continuing Education Programs Community Collaborations	5 75	
	3	5 75 10	10

Measure	Target for Year	Results in Year

<sup>\*</sup> 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)

## Program Title: Rural Health SUD Leadership Center

#### **Program Overview:**

The CRHSSD serves as one of five Substance Use Disorder Leadership Centers in Illinois and specializes in rural health.

#### **FY23 Accomplishments**

- SIU Leadership Center (RLC) staff participated (as facilitators or attendees) in the following SUD and behavioral health coalitions and criminal justice programs:
  - Southern Illinois Opioid Response Advisory Council
  - Southern Illinois ROSCs
  - Southern Illinois Rural Community Opioid Response Programs
  - County SUD/Opioid Coalitions
  - TASC deflection program (Central Illinois and Southern Illinois "Tri-County" initiatives)
- 2. Developed, disseminated, and produced a document with the results of a survey to determine availability and affordability of Naloxone at Illinois pharmacies.
- 3. Facilitated provision of psychiatric consultation to Hardin County General Hospital's (HCGH) MAR program. Ayame Takahashi, an SIU psychiatrist who is board certification in Addiction Medicine through the American Board of Addiction Medicine, joins HCGH's interdisciplinary team meetings to consult with providers on patient needs.
- 4. The SIU RLC staff assisted with development of a CRSS training and apprenticeship program for southern and central Illinois. Funding was used to 1) revise the CRSS curricula, 2) coordinate apprenticeship and training sites, 3) support 10 students with monthly stipends in southern and central Illinois, and 4) continue working with IDOC to teach the CRSS class at the Murphysboro Life Skills Re-Entry Center and the Kewanee Life Skills Re-Entry Center. Nine of the 10 students completed the coursework, with one discontinuing the program in March 2023. All students received monthly stipends after successful completion of coursework.
- 5. Take Action Today (TAT) and the Second Judicial Circuit Court are continuing their programs funded by this grant. With SOR II funding, TAT is expanding their Peer Recovery Support Specialist training program, developing Peer Recovery Communities, and overseeing the delivery of peer recovery support services to participants in the Jefferson County Drug Court Program. The Second Judicial Circuit Court has focused on enhancing drug court services for Jefferson and White Counties, including developing a peer recovery support system and hiring peer recovery support specialists and drug court counselors. They have expanded counseling hours for drug court participants, paid travel costs for clients going to therapy appointments, provided emergency

needs to clients, paid fees for psychological/psychiatric testing/assessment, and have expanded drug testing personnel hours.

## <u>Program Title: Rural Opioid Prescriber Training Program</u>

## **Program Overview:**

Through the Rural Opioid Prescriber Training Program, trainings are developed for providers who prescribe opioids. Webinar topics vary, and all address opioid prescribing best practices. CMEs are provided through SIU School of Medicine. An opioid prescribing best practices webpage is also maintained by Center for Rural Health staff.

### **FY23 Accomplishments:**

An updated version of the Best Practices in Opioid Prescribing webpage was developed and published during FY23, <a href="https://www.siumed.edu/center-rural-health-and-social-service-development/rural-opioid-prescribing-best-practices">https://www.siumed.edu/center-rural-health-and-social-service-development/rural-opioid-prescribing-best-practices</a>. The purpose of the webpage is to provide information on opioid-related resources and prescribing best practices, and to connect prescribers to the FY22 Rural Opioid Prescriber Training Program courses.

Staff continues to assist with coordination and recruitment for the SIU School of Medicine Opioid ECHO (Extension for Community Healthcare Outcomes) for rural healthcare providers. The ECHO program includes a series of one-hour training sessions comprised of a patient story and didactic presentation related to opioid prescribing.

The ECHO topics presented in FY23 were as follows:

- 1. Co-Occurring Anxiety Disorders and Substance Use
- 2. Co-Occurring Trauma/PTSD and Substance Use
- 3. Co-Occurring Psychosis and Substance Use
- 4. Co-Occurring Personality Disorder and Substance Use
- 5. Co-Occurring Depression and Substance Use
- 6. Co-Occurring Bipolar Disorder and Substance Use
- 7. Passionate Tapering of Opiates
- 8. Pain Alternative to Opioids
- 9. Foods and Nutrition Related to Opioids
- 10. Communicate with Patients about Opioids

### Program Title: Arrowleaf, Inc. RCORP

## **Program Overview**

The RCORP program is a multi-year initiative that addresses barriers to treatment for substance use disorder, including opioid use disorder. It works toward the HHS goal of ending the opioid epidemic. Arrowleaf, Inc. RCORP's goal is to addresses barriers to treatment for substance use in Hardin and Pope Counties.

#### **FY23 Accomplishments**

The CRHSSD staff completed an evaluation of the Arrowleaf, Inc. RCORP program's opioid prevention campaign, assisted with establishment of a Medication Assisted Recovery program at Hardin County General Hospital, attended monthly Advisory

Board meetings, and provided a variety of additional SUD resources, including webinars and guest lectures, when requested.

## **Program Title: MAR Mobile Health Unit**

### **Program Overview:**

DHS contacted the CRSSD to explore implementation of a MAR mobile health unit is southern Illinois which would be operated out of the CRHSSD. Funding supported staff to look into the feasibility of such a program. The CRHSSD was not able to purse implementation of a MAR mobile health unit because of the requirements to partner with a SUPR-licensed opioid treatment program (OTP). A SUPR-licensed OTP provides three forms of treatment for opioid use disorder, one of which is methadone.

## **Program Title: MAR Now**

### **Program Overview:**

Family Guidance Centers, Inc. (FGC), the Illinois Department of Human Services, Division of Substance Use Prevention and Recovery (SUPR) and the Illinois Helpline for Opioids and Other Substances (HelpLine), developed MAR NOW to connect individuals with OUD to medication-assisted recovery (MAR). Callers to the HelpLine have the opportunity for same day or next day medication access. FGC serve as the model's "hub," receiving calls from the HelpLine, providing interim coverage on medications for the treatment of opioid use disorder and connecting callers with OUD to a "spoke" site for ongoing care. The CRHSSD serves as a spoke site where staff connect callers referred by FGC case managers to providers who are willing to treat a person with OUD.

## **FY23 Accomplishments:**

The CRHSSD staff placed 61 callers with OUD into ongoing care throughout Illinois.

## **Program Title: Farm Family Resource Initiative**

## **Program Overview:**

The Southern Illinois University School of Medicine Center for Rural Health and Social Service Development (CRHSSD) is leading the effort to build a network of support and resources for Illinois farm families. The purpose of the initiative is to provide a range of resources including a helpline to assist with farmer and farm-related issues that include mental and physical health needs. Additionally, the initiative offers ongoing outreach, education and training to rural clients and partners working to improve the health and safety of farm families.

In 2021, the Illinois General Assembly and the Illinois Department of Agriculture expanded this support statewide. The Farm Family Resource Initiative (FFRI) has grown exponentially in the past year, to include a 24/7 helpline to aid farmers with work-related issues, and outreach, education and training for rural clients and partners, as it strives to improve the mental and physical health and safety of our farm families

## **FY23 Accomplishments:**

The FFRI developed and put into operation a text line **1-833-FARMSOS** and an email line **FarmFamilyResourceHelpline@mhsil.com**. During FY23 the helpline has received 56 calls/text/emails by farm families seeking services.

As a part of the FFRI Initiative, farm families are able to request and receive up to 6 Telehealth sessions with a SOM mental health professional. During FY23, There have been 22 requests for Telehealth counseling, 27 telehealth sessions provided, resulting in 20 telehealth clients.

FFRI staff have provided 39 presentations to agriculture professionals, leaders, and members of the community with over 1, 798 people reached. In addition, FFRI staff have provided 4236 marketing/education outreach activities and have reached over 2200 people through participation in various community events.

The FFRI state-wide Advisory County meets on a monthly basis alternating between virtual and in-person meetings.

# <u>Program Title: 814 CRSS (Certified Recovery Support Specialist) Success</u> <u>Program</u>

## **Program Overview:**

The CRSS Success program provides recovery support training, supervised practical experience in the form of an internship, and wrap-around supports for individuals with lived expertise of mental health, substance use, or co-occurring mental health and substance use recovery.

#### **FY23 Accomplishments:**

Developed a curriculum for training students toward a CRSS role. Curriculum topics include:

- 1. Orientation
- 2. Introduction to CRSS Training Program
- 3. Continuing Introduction to CRSS Training Program
- 4. Trauma-Informed Care
- 5. Strengths-Based Recovery
- 6. Cultural Competence & Cultural Humility
- 7. Introduction to Communication & Listening
- 8. Communication & Listening pt. 2
- 9. Recovery & Recovery Capital
- 10. Mentoring
- 11. Motivational Interviewing
- 12. WRAP- Wellness Recovery Action Plan
- 13. Advocacy
- 14. Problem Solving & Conflict Resolution
- 15. Resiliency
- 16. Appropriate Self-Disclosure

- 17. Ethics, Ethical Considerations & Professional Responsibilities: Pt 1
- 18. Ethics & Professional Responsibilities
- 19. Building on First Semester Foundations
- 20. A Brief History of Peer Recovery Movements
- 21. A Brief History of Substance Use Recovery
- 22. Minoritized People and Mental Health Considerations
- 23. Engaging Youth in Recovery
- 24. Engaging Families in Recovery Positive Relationships & Group Facilitation
- 25. Recognizing & Responding to Substance Use & Mental Health Crisis
- 26. Recognizing & Responding to Potential Harm
- 27. Strengths-based & Ethical Documentation
- 28. Expunge & Seal Criminal Records
- 29. Treatment Delivery Methods & Community Resources
- 30. Many Paths to Recovery with Guest Facilitator Vesper Moore
- 31. Strengths-based Professional Demeaner
- 32. Recognizing & Responding to Substance Use & Mental Health Crisis
- 33. Treatment Delivery Methods & Community Resources
- 34. Strengths-based Professional Demeaner

13 students enrolled in the Fall 2022 into the CRSS Success Program. The virtual training was delivered on Saturdays to all students. Two instructors and two support staff taught the courses, as above. In addition, training was delivered via ECHO (Enhancement of Community Health Care Outcomes) on Wednesdays for one hour to enhance the learning experience. This virtual hub and spoke model embraces "all teach, all learn" models. The ECHO training is recorded allowing students to review the presentations and discussions.

4 internship partner sites were established to meet the student obligation for 300 work peer recovery experience hours.

Support staff was hired to work with students resolving barriers to their success.

<u>Program Title: Behavioral Health Workforce Education and Training</u>
<u>Program (BHWET) Program for Paraprofessionals – CRSS (Certified Recovery Support Specialist) Pipeline Program</u>

#### **Program Overview:**

The purpose of the BHWET Program for Paraprofessionals is to develop and expand community-based experiential training such as field placements and internships to increase the supply of students preparing to become peer support specialists and other behavioral health-related paraprofessionals while also improving distribution of a quality behavioral health workforce. A special focus is placed on the knowledge and understanding of the specific concerns of children, adolescents, and transitional-aged youth in high need and high demand areas at risk for behavioral health disorders.

The BHWET Program for Paraprofessionals emphasizes establishing relationships with community-based partners (e.g., emergency departments, faith-based organizations, first responders, judicial systems, health centers, social services, community policing

organizations, recovery community organizations or other peer-based recovery support organizations), to increase access to behavioral health services to populations across the lifespan. The program will expand and improve access to quality treatment and foster an integrated approach to address behavioral health prevention, treatment, and recovery services, including but not limited to Opioid Use Disorder (OUD) and other substance use disorder (SUD), in high need and high demand areas. The program also emphasizes developmental opportunities and educational support in interdisciplinary collaboration by utilizing team-based care in integrated, interprofessional behavioral health and primary care settings and recruiting a workforce interested in serving high need and high demand areas.

### **FY23 Accomplishments:**

Developed a curriculum for training students toward a CRSS role. See above for Curriculum topics

32 students enrolled in the Fall 2022 into the CRSS Pipeline Program. The virtual training was delivered on Saturdays to all students. Two instructors and two support staff taught the courses, as above. In addition, training was delivered via ECHO (Enhancement of Community Health Care Outcomes) on Wednesdays for one hour to enhance the learning experience. This virtual hub and spoke model embraces "all teach, all learn" models. The ECHO training is recorded allowing students to review the presentations and discussions.

Apprenticeship partnerships were being developed during FY23. Apprenticeship sights are partnerships between organization, Department of Labor, and Southern Illinois University.

Support staff was hired to work with students removing barriers for their success.

### **Program Title: MAR Stipend Program**

## **Program Overview:**

The state-wide MAR Stipend Program was designed to increase the number of practitioners providing Medication-Assisted Recovery (MAR) for people with Opioid Use Disorder (OUD).

#### FY23 Accomplishments:

In an effort to increase accessibility to MAR in Illinois, SIU developed and implemented the following strategies:

- Stipends for provided to providers who registered for their x-waiver, which
  refers to the Drug Addiction Treatment Act (DATA 2000) "waiver" legislation
  that authorized the outpatient use of buprenorphine for the treatment of
  opioid use disorder.
- Stipends were provided for providers who first prescribed and/or continued to prescribe buprenorphine for OUD between August 2022 May 2023
- Stipends were provided to providers who presented an ECHO case, as well as providers who participated in Opioid ECHO sessions
- SIU hosted one ask-the-expert session to increase knowledge to healthcare organizations interested in implementing medication-assisted-recovery services

 Stipends were provided to healthcare organizations that submitted a MAR implementation plan and began providing prescribing buprenorphine for OUD between August 2022 – May 2023

## **Program Title: Prescription Monitoring Program**

## **Project Overview:**

The CRHSSD coordinates the Illinois Delta Counties Project Prescription Monitoring Program for the IDHS PMP. The project involves coordinating PMP activities with 15 Delta Region health departments. Activities include bi-monthly Narcan distributions, provider outreach to educate on dangers of overprescribing opioids, advertising the PMPNow, and harm reduction activities.

### **FY23 Accomplishments:**

## **Project Coordination:**

Throughout the past year, the Center for Rural Health and Social Service Development (CRHSSD) has played a pivotal role in coordinating efforts between local health departments and PMP staff. This coordination has involved collecting quarterly and yearly reports from local health departments, consolidating essential data, and submitting comprehensive reports to the PMP. Serving as a liaison between local health departments and the PMP, center has facilitated seamless communication and collaboration, ensuring that critical information is shared efficiently and enabling informed decision-making by conducting monthly meetings.

#### **Narcan Education Initiative:**

A cornerstone of the center's endeavors in the past year has been the Narcan education initiative. This comprehensive effort has involved educating friends, families of opioid users, and local businesses on the administration of Narcan, a life-saving medication for reversing opioid overdoses.

### **Opioid Overdose Responder Training Video:**

In the past year, the center has undertaken the scripting and directing of an Opioid Overdose Responder Training Video. This video resource serves as a crucial tool for training individuals on identifying opioid overdoses and administering Narcan promptly and effectively. Through visual media, the center has disseminated vital information, enhancing community readiness to address opioid emergencies and bolstering response capabilities. This video has been utilized for group trainings and is available to the public for viewing on YouTube.

#### **Proposal for Narcan Education in Local Businesses:**

As part of its proactive approach, the center has covered bottom 12 counties by doing road trips and proposed Narcan education initiatives tailored to local businesses. Recognizing the pivotal role of businesses in the community, visited and trained over 130 local businesses and gas stations, training included owner and staff members and focused on helping them to understand the urgency of the situation. By engaging businesses as partners in the fight against opioid abuse, the center has expanded its reach and effectiveness in safeguarding communities.

#### **Narcan Distribution:**

- Distributed Narcan to Perry County Health Department.
- Distributed Narcan to over 130 public facing businesses in the community.
- Distributed Narcan to Pinckneyville fire department.
- Met and distributed Narcan directly to people who use drugs.

#### **Common Goals Achieved:**

The Prescription Monitoring Project's initiatives over the past year have been aligned with several common goals in combating opioid abuse:

Early Intervention: Through coordinated meetings and proactive outreach efforts, the PMP has facilitated early intervention strategies, aiming to prevent opioid misuse from escalating into addiction or overdose.

Community Collaboration: By fostering collaboration among local health departments, PMP staff, and community stakeholders, the center has leveraged collective expertise and resources to address the multifaceted challenges of the opioid crisis effectively. Treatment Access: The center's initiatives have contributed to expanding access to evidence-based treatment options, supporting individuals grappling with opioid addiction on their path to recovery.

# <u>Program Title: Delta States Network Development Grant – CATCH onto Health Consortium</u>

#### **Program Overview:**

A school-based initiative serving the Illinois Delta Region. The population served with Delta States funds are children prekindergarten—12th grade in the Illinois Delta Region. Illinois Delta Region youth face worsened health outcomes due to poverty, infant mortality, low birth weight, and teen pregnancy than those in other parts of the state. They exhibit high rates of sadness, hopelessness, and bullying. Physical inactivity, poor eating habits, and obesity are also high among Illinois Delta Region youth. Furthermore, Illinois Delta Region adults exhibit higher rates of obesity, diabetes, smoking, and physical inactivity than their counterparts. Working with Illinois Delta youth can help break this multigenerational cycle.

The Illinois CATCH on to Health Consortium (ICHC) established and maintains itself as an active and functional consortium, despite the COVID-19 pandemic. The consortium was able to quickly adapt to the virtual world, be flexible, and meet schools where they were. ICHC implemented the CATCH curriculum, including vaping-prevention program CATCH My Breath. Furthermore, through the application of CDC's WSCC model, ICHC piloted implementation of Illinois social-emotional learning standards into pre-K–12th grade in its schools. The consortium also conducted Hidden in Plain Sight demonstrations in several settings such as teacher institute days, parent education nights, and community events. Also, in line with the WSCC model, ICHC implemented Mental Health First Aid to school administration, teachers, and staff, as well as community partners such as Boys and Girls Club. Overall, within this grant period, ICHC has worked on the goal of reducing the prevalence of chronic disease among schoolage children in the Illinois Delta Region.

ICHC is at an advantage to promote and educate various community partners, schools, and early childhood education sites. Training and professional development provided will have a lasting impact on the community and schools served. Through a policy, systems, and environment focus, it encouraged schools to look at wellness as a whole and as a cultural/environmental change to ensure behavior changes are made for a lifetime. Furthermore, the resources provided through the funding period sustain themselves through future use. The COVID-19 pandemic also expanded reach and access with the use of virtual technology. It allowed for work with other agencies, as both a resource and partnership, resulting in diverse relationships. Last, the goals of ICHC have been replicated on a larger community-based scale, taken on by local community coalitions as well as the Healthy Southern Illinois Delta Network as a whole, therefore, positioning the efforts and programming for greater sustainability and impact.

### **FY23 Accomplishments:**

Secured new 3-year funding (~\$850,000/year) from August 1, 2023 - July 31, 2026. Successfully piloted social-emotional learning (SEL) curriculum, Character Strong, region-wide and grade-level wide. Pilot provided good feedback and decision on SEL curriculum.

Trained over 50 school and community professionals to implement the vaping prevention curriculum, CATCH My Breath, in grades 5-12.

Professional Development Opportunities provide for Delta schools: Food Service training, physical education staff, school administrators on School Wellness Policy, Mental Health First Aid, and Hidden in Plain Sight.

## <u>Program Title: Drug Overdose Prevention Program (DOPP)</u>

Program Overview: Narcan training provided to area southern Illinois communities

**FY23 Accomplishments:** 8 trainings in various community and professional sectors including churches, schools, probation/judicial offices, and social service organizations

# <u>Program Title: Drug Endangered Children & Family Human Trafficking</u> (DEC) Training:

## **Program Overview:**

A community awareness training about the dangers that children face when they live in a home where drugs are being misused. Dangers involve prenatal, post-natal, short term and long-term issues. In addition, an introduction to the intersection of drug endangered children and familial human trafficking is introduced and discussed.

Statewide alliance involving various state level agencies to encourage community awareness and technical assistance on the topic of drug endangered children and human trafficking

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 Liesl Wingert (in partnership with the RCCU School

Resource Officer, Brad Ameter). The overall goal is to create active DEC alliances that involve multidisciplinary involvement in each Illinois county.

## **FY23 Accomplishments:**

First annual state DEC conference was held on May 2, 2023 with 126 people in attendance for a full day of training/speakers on the topics of drug endangered children, appropriate child and family therapies, current drug trends, and trafficking issues.

8 DEC/FHT trainings were conducted for communities and 2 were conducted at state-level conferences. Received the Illinois Principal's Association award for the development of a *Handle With Care* program (a trauma intervention program based on DEC work) for the RCCU1 school district.

## **Program Title: Upward Bound**

Guest speaker for Upward Bound students (high school students who will be first in their family to attend college)

#### **FY 23 Accomplishments:**

3 presentations to different groups of students on current drug trending, Narcan training, careers involving the treatment of substance use disorder/mental health, 73 students served

## **Program Title: Body Safety for Children**

#### **Program Overview:**

A simple, direct program for children K-8<sup>th</sup> grade on body safety/good touch-bad touch

#### **FY23 Accomplishments:**

1 private school presentation for K-8<sup>th</sup> grades, 123 children participated

## Program Title: Richland County Drug Coalition

**Program Overview:** Community drug coalition for Richland County involving members from all sectors of the community involved in the recovery process – sober living, medical, social service, law enforcement, and DCFS

#### **FY23 Accomplishments:**

1 community awareness event with speakers and resource tables, 58 people served

## <u>Program Title: CRHSSD Staff serving on various State and Regional</u> <u>Boards of Directors and Advisory Councils</u>

## FY23 Highlights/Accomplishments:

Illinois Rural Health Association Board of Directors

Dean's Advisory Council, SIUC College of Health and Human Sciences

MPH Advisory Council, SIUC College of Health and Human Sciences

PROWD Grant, SIU Core Team

Community Benefits Advisory Council, Southern Illinois Healthcare

Governance Team, Centerstone, Illinois Children's Healthcare Foundation Initiative

Healthy Southern Illinois Delta Network Leadership Team

SACIS/CAISA

Board of Directors, Take Action Today

Illinois Association of Problem-Solving Courts

Wabash Ministerial and Guidance Board

Birth to Five Action Council

Advisory Board Member, National Drug Endangered Children's Alliance

Illinois Alliance for Drug Endangered Children

Richland County Addiction Prevention Coalition

# 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 FY2023, 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 100 active community partnerships in the past year and received over \$2 million in extramural funding, filtering a large percentage 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.	Institut	ional Assessment			
	12.1	Date of Last Review		2019	
	12.2	Decision at Last Review	XX	Center/Institute in Good Standing Center/Institute Flagged for Priority Review Center/Institute Suspended	
	12.3	Explanation		N/A	

**RESOURCES: Center for Rural Health and Social Service Development** 

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State Appropriations	367,499	356,718	295,443	210,443	150,372
External Grants/Sub-	2,737.085	2,809,849	2,228,938	2,513,799	2,216,506
Awards					
Contractual/Income	77,188	88,000	137,132	1,537	30,342
Rural Health Initiative	0	120,000	135,501	161,600	161,600
Indirect/Overhead	155,049	52,000	97,575	75,848	43,590
Return					
Total Revenues	3,336,821	\$3,326,567	\$2,894,589	\$2,963,227	\$2,602,410
Expenditures*					
Salaries	590,690	543,358	384,122	456,835	606,031
Wages	8,734	2,063			
Fringe Benefits	168,718	104,287	14,850	56,154	117,111
Travel	13,649	10,909	1,386	29,300	20,293
Equipment	16,935	723	3,646	3,844	1,856
Commodities	93,373	33,625	31,663	31,803	23,590
Community/University	159,000	465,000	100,251	609,791	708,111
Program Grants					
Contractual – Other	629,196	35,640	324,000	430,000	139,331
Indirect to University	412,866	96,364	170,366	110,249	151,140
Total Expenditures	2,093,162	\$1,291,969	\$918,636	\$1,727,976	\$1,767,463
Revenue Minus Expenditures	1,243,659	\$2,034,598	\$1,975,953	\$1,235,251	\$834,947

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

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
Faculty	0.00	0.00	0.00	0.00	0.00
Staff	13.00	12.00	11.00	11.00	11.00
Student Worker	1.00	1.00	0.00	0.00	1.00
Extra Help	2.00	2.00	1.00	3.00	3.00
Graduate Assistants	3.00	2.00	3.00	2.00	5.00
Practicum/Intern Students	1.00	0.00	2.00	0.00	0.00
Total Staffing	20.00	17.00	16.00	16.00	20.00

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

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

1.	Reporting Institution	Southern Illinois University Carbondale
2.	Center/Institute	Cooperative Wildlife Research Laboratory
3.	Date	February 22, 2024
4.	Director	Mike Eichholz
	4.1 Telephone	618-453-6951
	4.2 E-mail	eichholz@siu.edu
5.	Year Established	1950
6.	Illinois State Statute (if pertinent)	N/A
	(ii pertinerit)	
7.	Reporting Unit	Vice Chancellor for Research
8.	Туре	Activity
		(check all that apply)
	Instructional	X
	Research	X
	Public Service	X

<sup>\*</sup> 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 CWRL consists of five full time Faculty members who also have appointments ranging from 25% - 51% in the College of Agriculture, Life, and Physical Sciences (CALPS). 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 ~25 active MS and PhD students at any point in time. The CWRL shares 2 full time office staff and 3 student workers with the Fisheries unit. 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.

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 researchers 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:

- 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.
- Establish functional leadership to lead the lab in establishing a national and international reputation.
- Increase diversity in the faculty and student body to more accurately represent the community we serve.
- Keep external grant funding at \$1.5M or higher; continue to train 25-30 students; publish at least 20 peer reviewed papers; graduate at least 5 students; supervise at least 5 undergraduate projects.

### 10. Advisory Board

10.1	Advisory	/ Board -	Mem	bership

N/A		

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

#### 11. Annual Performance

#### 11.1 Performance Measures \*

Mea	sure	Target for Year	Results in Year	
1.	External Grant Funding	\$1,000,000	811,938	
2.	Peer-Reviewed Publications	20	22	
3.	Graduate Students Enrolled	20	24	
4.	Graduate Students Finishing Degrees	5	4	
5.	Undergraduate Research Projects Supervised	5	4	

<sup>\*</sup> 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)

Additional accomplishments include:

- Clay Nielsen named *Alumni Master* in the College of Agricultural Sciences & Natural Resources at the University of Nebraska-Lincoln. Nine of these awards are given each year, 1 per college, from UNL with >200,000 living alumni to choose from.
- PhD student Alex Glass (advised by Mike Eichholz) 2022-2023 winner of the SIUC Richard and Donna Falvo Outstanding Dissertation Award.

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

Consistent with the SIU Imagine 2030 Strategic Plan for SIUC "developing research and innovation", the CWRL maintains a productive, high-quality research, training, and teaching program. 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. Locally, the CWRL 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 provides service at the state, regional, and national scale through the numerous committees in which the faculty serve including but not limited to the Illinois Invasive Species Council, the Illinois Habitat Fund Advisory Committee, the Upper Mississippi River Great Lakes Region Joint Venture Technical Committee, The Mississippi Flyway Council Technical Committee, The Bobwhite and Grassland Initiative Technical Committee, and The Wildlife Society College and University Education Working Group.

### 11.4 Evidence of Support for Center/Institute Objectives

While a dip in grantsmanship occurred in FY23, the CWRL continues to meet or nearly meet its annual objectives of, 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 within CALPS.

#### 11.5 Evidence of Organizational Effectiveness

The CWRL operated without a permanent Director from 2013 to January 2024. In addition, there continues to be a 2 vacant faculty lines within the Center. Despite these limitations, the CWRL continues to capture federal funding and funding from the state for wildlife research management/conservation and serves as one of the major training programs for graduate students and undergraduate researchers at SIU. Under new leadership, the CWRL is developing a new strategic plan to expand its role and level of collaboration by engaging with experts outside the traditional field of wildlife ecology to help develop a more sustainable approach to managing wildlife populations.

12.	Institut 12.1	ional Assessment Date of Last Review	2018
	12.2	Decision at Last Review	X 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: Cooperative Wildlife Research Laboratory**

## **FINANCIAL RESOURCES**

Revenues:	FY23	FY22	FY21	FY20	FY19
State Appropriations	364,450.29	366,956.06	363,651.60	306,060.55	355,414.84
Local Accounts	124,531.98	81,132.80	72,479.24	75,122.18	92,553.44
Grants & Contracts	811,937.97	2,207,757.75	1,040,160.63	125,628.49	222,593.61
Total Revenues	1,300,920.24	2,655,846.61	1,476,291.47	506,811.22	670,561.89
Expenditures:					
Salaries	1,104,415.64	924,958.75	874,442.35	878,357.32	850,688.42
Wages	19,371.19	23,276.89	24,116.20	20,257.97	30,205.12
Travel	33,161.09	17,895.52	9,471.32	35,677.52	35,541.92
Equipment	46,279.94	32,832.27	2,791.00	42,282.44	3,325.92
Commodities	424,679.62	241,710.73	153,118.03	122,109.71	188,961.46
Contractual Services	69,225.64	56,638.31	58,627.86	74,855.92	59,597.45
Op/Auto	121,599.66	60,113.04	44,441.48	93,490.48	75,883.80
Telephone	78,463.09	29,477.29	24,058.25	9,718.31	13,081.46
Fringe Benefits	82,317.31	27,110.32	22,188.11	28,990.02	23,274.49
Indirect	273,248.87	173,430.04	153,936.60	176,373.58	155,889.78
Other	22,503.87	956,266.46	3,737.88	574.00	1,000.00
Total Expenditures	2,275,301.52	2,547,719.31	1,370,929.08	1,482,687.27	1,437,449.82
Revenue Minus					
Expenditures	(974,381.28)	108,127.30	105,362.39	(975,876.05)	(766,887.93)

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

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
Faculty	5	5	5	5	5
Staff	68.5	46.5	39	58	71
Students	4	11	12	15	21
Graduate Assistants	11.75	10.5	10	10.5	8
Total Staffing	89.25	73	66	88.5	105

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022- June 30, 2023

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

1.	Reporting Institution	Southern Illinois University School of Medicine (SIUSoM)		
2.	Center/Institute	Dale and Deborah Smith Center for Alzheimer's Research & Treatment (Smith Alzheimer's Center)  Information for the Parkinson's Disease Center (PDC) is also included in this report		
3.	Date	02-27-2024		
4.	Director	Erin 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 (SIUSoM)		
8.	Туре	Activity		
	Instructional Research Public Service	(check all that apply)  X  X  X		

<sup>\*</sup> 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 Dale and Deborah Smith Center for Alzheimer's Research and Treatment (Smith Alzheimer's Center) is housed within the Department of Neurology, which is part of the Neuroscience Institute (NSI) at Southern Illinois University School of Medicine (SIUSoM). The Smith Alzheimer's Center was formerly known as the Center for Alzheimer's Disease and Related Disorders (CADRD).

The Smith Alzheimer's Center was established as a Regional Alzheimer's Disease Assistance Center by the State of Illinois, pursuant to Public Act 90-0404. In 1986. The Smith Alzheimer's Center is dedicated to assisting patients and families who may be affected by Alzheimer's disease and other forms of dementia. This is accomplished through:

- Patient care
- Education for medical professionals and community members
- Research
- 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. The PDC is also associated with the Neuroscience Institute (NSI) at SIUSoM and is incorporated into this report, where indicated.

#### 9.2 Mission

The mission of the Smith Alzheimer's Center is 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.

Our personalized approach involving patient care, education, research and service to the community leads to improved patient, family, and community outcomes. The Smith Alzheimer's Center has two dementia/Alzheimer's disease trained cognitive neurologists and two dementia/Alzheimer's disease focused nurse practitioners who operate under the guidance of our cognitive neurologist. The Smith Alzheimer's Center also works with nurses and clinical researchers with training specific to the needs of people with dementia and their caregivers. The Smith Alzheimer's Center also has a gerontologist and licensed counselor on staff.

The Smith Alzheimer's Center also has a team of bench and translational researchers lead by two internationally renowned and NIH-funded neuroscientist. Their collective research uses preclinical models of Alzheimer's disease to examine pharmacological and non-pharmacological approaches to intervention and treatment for Alzheimer's disease with the aim of improving disease outcomes. This team recognizes the importance of personalized medicine and is leading studies to determine best intervention strategies based on stage of disease progression.

The Smith Alzheimer's Center has a unique evidence-based, non-pharmacological approach consisting of our "Beyond the Medical Center" programming that is offered at no cost to help our patients and caregivers exercise their brains and bodies to maintain a healthy lifestyle and promote quality of life. Our Beyond the Medical Center programs include a supervised lower body exercise program (Stepping UP), an expressive art program (Art Express), a multifaceted mind program using various types of activities (Minds in Motion), a music program (Music and Memory), a support group (Early Stage Memory Loss Group), a MIND Diet class, and an educational program specific to caregivers called "Dementia Caregiving 101". The Smith Alzheimer's Center Beyond the Medical Center programs not only offer activities to keep the

brain and body active and helps to build a community for those navigating their dementia journey, it also serves as respite for the caregivers, if they decide not to participate in the programs themselves

#### 9.3 Objectives

As defined by the State of Illinois Public Act 90-0404, which established the Smith Alzheimer's Center 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 who are specially trained in the treatment of dementia which may include: 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 patients of Alzheimer's disease and related disorders, (iii) appropriate and adequate equipment necessary for diagnosis and treatment, (iv) 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 patients 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;
- 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

The Smith Alzheimer's Center Administrative Advisory Board meets monthly and the FY23 members included:

- Jayant Acharya, MD, Chair of Neurology and Co-Director of NSI at SIU Medicine
- Joel Milner, Business/Administrative Associate of the Smith Alzheimer's Center at SIU Medicine
- Marcella Bland, Administrative Director of the NSI at SIU Medicine

The Smith Alzheimer's Center Clinical Health, Analytical Neuroscience, and Community Engagement (CHANCE) Advisory Board consists of members of the Smith Alzheimer's Center with additional representation from the SIUSoM community including Center for Clinical Research, the Department of Neurology, Department of Neurology, the Office of Marketing and Communication, the Office of Development and Alumni Relations, and the Department of Public Health the in the School of Human and Behavioral Sciences at SIU. The Internal Advisory Board meets monthly. FY 23 members included:

• Tom Ala, MD, Professor of Neurology and Smith Alzheimer's Center

- Jennifer Arnold, MD, Assistant Professor of Neurology, Smith Alzheimer's Center and PDC
- Ahmad El Kouzi, MD, Assistant Professor of Neurology, Director PDC
- Mehul Trivedi, PhD, Assistant Professor of Clinical Psychiatry, Smith Alzheimer's Center
- Justin McDaniel, PhD, Associate Professor of Public Health, SIU-Carbondale, Smith Alzheimer's Center
- Amber Fifer, PharmD, ACRP-CP, Assistant Professor of Neurology, Director of Clinical Research (Neurology), Associate Director of the Center for Clinical Research, Assistant Professor of Pharmacy at SIU-Edwardsville
- Kevin Hascup, PhD, Assistant Professor of Neurology, Smith Alzheimer's Center
- Cindy Womack, DNP, FNP-BS, CNRN, Neurology, Smith Alzheimer's Center
- Andrea Perkins, FNP-BC, Neurology, Smith Alzheimer's Center and PDC
- Ann Jirmasek, MA, LPC, NCC, Clinical Gerontology Specialist, Neurology, Smith Alzheimer's Center
- Deborah Kuhns, Program Coordinator Smith Alzheimer's Center
- Emily Hassara, Program Coordinator, Smith Alzheimer's Center
- Aren Dow, Marketing Associate, Office of Marketing, Communications, and Engagement at SIU Medicine, Smith Alzheimer's Center
- Lindsey Teefey, Program Coordinator, Smith Alzheimer's Center
- Karen Lee, Program Coordinator, Smith Alzheimer's Center
- Kris Houser, Development Officer, Smith Alzheimer's Center
- Cindy Stelte, Fiscal/Business Assistant, Smith Alzheimer's Center
- Carol Forestier, Administrative Assistant, Smith Alzheimer's Center
- Deidra Frisbie, DNP, FNP-BC, Department of Neurology

The Smith Alzheimer's Center Caregiver Advisory Board was implemented last year and consists of dementia patients and caregivers. The goal of this advisory board is to get direct feedback from caregivers about what is and isn't working, ideas for better utilization of resources, and community relations. Members include:

- Janet Scott, Springfield
- Sue Monteyne, Chatham
- Roger Steinback, Springfield
- Nancy Seelbach, Springfield
- Mel Kuntemeier, Glenarm
- Margaret Millberg, Sherman
- Judy Ground, Springfield

# 10.2 Number of Meetings (In This Year)

Administrative Advisory Board (12); CHANCE Advisory Board (12); Caregiver Advisory Board (5)

#### 11. Annual Performance

# 11.1 Performance Measures (Smith Alzheimer's Center only)\*

Mea	sure	Target for Year	Results in Year
1.	Evaluations of new patients (Springfield site)	N/A	566
2.	Evaluations of new patients (network)	N/A	65
3.	Follow-up patient visits (Springfield site)	N/A	1,818
4.	Follow-up patient visits (network)	N/A	212

Mea	sure	Target for Year	Results in Year
5.	Educational programs (Springfield providers) –	N/A	61
	Number of Programs		
6.	Educational programs (Springfield Providers) –	N/A	2,013
	Attendance		
7.	Clinical Trial Studies – Number of studies based	N/A	10
	on IRB approvals		
8.	Research – Number of publications &	N/A	14
	presentations		

<sup>\*</sup> 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)

Major accomplishments of the Smith Alzheimer's Center in FY23 include:

- The Smith Alzheimer's Center continues to increase awareness of Alzheimer's disease, offer non-pharmacological programming, provide dementia education, continue Alzheimer's disease research, and provide comprehensive high-quality patient care with family support.
- 2. The Smith Alzheimer's Center 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 Regional Alzheimer's Centers under PA 90-0404. The Smith Alzheimer Center submitted its report to IDPH for FY23.
- 3. Smith Alzheimer's Center Members complete continuing education by attending conferences and on-line trainings. In FY23 year 173 continuing education trainings were completed.
- 4. In FY23 the Smith Alzheimer's Center clinical and bench researchers lead and/or participated in 18 studies. Of these, 10 were investigator-initiated bench/translational studies supported by the Smith Alzheimer's Center and/or the National Institutes of Health. The remaining 8 studies were industry sponsored clinical trials. The Smith Alzheimer's Center research-focused team produced 12 peer-reviewed publications in well-respected journals and 9 abstracts resulting in posters and oral presentations at regional, national, and international conferences. The research team consisted of 8 faculty/staff and 22 members.
- 5. "Beyond the Medical Center" continued which consists of 6 different evidence-based programs which offer non-pharmaceutical services for dementia patients and caregivers. These programs are:
  - a. Art Express
  - b. Music and Memory
  - c. Dementia Caregiving 101
  - d. Stepping Up
  - e. Minds in Motion Tuesdays
  - f. Early Stage Memory Loss Support Group
  - g. We added a second Minds in Motion program with a location (the NAACP Springfield, IL office) to better serve the black community that is underserved and at higher risk for developing dementia.
  - h. We also implemented a monthly MIND Diet Cooking class for dementia patients and their caregivers. This class provides hands on cooking experience along with nutritional education regarding food choices for optimal brain health. Participants leave with increased knowledge about brain-healthy foods, how to prepare dishes, and recipe cards to be able to replicate the experience at home.

i. The Beyond the Medical Center programs provided outreach and education for people with dementia, caregivers and families. The number of touchpoints for these programs in FY23 is summarized below:

<u>Program</u>	Persons with Memory Loss	<u>Caregivers</u>	Volunteers/Students
Art Express	296	280	423
Minds in Motion (NAACP location)	300	280	40
Minds in Motion (original location)	180	-	36
Stepping Up	116	133	24
Early Stage Memory Loss	150	150	-
Dementia Caregiving 101	-	192	-
MIND Diet Cooking	14	14	-
Total:	1,056	1,049	523

- 6. In FY23, the Smith Alzheimer's Center increased its commitment to diversity and inclusion by hiring a Program Coordinator specifically focused on increasing access to our education and outreach, and Beyond the Medical Center Programs for our underserved and minoritized communities
- 7. The Smith Alzheimer's Center continues to partner with the local Area Agency on Aging (AGELINC) and Central Illinois Senior Services on the Dementia Friendly Springfield initiative. We now have representation from the Springfield mayor's office, local memory care facilities, local sheriff's office, the Alzheimer's Association, SIU Community Healthcare, and the Chamber of Commerce, which bolsters community awareness and representation. We participated in several public presentations and plan to provide dementia resources and public presentations for cities in Sangamon County which will include Springfield, Sherman, Williamsville, Riverton, Rochester and Chatham in the upcoming year.
- 8. The Smith Alzheimer's Center hosts and participates as experts for the SIU Extension for Community Healthcare Outcomes (ECHO) project for Memory and Aging topics. This offers community medical and healthcare professionals a chance for virtual education and access to the Smith Alzheimer's Center specialists, which is particularly useful for those living and practicing in rural areas. One-hour sessions occur monthly following the ECHO model which is a case-based learning activity. We use the "All Teach, All Learn" model consisting of a 30-minute didactic topic provided by SIU School of Medicine Faculty followed by a case presentation by a community healthcare professional. This gives opportunities for participants to ask questions and provide possible solutions to the case. Participants include partners from central and southern Illinois health systems, nursing home administrators, counselors and senior service organizations. Together this supports the Illinois Public Health Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning.
- 9. The Smith Alzheimer's Center provides hands on educational opportunities in our Memory Clinic as a medical school residency rotation site for the Neurology, Internal Medicine, Psychiatry, and Family and Community Medicine departments.
- 10. We have worked closely this past year with the Illinois state chapter of the Alzheimer's Association, along with the local representative at the Springfield office. We are members of the statewide Diversity, Equity, and Inclusion (DEI) board for the Alzheimer's Association and helped plan the first African American Alzheimer's Educational Conference. We were able to host a "Watch Party" in Springfield, where we were virtually connected to the host meeting in Chicago and engaged Watch Party attendees to discuss local needs.

- 11. The Smith Alzheimer's Center held its annual 2-day Brain Aging conference with more than 200 attendees. One day was dedicated for medical and healthcare professionals and the other day was geared towards community members.
- 12. The Parkinson Disease Center (PDC) has continued to provide clinical care to patients and sponsored several community educational presentations. They also offer a Movement Disorders Fellowship.

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

The Smith Alzheimer's Center advances several priorities of the State of Illinois, SIU, and SIUSoM. As noted, the Smith Alzheimer's Center was established by Public Act 90-0404 as a state-designed Regional Alzheimer's Disease Assistance Center. The Smith Alzheimer's Center has been successful in this role, as evidenced by its continued designation by the State of Illinois as a regional center. The Smith Alzheimer's 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 the Smith Alzheimer's Center's positive impact on patient care, community education and research.

The Smith Alzheimer's Center physicians and other health professional staff provide essential patient care for Alzheimer's and dementia patients in the Smith Alzheimer's Center Springfield clinics, as well as extend their expertise as consulting physicians/professionals for other healthcare professionals in Illinois. 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 Memory Clinic in the Smith Alzheimer's Center to learn the clinical aspects of Alzheimer's disease and dementia, as do SIUSoM medical students and Physician Assistant program students. These activities support SIUSoM and SIU goals for patient care and workforce development.

The Smith Alzheimer's Center 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 participate 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. We also provide laboratory demonstrations and learning opportunities to groups ranging from high school students through Congressional leaders. Together this supports the Illinois Public Agenda, SIU Board of Trustees, and SIU Campus Strategic Planning.

The Smith Alzheimer's Center also advances goals of SIU and SIUSOM, such as those associated with community outreach, public/private partnerships, and research. The Smith Alzheimer's 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 Smith Alzheimer's 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. Furthermore, our research-focused faculty and staff has received several invitations to present their work at national and international conferences, and at other Institute of Higher Education. The Director of the Smith Alzheimer's Center has also been a member of Strategic Planning Committees both at the SIUSoM School of Medicine and SIU System levels, and provides mentorship to faculty at the SIU System level. These activities directly support the SIU Board of Trustee's priorities for community partnerships, SIU

Carbondale's priority for research and innovation, and SIUSoM's goals for research and professional engagement.

The Smith Alzheimer's Center also initiated and participates as content experts for Extension for Community Healthcare Outcomes (ECHO) project designed to improve access and care to people with memory loss. One-hour sessions occur monthly following the ECHO model, as previously discussed.

### 11.4 Evidence of Support for Center/Institute Objectives

The Smith Alzheimer's Center and the PDC directly advanced the objectives described in section 9.3 during FY23. As noted in section 11, patient care, consultation, and referral services were provided in over 2,350 new and return patient visits in the Smith Alzheimer's Center Springfield site and over 250 additional patient visits in the Smith Alzheimer's Center network sites. In addition, the Smith Alzheimer's Center provided consultations and training to our network and other providers through the ECHO platform. These activities support the patient care objectives (Objectives 1 and 2) above. Preclinical, clinical and population health research projects were advanced in FY23, and efforts to increase them continued in support of the research objectives (Objectives 3 and 6). There were 61 educational programs for caregivers and health care providers with attendance of 2,013 in FY23, in support of Smith Alzheimer's Center community educational objective (Objective 4). Note that although the number of educational programs decreased, we were able to increase our total number of attendees. The of Smith Alzheimer's 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 we met our objectives in FY23.

# 11.5 Evidence of Organizational Effectiveness

The strongest evidence of organizational effectiveness has already presented in the preceding sections. The Smith Alzheimer's Center continues to be recognized as a leader in the clinical, educational, and research aspects of Alzheimer's disease and dementia in Illinois and has been effective in growing its reputation nationally and internationally. The Smith Alzheimer's Center faculty and staff members actively participate in regional, state, national, and international conferences and symposia to present findings from their research, and clinical and outreach programs. We continue to offer excellent clinical care including several options for industry-sponsored clinical trial – currently among the best hope for improving patient outcome, support for caregivers, and internationally recognized bench and translational research. Additionally, we have expanded our community partnerships and community outreach and education to increase our ability to serve underrepresented communities at increased risk for dementia. As discussed above, the Smith Alzheimer's Center is meeting its organizational objectives.

# 12. Institutional Assessment

12.1	Date of Last Review	2019-2020		
12.2	Decision at Last Review	X	Center/Institute in Good Standing Center/Institute Flagged for Priority Review Center/Institute Suspended	
12.3	Explanation	N/A		

**RESOURCES: Dale and Deborah Smith Alzheimer's Center** 

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State	\$1,522,380.95	\$1,518,000.00	1,518,000.00	1,644,500.00	1,391,500.00
Appropriations	<b>4</b> 1,022,000.00	ψ :,σ :σ,σσσ:σσ	.,0.0,000.00	.,,	.,,
Income Fund					
Grants &	\$1,513,889.11	\$2,249,819.59	\$1,677,304.36	\$2,360,743.73	\$1,950,134.61
Contracts	, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,
Transfers In- Conference Fees/IDC			\$414.66	\$433.00	\$1,919.68
Transfers In – SOM/Foundation				\$156.99	
Practice Plan		\$62,074.20	\$45,312.15	\$37,915.20	\$29,762.40
Total Revenues	\$3,036,270.61	\$3,829,893.79	\$3,241,031.17	\$4,043,748.92	\$3,373,316.69
Expenditures*					
Travel	\$22,260.44	\$3,430.58	\$1,847.73	\$7,308.84	\$19,818.46
Equipment	\$539,316.94	\$23,637.99	\$7,045.47	\$239,476.66	\$109,811.93
Commodities	\$321,099.49	\$407,984.18	\$252,182.46	\$270,954.24	\$187,611.61
Contractual Services	\$303,336.88	\$513,881.44	\$487,710.16	\$600,093.20	\$755,859.14
Telecom	\$11,376.17	\$5,720.18	\$4,827.24	\$5,108.26	\$3,857.12
Rent	·				
Fringe Benefits	\$153,101.57	\$158,062.04	\$171,909.92	\$212,680.52	\$166,985.95
Grants & Contracts Indirect Costs	\$466,372.18	\$566,995.97	\$458,007.62	\$662,648.41	\$448,713.32
Transfers Out	\$500	\$135,646.28			
Salaries	\$1,225,367.35	\$1,208,523.40	\$890,424.29	\$1,103,654.45	\$874,520.42
Total Expenditures	\$3,045,117.53	\$3,023,882.06	\$2,293,954.89	\$3,101,924.58	\$2,567,177.95
Revenue Minus Expenditures	\$ (8,847.47)	\$806,011.73	\$947,076.28	\$941,824.34	\$806,138.74

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

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
Faculty	4	5.29	4.29	4.29	5.29
Staff	18	12.69	12.24	11.79	11.92
Total Staffing	22	17.98	16.53	16.08	17.21

**RESOURCES: Parkinson's Disease Center** 

	FY23		FY22		FY21		FY20	FY19
Income	\$	185,196.15	\$	67,874.80	\$	74,283.06	•	•
Equip			\$	-	\$	2,434.54	-	-
supplies		-	\$	1,518.24	\$	1,366.95	-	-
Contractual		\$60,568.40		\$26,031.20		\$30,194.40	-	
Contractual		\$00,308.40		\$20,031.20		330,134.40		_
Facility Service	\$	230.00	\$	137.50	\$	65.00	-	-
Hospital	ے ا	16.055.40	٠	4 560 00	خ	6 000 00		
Services	\$	16,055.40	\$	4,560.00	\$	6,090.00	-	-
Patient Care		\$ 9,000	\$	13,117.20	\$	2,000.00	-	_
		•		,		,		
Pharmaceutical								
Serv		-	\$	3,750.00	\$	16,750.00	-	_
			,	, , , , , , , , , , , , , , , , , , ,				
Clinical Trial	\$	220.00	\$	390.00	\$	120.00	-	-
Travel				-	\$	456.92	-	-
0								
Central Plant		-		-	\$	562.50	-	-
Indirect Cost	\$	21,510.69	\$	9,029.16	\$	11,667.70	-	-
						· .		
Total Expenses	\$	107,584.49	\$	58,533.30	\$	71,708.01	-	-
Margin	\$	77,611.66	\$	9,341.50	\$	2,575.05	-	-

Based on the information that you have been provided for previous years against the Alzheimer's center we find that there is no information for Parkinson's for FY19 and FY20 because there was no direct revenue to be received in those years.

There are no staffing costs to the PDC and therefore no staffing information has been provided.

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022- June 30, 2023

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

1.	Reporting Institution	Southern Illinois University Carbondale			
2.	Center/Institute	Fermentation Science Institute (FSI)			
3.	Date	3/18/2024			
4.	Director	Matthew McCarroll			
	4.1 Telephone	618-453-7508			
	4.2 E-mail	mmccarroll@siu.edu			
5.	Year Established	2014 (approved by IBHE)			
6.	Illinois State Statute	N/A			
	(if pertinent)				
7.	Reporting Unit	Dean (College of Agricultural, Life, and Physical Sciences)			
	. reperming Crim	and Vice Chancellor for Research (dotted-line reporting)			
8.	Туре	Activity			
		(check all that apply)			
	Instructional	X			
	Research	x			
	Public Service	X			

<sup>\*</sup> 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, biomanufacturing, 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 – Annheuser 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 \*

Mea	sure	Target for Year	Results in Year	
1.	Fundraising	-	7 donors - \$15,374	
2.	Research Projects	2	1	
3.	Sponsored/Hosted Events	2	14	
4.	Carbondale Brewfest	-	\$5,162.97**	
5.	FSI related Grant Proposals Submitted	2	7	
6.	Grant Proposals Funded	1	1	
7.	Testing & Services	\$30,000	\$42,822.84	

<sup>\*</sup> Center/institute-defined measures and targets. Depending on the particular center/institute, these may include intellectual contributions (such as publications), grants, public service activities. \*\*Reflects 2022 and 2023 payments received in FY24, not reflected in resources table

#### 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
  - Ongoing design and construction planning for pilot facilities of the iFERM Hub. Construction planning is nearly complete, including infrastructure needed for Ravinia Brewing to install their brewery
- Ongoing optimization of infrastructure and staffing for business operations of the FSI, including support for the academic, research, outreach, and event management activities of the institute

#### Programmatic

- New faculty member (Dr. Marta Albio Tapia) on board as an assistant professor of practice, leading our sensory science programs
- o Administered the 4-year BS degree in fermentation science
- Developed and launched first SIU branded beer in partnership with Ravinia Brewing Company. King Ale is a student developed and collaboratively produced beer being sold in the marketplace. Proceeds are split between Ravinia and the FSI, which will go to support students and other FSI activities.
- Won competition as top four beer in the Lazy Dog Restaurant's Beer Club amongst 100+ entries from commercial breweries. The student developed Time Traveler beer was re-released in the fall of 2023.

#### Fundraising Activities

 During FY23 seven donor provided gifts totaling \$15,374, including the establishment of the Karen "K-Dawg" Jakstas Memorial Scholarship Endowment

#### Research

- Support of research activities in fermentation science
  - 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
  - Three student research projects were facilitated, including \$4,371 in research related expenses provided by the FSI

#### Service and Outreach

 Continued growth of the FSI Service Laboratory, which is a fee-for-service 3<sup>rd</sup> party testing facility specializing on analysis of alcoholic beverages

- Renewed certifications from the Federal Tax and Trade Bureau for the analysis of beer, wine and spirits (one of only a few 3<sup>rd</sup> party testing facilities triply certified for beer, wine and spirits nationally)
- Provided services for 30 unique clients (over 120 in total), including services helping to launch new business and products
- Provides training and student work opportunities for students
- Manages testing services of the Core Facility for Ecological Analysis
- In FY23, 3,016 analyses were performed on 2,455 submitted samples for a revenue of \$42,822.
- 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)
  - Producing member of the Craft Maltsters Guild (Director is member of Technical Committee)
  - Outreach and professional consultation to fermentation businesses
  - Co-organized with Carbondale Mainstreet the 9<sup>th</sup> annual Carbondale Brewfest

# 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 9 graduates.

Faculty Hires. The FSI obtained funding for hiring an assistant professor of practice in the area of sensory science. Dr. Marta Albiol Tapia was hired and began in the August of 2022. Her appointment is 100% in the FSI supporting the mission of the FSI and is a key resource supporting the fermentation science degree program.

General Promotion of FSI, degree program, and the iFERM Hub. Significant effort was placed on promoting the FSI and the degree program, as well as broader activities under the auspices of the iFERM Hub and Biolaunch. During FY2023, the FSI hosted 59 events, activities or tours for the campus community, local businesses, civic groups. As a result, approximately 410 individuals were toured the FSI, the McLafferty Annex and learned about the iFERM Hub and the BioLuanch project. In addition, the Director gave 8 invited presentations promoting the FSI, including multiple civic and professional organizations.

#### 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. These activities will accelerate significantly with completion of the iFERM Hub and the BioLaunch facilities.

### 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 FY23, 3,016 analyses were performed on 2,455 submitted samples for a revenue of \$42,822.

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 workshops for high school students and community members.

Pilot Facilities. Pilot facilities are either complete and in place or are in various stages of planning and implementation. The Director was Principal Investigator (with the Vice Chancellor for Research and the Executive Director of the SIU Research Park serving as co-leads) on an infrastructure grant that was submitted to the Illinois Innovation Network (IIN), requesting \$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 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, which was appropriated and announced by Governor Pritzker in February of 2020. Funds were finally released to the Capital Development Board in March of 2023 and the process is moving forward.

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. As part of the iFERM Hub expansion, a 4-barrel brewery will be available to develop as a student-run campus brewery.

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.

Fermented Beverage Facility. As part of the pilot facilities equipment will be available for the production of fermented beverages, including wine, kombucha and other beverages. These new developments will allow the FSI to further strengthen synergies with the wine industry in the region.

Cheese and Fermented Dairy Facility. As part of the iFERM Hub expansion, facilities will be in place to produce a campus cheese program. This is an

excellent opportunity for SIU and the fermentation science program, as well as supporting current and future dairy businesses in the region through R&D support and product testing.

Malting Facilities. The SIU Malting Facility, provided by a grant from the USDA Rural Development Program, has been installed is currently in operation. The malting facility serves as both a training hub and a demonstration site to support and spur economic development in value-added agriculture. In addition, we have launch a campus branded malt that is made by students and marketed to local brewers. Revenue comes back to support students and the program.

Faye Minor Magill 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 Faye Minor Magill. 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. After being cancelled for two years during the pandemic, the Carbondale Beer Festival was relaunched in May of 2022 and again in May of 2023. Revenue from the festival totalled \$5,162.97 for the past two years.

Service and Catering Operations. The FSI provides service for campus organizations and units needing certified servers for alcoholic beverage service for approved events. These operations provide a service for the campus community while providing employment opportunities for students in fermentation science. It also provides a positive engagement between the public and students representing the program, often by them pouring beers they helped to develop. These activities generated \$7,787 in gross revenue, most of which went to support students in the form of student wages.

#### 11.5 Evidence of Organizational Effectiveness

The institute continues to benefit from stable and efficient staffing the past 4 years. Despite additional challenges during the pandemic, efficient operations were maintained due to the efforts of a strong team. All business 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. This was particularly impactful as the brewing industry pivoted from on-premises draft-based sales to primarily packaged sales and the increased demand of quality control testing. Support for an additional staff member in the Service Laboratory has been committed by the office of the Vice Chancellor for Research. This search will be initiated in the near future and will support expansion of services with BioLaunch and the iFERM Hub.

Challenges remain in the realm of instructional capacity for the fermentation science program. The instructional needs for courses needed to maintain adequate student progress have largely been met by effort of the Director in addition to normal duties and by careful scheduling of courses. The instructional capacity of the FSI was improved with the faculty hire in August of 2022, but additional capacity is needed to provide for necessary growth and stability in the degree program and to add necessary expertise, for example in the areas of distilling and food fermentation. Efforts to develop additional resources to improve the effectiveness and impact of the FSI are ongoing.

12.	. Institutional Assessment						
	12.1	Date of Last Review	Permanent Status for FSI Granted by IBHE 2019, Degree Program Reviewed in 2021 and in Good Standing				
	12.2	Decision at Last Review	x Center/Institute in Good Standing Center/Institute Flagged for Priority Review Center/Institute Suspended				
	12.3	Explanation					

# **RESOURCES: Fermentation Science Institute**

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State	281,657.57	213,498.02	223,861.43	198,696.37	184,712.22
Appropriations					
Service Lab*	68,962.77	36,527.12	32,997.00	37,129.36	15,484.19
Overhead	(1,802.00)	0.00	250.00	3,766.09	15,000.00
Recovery	payback				
(expenditure)					
Overhead Recovery	***	28.37	75.94		
(income)					
Course Fees	960.00	1,485.00	1,020.00	1,035.00	1,380.00
Awards and	0**	6,700,000+++	1,140,000††	160,427.00†	53,244.47
Grants					
Total Revenues	369,661.92	6,951,538.51	1,398,204.37	401,053.82	269,820.88
Expenditures					
Salaries + Wages	291,698.64	196,508.83	217,096.43	189,475.70	153,884.72
Travel	11,858.97	1385.17	373.87	6,575.86	12,112.33
Equipment	1,376.40	2,930.30	5,701.81	108,444.04	53,315.70
Commodities	27,569.16	8,500.64	17,357.41	25,251.67	14855.00
Contractual	8,578.58	6,354.02	5701.81	20,377.25	9129.94
Services					
Awards and	0**	0**	0	0	0
Grants					
	651.72	147.14	1,091.45	734.07	613.26
Telecommunications					
Course Fees	1096.79	588.46	1,459.69	276.51	1,839.16
Total Expenditures	342,830.26	216,414.56	248,782.47	351,135.10	245,750.11
Revenue Minus Expenditures	26,831.66	6,735,123.95	1,049,421.90	49,918.72	24,070.77

<sup>\*</sup>Includes beginning balance of \$5,832.15.
\*\*Ongoing project cost not included.
\*\*\*Not available

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
Faculty	1.42	.38	.38	.25	.5
Staff	2.5	2.5	2.5	2.5	2.5
Total Staffing	3.92	2.88	2.88	2.75	3.0

<sup>†</sup>Represents beginning balance from FY18 of \$120,427 ††Represents beginning balance from FY18 of \$40,000

<sup>†††</sup>Represents beginning balance from FY21 of \$1,140,000

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

(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 5, 2024
4.	Director	Boyd M. Goodson
	4.1 Telephone	618-453-7177
	4.2 E-mail	_bgoodson@chem.siu.edu
5.	Year Established	1997
6.	Illinois State Statute (if pertinent)	N/A
	(ii pertinent)	
7.	Reporting Unit	College of Agricultural, Life, and Physical Sciences
8.	Туре	Activity
	Instructional	(check all that apply) √
	Research	<u> </u>
	Public Service	V

<sup>\*</sup> 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, the Fisheries and Illinois Aquaculture Center, and the College of Engineering, Computing, Technology, and Mathematics. Recent interdisciplinary collaborations benefitting soybean production include research projects addressing cover crops, microbiome research with plant pathogens, the use of multispectral imagery with UAVs and other systems to monitor plant health, studies of soybean enzymes, studies related to soybean biodiesel production (including studies of relevant catalysts and the development of value-added chemicals), nutrition and benefits of soy in diet, non-thermal treatments for soybean to improve use in feed, novel encapsulation methods for antifungal compounds, characterization of herbicide resistance, and more. The faculty collaborate with scientists with land grant universities in the U.S. and international institutions and research centers. During the past eight 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. (Note: the list below represents the current make-up of the Board of Directors, including membership changes that occurred after this report's reporting period.)

- 1. Associate Dean, CALPS Boyd Goodson (Director, SIU Soybean Center)
- 2. Director of Agricultural Sciences Ira Altman
- 3. Director of Biological Sciences Frank Anderson
- 4. Director of Earth Systems and Sustainability Justin Schoof
- 5. Director of Human Sciences Juliane Wallace
- 6. Director of Chemical and Biomolecular Sciences Qingfeng Ge
- 7. School of Medicine Judy Davie
- 8. Center for Fisheries, Aquaculture & Aquatic Sciences (vacant)
- 9. Illinois Soybean Association Jennifer Jones
- 10. Illinois Soybean Association Brady Holst
- 11. Dean, CALPS Ex Officio Eric Brevik

**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. (Note: the FAB did not meet during the reporting cycle; membership will be reviewed during the next cycle.)

Faculty Member
Dwight Sanders
Ed Heist
Gary Apgar
Dawn Null
Kanchan Mondal

Discipline Areas
Agribusiness Economics
Animal Biotechnology
Animal Nutrition
Food and Nutrition
Engineering/Technology

Scott Hamilton-Brehm Microbiology

Buck Hales (retired) Medical Physiology Plant

Andrew Wood Biology
Stella Kantartzi Plant Breeding

Ahmad Fakhoury Plant Pathology/Nematology

Karla Gage Weed Science Amir Sadeghpour Soil Science

#### 11. Annual Performance

# 11.1 Performance Measures \*

Mea	sure	Previous Year	Results in Year
1.	Publications	11	7
2.	Public Service Activities (Field Days,		
	Conferences, workshops, etc.	12	22
3.	National/Regional Research Projects or		
	Working Groups	8	9
4.	Graduate Students Trained (MS and PhD)	29	25
5.	Undergraduate Student Workers Trained	16	23
6.	Undergraduate Leadership Training (Agronomy		
	Honor Society)	0	0
7.	Undergraduate Job Placement/Graduate		
	School	7	5
8.	Graduate Students Job Placement/Graduate		
	School	10	5
9.	Grant Dollars	\$4,017,616	\$1,455,561
10.	Internships	6	3

<sup>\*</sup> 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 Board of Directors developed and released a request for proposals and was open to all faculty. The available funding source was the interest gained from the Endowed fund and the University match. Proposals were selected for funding and represented many program areas and faculty within CALPS, the School of Medicine, and Engineering.

# 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 over 1,000 industry, alumni, and soybean stakeholders in the past year. Center faculty also helped place 10 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 25 graduate students (MS and PhD).

**Support undergraduate research activity** – Faculty research grants led to the support of 23 undergraduate student researchers.

**Enhance the university's external reputation** – Faculty were engaged with 9 National/Regional Research Projects. Faculty (and their students) also contributed via publications, conference presentations, and 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 1000 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 7 publications in scientific journals and provided crop management recommendations via extension talks and publications.

Maintain a minimal critical mass of faculty — Over the last several years (continuing statements in previous reports), 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. Nevertheless, the Soybean Center supported 8 research projects with seed funding for the 2022 funding cycle and very recently, 7 research projects with seed funding for the 2023 funding cycle. Taken together, 19 unique faculty have been recently awarded seed funding (as PI or co-PI)—funding that will hopefully lead to successful efforts to secure external funding for new soybean-related research projects.

#### 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** - SIU soybean researchers maintain a strong tradition of seeking funding from the national United Soybean Board and being the Lead Investigators on funded

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 seeking external funding opportunities, as evidenced by the wide variety of backgrounds and affiliations of our involved faculty and the funding of seed grants involving a wide range of different soybean-related research projects.

# 11.5 Evidence of Organizational Effectiveness

Dr. Eric Brevik, who serves ex officio on the Board of Directors, continues to serve as the inaugural Dean of CALPS. Many new schools and program areas are already part of the ISC. We seek even greater multidisciplinary collaborations in soybean research to benefit Illinois Soybean growers. Under Dr. Brevik's leadership, a new Board of Directors was seated, representing all new schools in CALPS and critical schools from outside the College (and new board members were identified and seated this cycle). A second call for grants went out last year and 7 were funded by the Board. Since the ending of this budget period, a permanent Associate Dean – Research was selected (Boyd Goodson), and as part of this new position in the college, became the new permanent director of the SIU Illinois Soybean Center (meeting a requirement of the operating documents of the Center—i.e., that the center director should be an associate dean). Drs. Brevik, Groninger, and Bond greatly aided in the transition for the new director, bringing him up to speed on Center operations. Finally, the CALPS The Board of Directors has since met and refined the 3rd annual RFP. This RFP was just released in February 2024 (aspects of the RFP will be discussed in greater detail in the next annual report).

LZ.	institut	ionai Assessment		
	12.1	Date of Last Review	2021	
	12.2	Decision at Last Review	V	Center/Institute in Good Standing Center/Institute Flagged for Priority Review Center/Institute Suspended
	12.3	Explanation		rovide any explanation necessary of the institutional ent or plans for pending program review)

# **RESOURCES: Illinois Soybean Center**

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State Appropriations	_	-	_	-	_
Income Fund	_	_	_	-	_
Grants & Contracts	-	-	-	8,216,497	2,455,216.00
(faculty research activity)**				, ,	, ,
University Match on Interest from Endowment***	23,376.89	25,272.49	22,936.98	21,816.86	20,542.51
Distribution from Endowment	23,376.89	25,272.49	22,936.98	21,816.86	20,542.51
Total Revenues****	-	-	-	-	-
Expenditures*					
Salaries	-	-	-	-	-
Fringe Benefits	-	-	-	-	-
Travel	-	-	=	-	-
Equipment	-	-	=	-	-
Commodities	-	-	=	-	-
Contractual Services	-	-	=	-	-
Award and Grants (Grad As. Fee)	-	-	-	-	-
Operation of Auto	-	-	-	-	-
Telecommunications	-	-		-	
Total Expenditures	-	-	-	-	-
Revenue Minus Expenditures	-	-	-	-	-

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

<sup>\*\*\*\*</sup> Total Revenues does not include Grants and Contracts, that are managed by faculty.

Staffing (Full Time Equivalent)	FY2022	FY2021	FY2020	FY2019	FY2018
Faculty	-	-	-	-	-
Staff	-	-	-	-	-
Total Staffing	-	-	-	-	-

<sup>\*\*</sup> 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 2021.

<sup>\*\*\*</sup> University Match received in 2018 includes the matches for FY14, FY15, FY16; FY23 funds are pledged.

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022- June 30, 2023

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

1.	Reporting Institution	Meyers Institute
2.	Center/Institute	Meyers Institute
3.	Date	02/21/2024
4.	Director	Yuqing Hou (Acting)
	4.1 Telephone	(618)-453-5174
	4.2 E-mail	houyq@siu.edu
5.	Year Established	(2000, and re-established in 2020)
6.	Illinois State Statute (if pertinent)	(if created by Illinois state statute, list the specific statute by number and title; otherwise, list N/A)
7.	Reporting Unit	VCR
8.	Туре	Activity
		(check all that apply)
	Instructional	Yes
	Research	Yes
	Public Service	No

<sup>\*</sup> 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 Meyers Institute for Interdisciplinary Research in Organic and Medicinal Chemistry was initiated by late Distinguished Professor Cal Y. Meyers through a \$3 million endowment to SIU foundation in 2000. Cal Y. Meyers served as the first director of the institute until his death in 2012. The institute currently is managed by Dr. Yuqing Hou. Professor Meyers firmly believed that basic research leads to new applications and broad-field publications. Students with exposure to a variety of interdisciplinary research activities are prime candidates for positions in the scientific, medical, and commercial sectors.

The institute has provided assistantships, postdoctoral fellowships, and undergraduate stipend during the past years. The students get their degrees in chemistry. Currently, the institute supports two graduate students, who are working on their advanced degrees.

The Institute is located in the Neckers Building, which houses the Department of Chemistry and Biochemistry.

#### 9.2 Mission

The institute carries out basic research in organic chemistry, medicinal chemistry and related interdisciplinary fields. The institute aims to provide education opportunities for undergraduate, graduate, and postdoctoral students in these fields.

# 9.3 Objectives

The current objectives of the institute are:

Holding biannual symposium to promote SIUC and research

Teaching and supporting students in the institute

Recruiting more students

Seeking external funding

Providing instructional service to the Department of Chemistry and Biochemistry when needed Carrying out research activities

Communicating results to scientific communities

# 10. Advisory Board

# 10.1 Advisory Board - Membership

Dr. Chuck Rawlings

**Professor Rob Schwartz** 

Ms. Gayla Borgognoni

#### 11. Annual Performance

#### 11.1 Performance Measures \*

Measure		Target for Year	Results in Year
1.	Continue on three research projects	3	3
2.	Teach courses in Chemistry	1	1
3.	Recruiting graduate students	1	1
4.	Publications/conferences	1	1
5.			

<sup>\*</sup> 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. Yuqing Hou taught Chem 543, one of the required core courses for organic graduate students, in the School of Chemical and Biological Sciences.

Nadiya Iqbal has joined the insitute as a PhD student.

Completed a small collaborative project on polyethylene glycol modification with Kromatex, a small grant of \$2040.

The Institute has initiated a renovation project of Lab 305 in Neckers Building. The institute initiated a seed grant program and awarded Dr. Divya Prakash and Dr. Punit Kholi \$12,000 for their collaborative proposal entitled: Generation of reactive oxygenated and chlorinated species for fast deactivation of broad-band microorganisms through electrically-polarized surfaces.

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

Dr. Yuqing Hou volunteered as Regional and State Illinois Junior Science Fair judge.

# 11.4 Evidence of Support for Center/Institute Objectives

The institute has contributed to the School of Chemical and Biological Sciences by teaching chemistry courses. Dr. Yuqing Hou also serves on several graduate students' committees, helping and guiding the students, writing cumulative exams.

Graduate students from other groups frequently come to Dr. Yuqing Hou to ask for advice on their synthetic chemistry projects.

The Institute provided financial support for the graduate students carrying out research in the institute

The institute initiated a seed grant program and awarded Dr. Divya Prakash and Dr. Punit Kholi \$12,000.

Our biannual Meyers Symposium has been postponed because of the pandemic. We will resume this biannual meeting soon.

# 11.5 Evidence of Organizational Effectiveness

The institute has been managed by Dr. Yuqing Hou since Dr. Meyers's death. We have graduate students doing research with us, and we also contribute to the School of Chemical and Biological Sciences. He also manages the account/PCard, and purchases chemicals.

12.	Institut	ional 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: Meyers Institute**

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State Appropriations	0	0	0	0	0
Income Fund	75,269.63	75,000.00	150,000	150,000.00	120000.00
Grants & Contracts	0	0	0	0	0
Previous year balance	13,161.30	21,000.10	59315.00	39000.00	28000.00
XXX	,	,			
XXX					
Total Revenues	88,430.83	96347.20	209315.00	189000.00	148000.00
Fringe benefits	2,8932.62	29,457.92	35000.00	33400.00	30000.00
Contractual service	4,016.40	2,526.29	7920.00	410.00	3000.00
Salaries	77,594.50	86,749.50	102000.00	78100.00	100500.00
Commodities	2,837.61	9,035.20	5165.00	3200.00	7500.00
Equipment	0	2527.00	2600.00	1100.00	6000.00
Awards & Grant	270.00	450.00			
Building maintenance	10,320.04				
Total Expenditures	123,970.81		152685.00	129685.00	147,000.00
	·	·	·	·	
Revenue Minus Expenditures	(35,539.98)	13161.30	56630.00	59315.00	1000.00

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

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
Faculty					
Staff	1	1	1	1	1
Total Staffing	1	1	1	1	1

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022- June 30, 2023

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

1.	Reporting Institution	Southern Illinois University School of Medicine
2.	Center/Institute	SIU Neuroscience Institute
۷.	Center/mstitute	Sio Neuroscience institute
3.	Date	2/1/24
4.	Director	Kari Wolf M.D., Jayant Acharya M.D.
	Birootor	Trail Woll M.B., dayane Horiarya W.B.
	4.1 Telephone	217-545-7625; 217-545-7226
	4.2 E-mail	Kwolf48@siumed.edu; jacharya37@siumed.edu
5.	Year Established	Academic Year 2015
Ο.	roar Ediabilottoa	Addding Four 2010
6.	Illinois State Statute	N/A
	(if pertinent)	
7.	Reporting Unit	Southern Illinois University School of Medicine
8.	Type	Activity
		(check all that apply)
	Instructional	X
	Research	X
	Public Service	X

<sup>\*</sup> 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.

#### 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 Springfield Memorial Hospital (SMH), 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 SMH'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
(including child and adolescent 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 FY2023 include:

- Kari Wolf, MD, Professor and Chair, Psychiatry, SIU School of Medicine (Co-Executive Director)
- Jayant Acharya, MD, Professor and Chair, Neurology, SIU School of Medicine (Co-Executive Director)
- Marcella Bland, MBA, NSI/SIU School of Medicine (Administrative Director)
- Jeffrey Cozzens, MD, Professor and Division Chair, Neurosurgery, 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
- Michelle Lynn, Executive Director, SIU Clinical Operations
- Kevin England, Senior Vice President and Chief Administrative Officer, Memorial Health
- Evan Davis, Administrator, Vice President, Clinical Operations, Memorial Health
- Charles Callahan, PhD, President, Memorial Health Hospital Group and President & CEO, Springfield Memorial Hospital
- 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 for FY23	Results in FY23
1.	Patient Encounters – Visits	60,000	43,371
2.	Total Patients Served – Unduplicated Count	15,900	18,590
3.	New Patients Served – Unduplicated Count	3,100	8,056

Measure		Target for FY23	Results in FY23
4.			
5.			

<sup>\*</sup> 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 SIU Neuroscience Institute continued to mature during FY2023 by continued expansion and integration of Behavioral Health services in the region, maturing the institute's internal operational and financial framework, furthering the research and academic missions of the NSI and continued recruitment of faculty to the NSI. These efforts have advanced the SIU Neuroscience Institute. Department specific and overall NSI accomplishments include:

# Neurology:

- In conjunction with Springfield Memorial Hospital the Stroke One call program completed
  its first year and continued to evolve. The program is based at Decatur Memorial Hospital
  (DMH) with primary stroke center designation to serve all Memorial affiliate hospitals. The
  program allows for patient triage and assignment to appropriate facility dependent on level
  of acuity.
- In conjunction with Springfield Memorial Hospital, continued to provide much of the physician support for the Joint Commission (JCAHO) accredited Comprehensive Stroke Center.
- Completed onboarding of 1 Epilepsy Faculty recruitment.
- In conjunction with Springfield Memorial Hospital, continued to support a Level 3 Comprehensive Epilepsy Program from the National Association of Epilepsy Centers with a goal to develop into a Level 4 program within the next 1-2 years.
- Completed 74 continuous video-electroencephalograms (EEG) at Springfield Memorial Hospital's Epilepsy Monitoring Unit (EMU).
- Continued the Comprehensive Epilepsy Program services and capabilities; by providing advanced treatment options to our high-complexity patients requiring stereo electroencephalography (SEEG), vagal nerve stimulator (VNS) and deep brain stimulation (DBS) of the anterior nucleus of the thalamus.
- Maintained certification for Responsive Neurostimulator (RNS) system as of October 2020
- Implanted 6 patients with RNS device.
- Continued the Heart/Brain multidisciplinary clinic.
- Continued to mature multidisciplinary programs in Epilepsy, Deep Brain Stimulation and Brain Tumors with additional providers, streamlined operations and community education.
- Implanted 18 VNS devices.
- Furthered the academic mission through 45 total active studies. These include 21 investigator-initiated, 22 sponsored clinical trials and 2 animal study protocols, 19 reviewed publications, 24 abstracts, posters & presentations, 7 book chapters and 6 grants awarded.
- Continued an outpatient program in Physical Medicine and Rehabilitation for musculoskeletal pain, spasticity, mild traumatic brain injury and non-operative sports medicine

 Continued to provide an ECHO (Extension for Community Healthcare Outcomes) training community-based primary care providers to treat patients with Alzheimer's and related memory disorders

# Psychiatry:

- Continued integrated clinics at SIU pediatrics, family medicine and Memorial Behavioral
  Health by increasing the number of providers, operating an open access/walk-in clinic to
  better address needs or people with severe and persistent mental illness, with continued
  services to Carbondale.
- Continued NSI Multidisciplinary Clinics to include a DBS pre-surgical evaluation clinic with psychiatric and neuropsychological assessments and epilepsy pre-surgical neuropsychological assessments.
- With move of the SIU Federally Qualified Health Center for Healthy Aging and Wellness into their new site, planning commenced to embed geriatric psychiatric services.
- Completed recruitment of 1 Adult Psychiatry faculty member, 2 Child and Adolescent Psychiatry faculty members and 1 Physician Assistant, 1 Medicine Psychiatry faculty member, 2 Psychology faculty members and 1 Neuropsychologist Faculty Member, 1 psychiatric-mental health nurse practitioner (PMHNP) and 1 Physician Assistant child division.
- 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 as well as to recognize and treat common psychiatric conditions.
- Continued 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.
- Continued an Esketamine clinic to treat patients with refractory depression, adding to the
  multiple other interventional psychiatric treatment options to refractory patients. SIU is
  now the only location in Illinois outside of Chicago to offer Electroconvulsive Treatment
  (ECT), Vagal Nerve Stimulation (VNS), Transcranial Magnetic Stimulation (TMS), and
  Esketamine to patients with severe and/or refractory depression.
- Continued to offer telepsychiatry and teletherapy services across Illinois to improve access to psychiatric and therapeutic care.
- Continued clinic within a specialized school for children with autism.
- Continued to provide specialty psychiatric care for children and adults with developmental disabilities.
- Provide phone consultation clinic to rural primary care clinic.
- Furthered the academic and research mission through 21 investigator-initiated studies, 11 industry sponsored clinical trials, 10 grants, 12 peer reviewed publications, 6 book chapters as well as 27 presentations at National Meetings.
- 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.
- In March of 2023, Governor JB Pritzker held a press conference in Springfield, IL to celebrate the launch of the new Behavioral Health Workforce Center (BHWC).

- Recruitment and searches were launched to build the infrastructure for the team that will
  drive the work and deliverables of the BHWC. Completed recruitment of 4 program
  coordinators and 1 marketing associate.
- Dr. Kari Wolf was named Chief Executive Officer of the BHWC.
- The Chief Operating Officer for the BHWC was named.
- SIU SOM, through its BHWC began its partnership with the Illinois Department of Human Services to transform the Choate Mental Health & Developmental Center in Anna, Illinois. SIU SOM was sought out to help design and develop a plan to transform the campus infrastructure to support the needs of residents and staff, and identify best practices to ensure safe and healthy resident and work environments on the campus.

### Neurosurgery:

- Continued collaboration with Springfield Memorial Hospital to implement and expand the Deep Brain Stimulation program at Springfield Memorial Hospital, in addition to the pre-existing program at St John's Hospital.
- Completed 18 Deep Brain Stimulation Procedures.
- Continued the Comprehensive Epilepsy Program by continuing neurosurgical capabilities, including stereo electroencephalography (SEEG), incorporating the ROSA Surgical Robot and deep brain stimulation of the anterior nucleus of the thalamus and Responsive Neurostimulation.
- Continuing the Neurosurgery's Residency Program by graduating our second Resident in June 2023 and recruiting new Residents
- Furthered the academic and research mission through 13 investigator-initiated studies, 3 industry sponsored clinical trial and 5 peer reviewed publications
- Completed recruitment of 1 Neurosurgery faculty.

### Neuroscience Institute (NSI):

- Continued multidisciplinary clinics for epilepsy, movement disorders, Heart/Brain and spine.
- Ended FY23 with a positive operating margin, the fifth time since the formation of the NSI in 2015
- Continued Movement Disorders treatment program by expanding Deep Brain Stimulation surgeries.
- Continued providing clinical leadership to the Springfield Memorial Hospital Pain Program through the Memorial Pain Clinic.
- Began planning for a single building to house the entire Neuroscience Institute.

# 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 22, 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 balancing finance and accounting operations for the Departments of Neurology, Psychiatry, PM&R and the Division of Neurosurgery based on the needs of the respective Departments and divisions. 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 despite the ongoing challenges with national staff shortages, and the ebb and flow of pandemic surge rates.

## 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.

12.	Institutiona	l Assessment

12.1	Date of Last Review	To be reviewed 2023-2024	
12.2	Decision at Last Review	N/A	Center/Institute in Good Standing Center/Institute Flagged for Priority Review Center/Institute Suspended
12.3	Explanation	N/A	

## **RESOURCES: SIU Neuroscience Institute**

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State Appropriations					
Income Fund					
Grants & Contracts					
Patient Care Revenues	\$9,399,043	10,463,589	11,070,774	8,679,930	8,862,475
Non-Patient Care Revenues <sup>1</sup>	\$2,210,001	1,795,183	1,828,848	1,335,741	1,017,762
Ancillary Revenue <sup>1</sup>	\$1,191,179	1,097,272			
Accumulated Balance <sup>2</sup>					
Total Revenues	\$12,800,223	12,258,772	12,899,622	10,015,671	9,880,240
Expenditures					
Department Overhead <sup>3</sup>	\$2,898,501	2,083,696	2,056,149	1,549,796	1,221,411
Space Costs	\$1,113,643	1,022,167	1,067,582	863,013	873,753
Malpractice Insurance	\$174,029	353,050	237,658	638,359	834,940
Other Direct Expenses	\$552,421	195,584	961,084	974,991	1,034,325
Academic Support Expenses	\$1,314,252	1,253,997	927,310	926,702	930,661
Provider Compensation <sup>3</sup>	\$3,562,716	4,303,287	3,297,744	2,895,102	2,826,743
SIU MED Overhead <sup>3</sup>	\$1,225,289	929,825	1,009,755	977,626	978,601
Ancillary Expenses	\$1,207,788	1,082,463	801,247	932,131	541,549
Total Expenditures	\$12,048,639	8,134,095	10,358,529	9,757,723	9,241,983
Revenue Minus Expenditures	\$751,584	1,079,702	2,541,093	257,948	638,257

<sup>\*</sup> 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)	FY2023	FY2022	FY2021	FY2020	FY2019
Faculty	43	40	51	39	36
Staff	96	89	107	96	81
Total Staffing	139	129	158	135	117

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

(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 (includes IL Small Business Development Center and Center for Innovation)			
3.	Date	March 7, 2024			
4.	Director	Lynn Andersen Lindberg, 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 reported to the Office of the Chancellor during this period; Research Park is a 501(c)(3) university-related organization			
8.	Type Instructional Research Public Service	Activity (check all that apply)  X  X  X			
	. Gold oct vice				

<sup>\*</sup> 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, innovation, economic development, and community engagement activities within the University. This currently includes the Illinois Small Business Development Center at SIU, Center for Innovation, Illinois APEX Accelerator at SIU, Business Incubator Programs, Illinois Manufacturing Excellence Center, Office of Workforce Innovation and Research, Illinois Nurse Aide Testing program, Extended Reality Development Academy, Small Business Community Navigator Program, SBA Growth Accelerator and SBA SBIR Catalyst programs, Center for Delta Studies, Saluki Ventures student business incubator program, Saluki Innovation Lab, Saluki Entrepreneur Corps, and the University Innovation Fellows.

The SIU Research Park, a separate, 501(c)(3), 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, and 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; and
- \* 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

### **SIU Research Park Board of Directors**

Gary Williams, Board Chair (Manager, City of Carbondale)

Curtis Baird, Vice Chair (CEO Sure-Response)

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)

Sheryl Tucker (Provost and Vice Chancellor, SIU Carbondale)

Costas Tsatsoulis (Vice Chancellor for Research, SIU Carbondale)

Curt Jones (Founder, 40 Below Joe)

Angela Povolish (Partner, FMGR Law Firm)

Donald Gulley (CEO, Southern Illinois Power Cooperative)

# **SBDC Advisory Board**

Abby Ancell, St. Nicholas Brewing Company

Darren Berger, First Southern Bank

Eric Bridges, Illinois SBDC Network (IL DCEO)

Linda Flowers, Carbondale NAACP

Lynn Andersen Lindberg, SIU Research Park

William Lo, Carbondale Chamber of Commerce

Chastity Mays, Black Chamber of Commerce of Southern Illinois

Lee Messersmith, Cycle 1 Cycling Studio & Mayor, City of Benton

Amy Mills, 17th Street BBQ

Steven Mitchell, City of Carbondale

Karen Mullins, Marion Chamber of Commerce

Martin Parsons, Legal Advocacy

Christina Pisoni, State Farm Insurance

Melissa Ray Roach, SIU Entrepreneurship & Business Development

Vanessa Sneed, SIU Innovation & Economic Development

Jamie Storey, Greater Jefferson County Chamber

10.2 Number of Meetings (In This Year) Research Park – 3; SBDC - 1

### 11. Annual Performance

### 11.1 Performance Measures \*

Mea	sure	Target for Year	Results in Year
1.	Total clients (SBDC & APEX)		848
2.	Total business counseling hours (SBDC & APEX)		2,730
3.	Jobs created – technical assistance verified (SBDC & APEX)		80
4.	Jobs retained – technical assistance verified (SBDC & APEX)		94
5.	Business start-ups verified (SBDC)		42
6.	Loans secured for clients verified (SBDC)		\$4,510,814
7.	Amount of equity secured for clients verified (SBDC)		\$634,505
8.	Companies assisted (IMEC)		2,576
9.	New and retained sales per project (IMEC)		\$1,719,832
10.	Cost savings per project (IMEC)		\$340,145
11.	Jobs created and retained (IMEC)		5,271
12.	Aggregate impact (IMEC)		\$669,187,874
13.	Number of training events (SBDC & APEX)		29
14.	Number of training participants (SBDC & APEX)		185

<sup>\*</sup> 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)

- \* Maintained incubator tenancy at nearly 100%
- \* Maintained Research Park tenancy at 100%
- \* Continued to offer in-person business advising and training programs to emerging and expanding small businesses, supplemented by online and hybrid activities
- \* Served on the Board of SI Now, a Southern Illinois Success Initiative focused on making Southern Illinois a great place to live, work, and do business
- \* Continued to work with the Eurma C. Hayes Center in Carbondale to host a Community Technology Center for residents and others needing Broadband access
- \* Collaborated with Greater Egypt Regional Planning & Development Commission and other Southern Illinois organizations to offer small business navigator assistance to businesses affected by the COVID-19 pandemic
- \* Completed fourth year of operations of the APEX Accelerator, offering assistance in local, state, and federal government contracting opportunities including an event with SIU Carbondale and SIU Edwardsville procurement offices
- \* Worked with Regions Bank and the SIU Foundation to plan another \$10K business plan competition to emerging small businesses in the area
- \* Continued a new partnership with IDPH to develop and deliver support for the new Illinois Community Health Worker registry and exam credentials

- \*Continued to manage several activities, funded by the US Small Business
  Administration to bring together SIU Carbondale Murray State University and the
  University of Tennessee Martin to focus on improving SBIR/STTR awards in these rural
  academic communities
- \* Worked closely with the Illinois Innovation Network on a variety of projects and activities including the STEAM event at the Illinois State Fair and several specialized business assistance programs in Southern Illinois
- \* Served as co-project leader on the iFERM Hub, a \$13M+ food, entrepreneurship, research, and manufacturing facility and program
- \* Continued to offer proctored online tests to all applicants of Illinois' CNA exam certification
- \* Administered more than 16,000 certification exams across Illinois for certified nurse assistants
- \* Generated more than \$1 million in testing revenue for Nurse Aide Testing and Direct Support Personnel certification
- \* 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 Illinois Innovation Network iFERM Hub, and SI Now
- \* Served as the business development interface with the SIU System Office of Technology Management and Industry Relations
- \* Provided assistance to the Jackson County high school CEO program, promoting retention of youth entrepreneurs, through a variety of workshops and in-person activities
- \* Partnered with various organizations in Jackson County to develop a plan for Broadband access for the entire county
- \* Submitted a variety of collaborative proposals with the Illinois Innovation Network to improve the workforce opportunities and skills in Southern Illinois and beyond
- \* 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 management, and the creation of an overall culture of entrepreneurship and innovation on campus and in the region. Community engagement is a growing area of involvement throughout the southern 17 counties of Illinois. Removing barriers to entrepreneurship and innovation are at the heart of what OIED does day in and day out.

Ms. Lynn Andersen Lindberg worked closely with the SIU System Office on a team addressing community engagement. The group was charged with identifying ways that the three campuses can pool resources to address the needs of the larger service region. In addition, she helped create a team to develop and administer an economic/public impact study for the SIU System and individual campuses that took place in FY2023.

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. The unit is actively involved in activities that positively impact pillars of the SIU Carbondale strategic plan, especially in the pillars of Branding & Partnership and Research & Innovation. OIED continues to play an important role in business, innovation, economic development, and community engagement activities and projects 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, the University Innovation Fellows program, and the Saluki Entrepreneur Corps expanded their activities to include online workshops and podcasts. Other activities include support for youth STEM programs on campus and renewed support for high school entrepreneurship, both of which have integrated activities with the campus.
- Integrate activities within the SIU Research Park with the campus community— A regional business plan competition with Regions Bank and other Southern Illinois investors is underway along with entrepreneurial training for microbusinesses. Regional meetups throughout the region took SIU and Research Park services directly to communities and business owners throughout the Southern 17 counties.
- Optimize economic development services for the broader community—offered services to regional businesses interested in government contracting while continuing to update and customize business advising and workshops.

• Continue to be an economic development leader in Southern Illinois—started or completed in-depth research projects with the Southern Illinois Airport, SI Now, and BioLaunch; brought together University researchers, regional businesses, and other organizations to support the development of the iFERM Hub, a part of the Illinois Innovation Network and BioLaunch, a laboratory and business support program to support the iFERM Hub.

# 11.5 Evidence of Organizational Effectiveness

Nearly attained full-staffing levels during this fiscal year. New staff have brought in a variety of skillsets to complement those of existing staff. Despite being in training mode during much of the year, the staff overall continued to provide high quality, impactful services throughout the campus and region, including developing and administering new programs and working with the SIU System and the 13 public universities through the Illinois Innovation Network. Staff continue to serve on various boards, committees, and working groups and provide leadership in many of these activities. The organizational effectiveness of OIED (IL SBDC and Center for Innovation) and the Research Park are built upon the foundation of providing services and resources that are needed and have impact as evidenced through the metrics provided above.

12.	Institut	ional Assessment		
	12.1	Date of Last Review	None	
	12.2	Decision at Last Review	Center/Institute in Good Standing Center/Institute Flagged for Priority Review Center/Institute Suspended	
	12.3	Explanation		

# **RESOURCES: Office of Innovation & Economic Development**

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State Appropriations	\$289,320	\$282,029	\$276,499	\$379,370	\$386,651
Income Fund	571,895	239,941	205,473	196,470	91,197
Grants & Contracts	2,553,709	2,499,400	2,450,392	2,282,524	1,495,095
SBDC Generated Income	0	0	0	700	2,333
Other Course Revenue	109,350	129,741	95,500	117,250	0
Total Revenues	\$3,524,274	\$3,151,111	\$3,028,297	\$2,976,314	\$1,975,276
Expenditures					
Salaries/Wages & Benefits	\$2,186,727	\$2,047,285	\$2,007,142	\$2,133,956	\$1,704,085
Building Maintenance	76,989	27,270	15,043	24,898	13,465
Internal Roof Loan	0	0	0	0	0
Contractual	655,819	390,101	382,451	345,452	104,112
Supplies & Commodities	31,650	19,258	14,315	31,643	10,968
Miscellaneous	445,508	591,765	593,296	597,251	158,813
Total Expenditures	\$3,396,693	\$3,075,679	\$2,997,204	\$3,133,200	\$1,991,443
Revenue Minus Expenditures	\$	\$75,432	\$30,093	\$-156,886	\$-16,167

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

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
Faculty	0	0	0	0	0
Staff	23	18	21	21	22
Total Staffing	23	18	21	21	22

# **RESOURCES: SIU Research Park**

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
<b>D</b>					
Revenues					
State Appropriations	\$0	\$0	\$0	\$0	\$0
Income Fund	0	0	0	0	0
Grants & Contracts	248,563	253,291	202,549	255,295	252,036
Budget Allocation from SIU	96,892	94,702	82,518	98,556	99,233
Interest Income	559	9,108	1,746	1,815	1,139
Award Income	0	153,183	56,817	40,000	0
Total Revenues	\$346,014	\$510,284	\$343,630	\$395,702	\$352,406
Expenditures					
Budget Expended at SIU	\$96,892	\$94,702	\$82,518	\$98,556	\$99,233
Management and General	99,020	101,241	262,429	255,456	246,984
Depreciation	119,220	118,367	13,525	12,046	12,046
Total Expenditures	\$315,132	\$314,310	\$358,472	\$366,058	\$358,263
Revenue Minus Expenditures	\$17,151	\$195,974	\$-14,842	\$29,644	\$-5,855

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

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
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 1,2022 - June 30, 2023

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

1.	Reporting Institution	Southern Illinois University Carbondale		
2.	Center/Institute	Paul Simon Public Policy Institute		
3.	Date	03/06/2024		
4.	Director	John T. Shaw		
	4.1 Telephone	618-453-4003		
	4.2 E-mail	john.shaw@siu.edu		
	2	_joinnendin @joinnedd		
5.	Year Established	Approved 1996, opened 1997		
6.	Illinois State Statute	N/A		
	(if pertinent)			
7.	Reporting Unit	Office of the Chancellor		
٠.	responding office	Office of the officholor		
8.	Туре	Activity		
0.	Турс	(check all that apply)		
	Instructional	X		
	Research	X		
	Public Service	X		

<sup>\*</sup> 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 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.
- Analyzing public policy through wide-ranging discussions with leading experts and occasional papers
- 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.

# 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)

Austin Lane (ex officio member, SIU Chancellor)

Bill Norwood (member at-large)

Vicki Otten (member at-large)

Howard Peters (member at-large)

Matt Kupec (ex officio member, Vice Chancellor for Development & Alumni Relations)

Martin Simon (Simon family) - Chair of the Board

John Trasviña (member at-large)

Lance Trover (State Republican Party appointment)

Paula Wolff (member at-large)

David Yepsen (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 \*

Mea	sure	Target for Year	Results in Year
1.	The Simon Review (Published Papers)	3-4	4
2.	Public Events (in-person)	6	7
3.	Public Events (virtual)	24	19
4.	Internships Filled	8	3
5.	Graduate Fellowships funded/filled	2	0

<sup>\*</sup> 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 held over 30 virtual events in a wide variety of topics that were free and open to the public. These events included Understanding Our New World, Meet the Mayor, and Illinois Authors.

Seven in-person events that were open to the public were held in FY23.

We published four academic Simon Review papers. The total downloads of the past fiscal year was 4,238.

We placed three interns in Springfield for the spring 2023 legislative session, plus has one intern serving in the Jackson County States Attorney's Office.

We completed the search for the Institute's assistant director position in December 2022. The position had been vacant since March 2022.

Awarded the Jeanne Hurley Simon Memorial Scholarship, Barbara Brown Memorial Scholarship, Edwin D. Phillips Memorial Scholarship, Mike Lawrence Scholarship, and David Yepsen Director's Scholarship to SIU Students.

The Director, John T. Shaw; University Professor, Dr. Linda Baker; Visiting Professor, Dr. John S. Jackson; are frequently called on by local, state, and national media, both print and electronic, to comment on, and analyze a broad range of governmental, political, and public policy issues. In each of these cases, their affiliation with the Institute is prominently displayed.

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

The Paul Simon Public Policy Institute does not typically generate credit hours by offering formal classroom instruction. Although our Visiting Professor, John S. Jackson, taught two "Learning in Retirement" courses through the SIU Scheduling and Conference Services office.

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 principle 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.

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	Evidonco	of Cupport	for Center/	Inctituto	Ohioctivos
11.4	Evidence	or Support	ior center/	mstitute	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 attendance turnouts at our events. These audiences include students, faculty, and staff from SIU, area K-12 students and teachers, interested citizens and a range of media outlets.

Our *Simon Review* papers are widely downloaded. Through the Open SIU service at Morris Library, there have been thousands of downloads of these papers by users from across the nation and throughout the world since the series was started in 2004.

### 11.5 Evidence of Organizational Effectiveness

The Institute's virtual programs have attracted viewers from 28 countries, 44 states, and have been viewed about 70,000 times on YouTube.

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, and she teaches a colloquium course for the interns through the political science department.

John Shaw taught a "Restoring American Statesmanship" class for SIU's Honors Program. Dr. Linda Baker taught a health policy course to fourth year SIU School of Medicine students in spring 2023.

We also continue to place Demuzio interns in local government offices in Southern Illinois. These interns are supervised by Dr. John Jackson.

# 12. Institutional Assessment

12.1	Date of Last Review	FY22	
12.2	Decision at Last Review	Х	Center/Institute in Good Standing
			Center/Institute Flagged for Priority Review
			Center/Institute Suspended
12.3	Explanation	N/A	

# RESOURCES: (Paul Simon Public Policy Institute)

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
D					
Revenues					
State Appropriations	391,502	378,775	385,327	417,094	384,451
Income Fund					
Grants & Contracts					
Total Revenues	391,502	378,775	385,327	417,094	384,451
Expenditures*					
Salaries-Staff/Faculty	391,141	344,098	376,803	383,876	355,661
Travel					369
Commodities	361		249	1091	1996
Contractual Services		108	2037	8627	9446
Telecommunications			644	3094	2421
Total Expenditures	391,502	344,206	379,733	396,688	369,893
Revenue Minus Expenditures	0	34,569	5,594	20,406	14,558

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

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
Faculty	.77	.77	.77	1	1
Staff	4	3	4	4	2.75
Total Staffing	4.77	3.77	4.77	5	3.75

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

(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	February 14 <sup>th</sup> , 2024
4.	Director	Aziz Khan, MD
	4.1 Telephone	217-545-7969
	4.1 releptione	217-040-7303
	4.2 E-mail	akhan@siumed.edu
5.	Year Established	Academic Year 2000
6.	Illinois State Statute	N/A
	(if pertinent)	
7.	Reporting Unit	Southern Illinois University School of Medicine
8.	Туре	Activity
		(check all that apply)
	Instructional	X
	Research	X
	Public Service	X

<sup>\*</sup> 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, fellow and graduate student training in cancer/oncology care, 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, navigators, pharmacists 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 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, 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 at SIU 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 ( National Accreditation Program for Breast Centers or NAPBC), nationally accredited oncology services (Quality Oncology Practice Initiativ or QOPI), retail pharmacy, as well as 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.

# 9.3 Objectives

	- 19-11						
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. To develop within each working group 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 oral cancer treatment therapies through our retail pharmacy 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, and 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 Steering Committee: provides recommendations to the SCI Executive Director on matters concerning the goals and performance of the institute in accordance with its mission. FY2023 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
- Laurent Brard, MD, Professor, Obstetrics and Gynecology, SIU School of Medicine
- Don Torry, Associate Dean of Research, SIU School of Medicine
- Charles Callahan, MD, President and CEO, Springfield Memorial Health
- Kevin England, Senior VP and Chief Administrative Officer, Springfield Memorial Health
- John Horvat, Associate Provost of Finance and Administration, SIU School of Medicine
- Lisa Daniels, Director of Administrative Services, Simmons Cancer Institute
- Mary Haley-Emery, Healthcare Administrator II, Simmons Cancer Institute

<u>SCI Management Committee:</u> 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 FY2023, the members were:

- Lisa Daniels, Director of Administrative Services, Simmons Cancer Institute
- Mary Haley-Emery, Healthcare Administrator II, Simmons Cancer Institute
- Lori Barker, Senior Business Manager, Simmons Cancer Institute
- Aziz Khan, MD, Executive Director, Simmons Cancer Institute
- Kathy Robinson, Director of Clinical Research, Simmons Cancer Institute
- Kissindra Moore, Healthcare Administrator I, Simmons Cancer Institute

# 10.2 Number of Meetings (In This Year)

SCI Steering Committee – four (4) meetings in FY2023 (meetings are held quarterly)

SCI Management Committee – twenty-four (24) meetings in FY2023 (meetings are held semi-monthly)

#### 11. Annual Performance

### 11.1 Performance Measures \*

Mea	sure	Target for Year	Results in Year
1.	Total Patient Visits, Served by SCI – Total Patient Visits	23,000	21,697
2.	Total New Patients Served by SCI – Total New Patient Visits	400	344
3.	Total Infusion Patient Visits Treated by SCI	7300	6,506
4.	Clinical Trial Studies – Open Studies (NCORP Studies and SCI Clinical Trials)	125	129
5.	Clinical Trial Participation – NCORP studies and SCI Clinical Trials)	164	242
6.	Cancer-Related Research – Funded Discovery Science and Translational Projects and Non-Clinical Trial IRB regulated Studies.	20	12
7.	Published Articles – Number	50	36

Mea	sure	Target for Year	Results in Year
8. Patient/Community Education Programs – Attendees		2,500	2,830
9.	Outreach Programs/Screenings – Attendees	500	1,495

<sup>\*</sup> 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)

In FY2023, major accomplishments of the Simmons Cancer Institute included the following:

- SCI's retail pharmacy continues to grow.
- Hematology/Oncology Fellowship held its second graduation since the program began in 2019. SCI successfully recruited 2 additional fellows again in FY2023. The number of fellows being trained at SCI remains at 6.
- SCI held its sixth annual combined Summer Internship Presentation and Donor Appreciation
  event. Donors who contribute to Denim & Diamonds fund the paid summer internship for four
  college undergraduate students who are interested in cancer research. In FY23 four of the
  students were from the Springfield area and one was from Carbondale. Each intern gave a
  15minute presentation of their research project. The event was attended by faculty,
  researchers, intern mentors, family members and donors.
- The Side by Side exercise program was held both virtually and in person for cancer patients, survivors and caregivers. Side by Side is a grant funded exercise program that is offered regardless of where treatment is being received.
- SCI continued to participate in Mammogram Monday's outreach services that include Springfield, Lincoln, Taylorville and Hillsboro locations. Six hospitals participate in Mammogram Mondays.
- SCI offered colorectal cancer screenings and skin cancer screenings as well as participated in several community health fairs.
- SCI experienced a large increase in patient referrals and resumed services that were previously halted due to staffing shortages and COVID in FY21 and FY22 in the infusion unit.
- We were able to continue to hire clinical staff during a time of critical staff shortages nationwide. Including fully staffing the infusion unit.

These accomplishments were in addition to ongoing patient care, research, educational, and outreach efforts performed by SCI in FY2023.

# 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 FY2023, 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 four (4) Summer Internships to local college students to work with research mentors.
- Two (2) Team Science Grants Awarded.
- Partnered with the SIU Office of Population Science and Policy to further oncology-based population research. We hold monthly meetings to further develop population based grants and programs in cancer.
- Continued 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.

•

# 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. 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. 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				
12.2	Decision at Last Review	X	Center/Institute in Good Standing Center/Institute Flagged for Priority Review Center/Institute Suspended			
12.3	Explanation	N/A				

## **RESOURCES: Simmons Cancer Institute at SIU**

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State Appropriations <sup>1</sup>	2,049,770	2,017,860	1,987,845	1,973,519	\$1,955,817
Income Fund	0	0	0	0	0
Grants & Contracts	0	0	27,527	26,169	26,551
Grants & Contracts- Other <sup>2</sup>	398,497	353,675	199,670	248,675	294,457
Total Revenues	2,448,268	2,371,535	2,212,042	2,248,363	2,276,825
Expenditures					
Salaries <sup>3</sup>	1,304,961	1,218,060	1,263,717	1,377,990	\$1,314,119
Travel	74	0	0	473	2,292
Equipment	46,385	22,705	53,818	49,782	73,527
Commodities	5,594	5,713	4,519	8,100	14,853
Contractual Services <sup>4</sup>	158,259	2217,119	222,594	224,506	329,325
Telecommunications	24,743	28,127	35,106	30,364	23,473
Other <sup>5</sup>	21,833	17,983	2,864	15,503	16,270
Total Expenditures	1,561,849	1,509,707	1,582,618	1,706,718	\$1,773,859
Revenue Minus Expenditures	886,419	861,828	629,424	541,645	\$502,966

- 1. State Appropriations include program operating fund 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-Other includes revenue from SIU Foundation grant to SIU School of Medicine for SCI.
- 3. Contractual Services includes medical services provided to clinical trials patients, external consultant fees, and bond repayment.
- 4. Other includes indirect costs from clinical trial expenses.

Staffing (Full Time Equivalent) <sup>1</sup>	FY2023	FY2022	FY2021	FY2020	FY2019
Faculty	522	3.44	4.32	4.076	4.3825
Staff <sup>2</sup>	53	44.6	60.25	55	55
Total Staffing	58.22	48.04	64.57	59.076	59.3825

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

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

(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 4, 2024	
4.	Director	Harvey Henson	
	4.1 Telephone	618-453-4214	
	4.2 E-mail	henson@siu.edu	
	4.2 L Maii		
5.	Year Established	2019 (September 10, 2019)	
6.	Illinois State Statute	N/A	
	(if pertinent)		
7.	Reporting Unit	Office of the Vice Chancellor for Research (as of 03/01/2021)	
1.	Reporting Onit	Office of the vice Charicellor for Research (as of 03/01/2021)	
0	Turna	A activities	
8.	Type	Activity (check all that apply)	
	Instructional		
	Research	X	
	Public Service	X	

<sup>\*</sup> 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 diverse 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 organizes and sustains a diverse community of educators and researchers, collaboratively prepares the next generation of STEM educators and professionals, and advances STEM literacy at the local, state, and national levels through interdisciplinary and integrative strategies in research, education, and service.

### 9.3 Objectives and Goals

- 1. Obtain grant and contract funding to develop STEM education and research initiatives and to enhance existing programs at SIU.
- 2. Provide professional learning, curriculum development, workshops and support for K-12 teachers and administrators.
- 3. Investigate and promote teaching methodologies aligned with the Next Generation Science Standards and Common Core State Standards to increase STEM literacy.
- 4. Build alliances with local, state, and national stakeholders to propel the advancement of STEM instruction, learning, and research.
- 5. Establish partnerships aimed at enhancing evaluation and implementing assessment for STEM education.
- 6. Collaborate with the SIU community to provide students excellent preparation for STEM programs and professions.

# 10. Advisory Board

# 10.1 Advisory Board – Membership

### **Internal Board of Advisors**

Lingguo Bu, Professor, Math Education, School of Education
Justin McDaniel, Associate Professor, School of Human Sciences
Bruce DeRuntz, Professor, School of Applied Engineering and Technology
Steven Belletire, Professor Emeritus, School of Art and Design
Sue Rimmer, Professor Emerita, School of Earth Systems and Sustainability

## **External Board of Advisors**

Chris Midden, Science Teacher, Unity Point School, Carbondale, Illinois
Daniel Booth, Superintendent, Carbondale Community HS District 165, Carbondale, Illinois
TBD

Number of Meetings (In This Year) 1

TBD TBD

10.2

### 11. Annual Performance

### 11.1 Performance Measures \*

Measure		Target for Year	Results in Year
1.	Submit external grant and contract proposals	Submit 3-4 proposals	Exceeded target; 13 proposals were submitted, 7 were funded and 4 prior grants continued
2.	External Funding	\$1,000,000 in funding	Exceeded target; funding was \$8,060,506 in FY23
3.	Professional conference presentations by staff and faculty	5 national presentations and 5 regional presentations	Exceeded target; 6 national conference presentations 6 regional and local conference presentations
4.	Publications in peer-reviewed journals by staff and faculty	3-4 articles	Exceeded target; 8 published articles; 1 book chapter
5.	Coordinate new and existing outreach activities	Add 1 new program	Exceeded target; participated in STEAM nights at 2 local schools

Measure		Target for Year	Results in Year
6.	Create professional development	Expand existing	Completed; Item
	opportunities for K-12 educators	programs to impact	development for the
		100 additional teachers	Illinois Science
			Assessment (ISA) project
			included approximately
			125 teachers, and hand
			scoring the ISA involved
			200 teachers
7.	Obtain physical space for the STEM	Request and obtain	Space Allocation Request
	Education Research Center	space and request	from FY 2021 was
		addition space as	resubmitted on May 10,
		needed to	2022; some of request
		accommodate growth	accepted August 4, 2022;
		of the Center	Pulliam Hall room 212
			office suite was granted
8.	External and Internal Advisory	Add external board	Lost members on each
	Boards	members and meet at	board; one internal
		least once per year	member added, Internal
	had been defined as a superior of the same		board met this year

<sup>\*</sup> 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 FY 2022)

The STEM Education Research Center (SERC) submitted 13 grant and contract proposals in FY 2023 and 4 prior grants continued. Seven of these proposals were funded by state, federal, and private agencies. In total, SERC was awarded \$8,060,506 in new external grants and contract funding during FY 2023. Dr. Henson was Principal Investigator (PI) on 7 proposals of which 4 were funded. In addition, Henson serves as Co-PI on 3 collaborative proposals which were funded, and he is the evaluator on another funded proposal. Much of this funding was from the Illinois State Board of Education to continue developing, implementing, scoring and reporting the Illinois Science Assessment (ISA). Each March-April the ISA tests science learning for approximately 425,000 students in Illinois across in grades 5, 8, and 11.

The SERC co-sponsored and hosted the 45th annual Illinois Junior Science and Humanities Symposium (IJSHS) on March 1-2, 2023 (<a href="https://stemedresearch.siu.edu/ijshs/">https://stemedresearch.siu.edu/ijshs/</a>). The IJSHS allows high school students to present their original research at SIU and compete for an invite to the National competition. The IJSHS program promotes STEM research among 9-12 grade students across Illinois (excluding Cook County which has a separate symposium) and introduces STEM academic programs and career opportunities with support. Support and scholarships are provided by the Army, Navy and Air Force in partnership with the National Science Teaching Association, and SIU scholarships are awarded by the College of Agricultural, Life and Physical Sciences. Students who qualified for participation included 4 Illinois high schools; 24 students (10 presenters, 14 guests), and 8 teachers and parents. A delegation of 5 students were selected to represent Illinois at the National symposium.

Henson and colleagues in the School of Earth Systems & Sustainability were awarded an NSF STEM scholarships (S-STEM) grant totaling \$1,333,365 to support geoscience majors at SIU. This collaborative program, *Converging Earth Science and Sustainability Education and Experience to Prepare Next-Generation Geoscientists*, will provide 80 scholarships of up to \$10,000/year over the next five years. The new program initiated a recruit plan to create the first cohort for Fall 2023.

The SERC continued development of the American Mathematics Olympiad (AMO) in partnership with the Scholastic Trust Singapore, LLC, which is directed by SIU alumnus Mr. Henry Ong. Teams of faculty, staff and students in SERC developed hundreds of math problems designed to engage students in grades 2-12 around the world. The AMO competition was delivered for just the second year in Oct-Nov of 2021 and on a global scale. The AMO competition included 28,000 students from 42 countries including the US. About 1,100 students from local schools across southern Illinois competed and 15% of these local participants earned medals. Southern Illinois students received 20 gold medals; 80 silver medals; 64 bronze medals; and many students received honorable mentions.

The SERC and School of Education continued to partner with the CLEAN SoIL (Clean Southern Illinois) initiative, a non-profit organization with the goal to eliminate litter in southern Illinois through education, community action, and aggressive marketing. The founders and charter members of CLEAN SoIL are Dr. Glenn Poshard, a former U.S. Congressman and past President of SIU, and Les Winkler, Southern Illinoisan Outdoors writer. Dr. Harvey Henson was invited to serve on the Board of Directors as the Education Committee Co-Chair. CLEAN Soil provided two 25% graduate assistantships to SIU STEM education students supervised by Dr. Henson. The SERC staff and faculty worked with SOE Dean Cecil Smith and pre-service teacher candidates to develop new curriculum, learning resources, and placed the lessons and resources online for teachers to use (https://stemedresearch.siu.edu/clean-soil/).

The STEM Education Research Center participated in The Great ShakeOut and promoted earthquake awareness and safety to students on campus, local schools, and southern Illinois residents in Oct 2022. The SERC team directed by Harvey Henson continued the earthquake awareness and preparedness program and was featured in 1 TV interview and 2 radio interviews and 1 other news story.

- "SIU Professor Dr. Harvey Henson/ Interim Director, Stem Education Research Center"

  WJPF Morning Newswatch, May 19, 2023, <a href="https://www.wjpf.com/episode/newsradio-wjpf-interview-with-siu-professor-dr-harvey-henson-may-19th-2023/">https://www.wjpf.com/episode/newsradio-wjpf-interview-with-siu-professor-dr-harvey-henson-may-19th-2023/</a>
- "SIU Geology Professor Harvey Henson and CUSEC Executive Director Jim Wilkinson" WJPF Morning Newswatch, February 14, 2023, <a href="https://www.wjpf.com/episode/newsradio-wjpf-interview-with-harvey-henson-jim-wilkinson-february-14-2023/">https://www.wjpf.com/episode/newsradio-wjpf-interview-with-harvey-henson-jim-wilkinson-february-14-2023/</a>
- "SIU geologist talks about the earthquake in Turkey and Syria"

  KFVS-TV February 7, 2023, <a href="https://www.kfvs12.com/2023/02/08/siu-geologist-talks-about-earthquake-turkey-syria/">https://www.kfvs12.com/2023/02/08/siu-geologist-talks-about-earthquake-turkey-syria/</a>

Research conducted by undergraduate student Samantha Dennis, an award winning Zoology major supervised by Dr. Henson, was featured in a SIU news story.

"SIU zoology student uses radar to study crayfish's hidden homes"

SIU News, October 17, 2022, <a href="https://news.siu.edu/2022/10/101722-SIU-zoology-student-uses-radar-to-study-crayfishs-hidden-homes.php">https://news.siu.edu/2022/10/101722-SIU-zoology-student-uses-radar-to-study-crayfishs-hidden-homes.php</a>

11.3 Evidence of Support for IBHE "A Thriving Illinois," SIU System, and SIU Campus Strategic Planning

# **Support for SIU Campus Priorities**

"SIU embraces a unique tradition of access and opportunity, inclusive excellence, innovation in research and creativity, and outstanding teaching focused on nurturing student success. As a nationally ranked public research university and regional economic catalyst, we create and exchange knowledge to shape future leaders, improve our communities, and transform lives." (source: https://imagine2030.siu.edu/mission-statement.php)

The SIU strategic plan, Imagine 2030 (https://imagine2030.siu.edu/) includes *five strategic pillars* to guide the SIU campus community and our partners in identifying areas to prioritize in planning and funding. These five themes are:

**Student Success and Engagement:** What does student success mean to us, and how can we improve our metrics for success and engagement among the student body?

**Diversity, Equity and Inclusion:** How can we become a more inclusive and welcoming institution that values and respects individual differences?

**Branding and Partnerships:** How can we elevate awareness and regard for the SIU Carbondale brand, and build strong partnerships with other organizations in the region, state, and nation?

**Research and Innovation:** Where can we be even better in our research capabilities, and on what new innovations will SIU Carbondale lead the way?

**Sustainability:** In what ways can SIU Carbondale build on its legacy of sustainability and position itself as a leading voice for sustainability in institutions of higher learning?

The SERC goals are aligned to the objectives and key initiatives outlined as part of these five strategies of the new SIU strategic plan, **Imagine 2030** (https://imagine2030.siu.edu/). The following priorities are most aligned with the STEM Education Research Center (SERC) mission and goals as described in the following outcomes and contributions.

**Student Success and Engagement**: 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 SIU Mission and new strategic plan as well as the SERC goals outlined above. During FY 2023 the SERC provided financial support and work experiences in STEM research, service, outreach, and education for undergraduate student workers, undergraduate volunteers, and graduate students within the Center.

Faculty and staff collaborated to obtain external contracts and grants (see Performance Measures 1 & 2 in section 11.1, and Objective 1. in section 11.4) that provided

undergraduate student scholarships and support through research and professional development projects such as the NSF S-STEM program. SERC colleagues continued to seek additional external funding for other STEM scholarships and internships in academic units collaborating with SERC. These grant-funded opportunities provided professional development, hands-on learning, and career readiness, and essential financial support for first-generation and disadvantaged students. Support from SERC programs and projects increased recruitment, retention, graduation, and career success of STEM students across four colleges at SIU.

**Research and Innovation**: In FY 2023, SERC secured an impressive total of \$8,060,506 in external funding for STEM education service, training, and research. These funds, alongside indirect cost recovery resources, were strategically allocated to propel the research mission forward, cover operational expenses, and deliver services to SIU, Illinois schools, and community partners. Indirect cost recovery funds from grants and contracts were allocated to support student recruitment, retention, and degree completion, as well as to furnish faculty, staff, and students with resources for research supplies, equipment, and travel.

SERC collaborated closely with SIU faculty and instructors to enhance teaching methodologies, procured instructional materials, and provided support for science content and methods courses tailored for pre-service teachers. Additionally, summer internships and undergraduate research experiences were offered to undergraduates, providing valuable work exposure during their college tenure.

Looking ahead, SERC aims to establish a SIU Faculty Associates program, or possibly a Faculty Fellowship initiative, geared towards faculty professional development. This program intends to offer faculty release time for collaborative efforts in grants/contract proposal development and the enhancement of undergraduate education at SIU. This collaborative effort may involve developing and testing innovative instructional approaches, with the potential to bolster student retention rates.

**Diversity, Equity and Inclusion**: To fulfill the SERC mission and realize our objectives of advancing STEM literacy, embracing diverse and inclusive approaches is indispensable. The complexities of our world demand integrative strategies that incorporate diverse skill sets and perspectives across the human spectrum. Understanding and navigating our intricate reality necessitate the inclusion of varied viewpoints and experiences. In essence, fostering diversity and inclusivity not only enriches our understanding of STEM subjects but also enhances our ability to address complex challenges effectively. By valuing diverse perspectives and skill sets, we can better cultivate innovative solutions and broaden participation in STEM fields.

Therefore, at SERC, we are committed to promoting diversity and inclusivity as fundamental principles in our pursuit of advancing STEM literacy and driving positive change in our society. Further, SERC embodies a collaborative spirit among faculty, staff, and students, dedicated to advancing STEM learning inclusively and strategically for all individuals. Our collaboration is built on principles of diversity, equity, and inclusion, where intentional efforts are made to recruit talent from diverse backgrounds, including those from underserved groups. At every operational level, our staffing reflects diversity, encompassing minorities, women, and individuals with disabilities.

We prioritize diversity in leadership within our partnerships and collaborations, aiming for representation that mirrors our commitment to inclusivity. Through collaborative efforts, SERC actively supports faculty in developing interdisciplinary research projects targeting underrepresented groups. We cultivate partnerships with private, state, and federal agencies, prioritizing funding opportunities that promote diverse participation and foster inclusion and equity.

SERC faculty and staff have taken lead roles as Principal Investigators or Co-Principal Investigators on numerous successful contract and grant proposals, many of which have been funded (refer to section 11.4 for details). We serve as partners and mentors to STEM faculty seeking funding from various agencies, enhancing the competitiveness of their proposals. Our collaborative efforts extend to presenting and publishing research alongside faculty, staff, and students. Moreover, the Center facilitates networking opportunities between faculty and local education agencies, youth organizations, community partners, and the broader public, fostering service and community engagement.

In FY 2023, SERC's support, training, and mentorship of diverse graduate and undergraduate students were notably impactful, reflecting our commitment to nurturing a diverse talent pool in STEM fields.

**Branding and Partnerships**: Throughout the FY 2023 reporting period, the SERC maintained its momentum in fostering both new and established partnerships across various sectors, including campus leadership, external funding agencies, and influential alumni networks. By strategically leveraging these connections, we successfully forged robust collaborations with key stakeholders at the regional, state, national, and international levels.

These partnerships played a pivotal role in our efforts to enhance student recruitment and success at SIU, aligning closely with the overarching goals of both the University and the SERC. Through these strategic alliances, we were able to tap into valuable resources, expertise, and networks that facilitated the achievement of our shared objectives.

Moving forward, the SERC remains committed to nurturing and expanding these partnerships as integral components of our mission to advance STEM education and research. By continuing to cultivate meaningful relationships with our stakeholders, we aim to further strengthen our impact and contribute positively to the academic and research landscape at SIU and beyond.

The SERC remains dedicated to its role as an outreach provider for PreK-12 schools and a collaborative partner for teachers and administrators. In FY 2023, through our partnership with the Illinois State Board of Education (ISBE) on the Illinois Science Assessment (ISA), we provided professional and financial support to over 400 teachers statewide. Our faculty and staff, engaged within the SERC, continued to cultivate partnerships with local education agencies and community organizations. Our undergraduate student ambassadors and graduate students, under faculty and staff supervision, actively participated in these service activities. They contributed to community outreach during new student recruitment events, campus tours, off-campus showcases, conferences, and STEM nights at schools.

Beyond developing and coordinating outreach programs for the regional community, the Center facilitated teacher professional development through workshops and meetings while managing equipment loans via the Educational Resource Area. Looking forward, our long-term objectives include expanding the educational loaner program for regional

educators and enhancing the range of educational materials available through the Educational Resource Area. However, achieving these goals will require support, adequate space, and facilities. SERC remains committed to advancing STEM education and outreach efforts, but additional resources will be essential to realizing our aspirations.

Once again this year, SERC collaborated with Mr. Henry Ong, President of Scholastic Trust Singapore, LLC (STS), the SIU Center for International Education (CIE), and the SIU Foundation to advance the STEM Olympiad Initiative. This partnership, particularly with STS, aims to expand STEM competitions across 42 countries globally, fostering increased student learning and engagement in STEM fields. In FY 2023, Mr. Ong and STS generously contributed \$30,000 to support SERC to develop and execute the 2<sup>nd</sup> annual American Mathematics Olympiad (AMO) in Oct-Nov 2022. The event attracted 28,000 competitors worldwide, spanning grades 2-12. Notably, approximately 1,100 students from Illinois participated in the AMO, with 164 students achieving medals (20 gold, 80 silver, and 64 bronze), while others received honorable mentions.

STS has further committed to a substantial scholarship donation to SIU, supporting the establishment of a new international scholars program. Through this collaboration, SIU is being actively promoted to students, parents, teachers, and leaders both regionally and globally. Additionally, support generated from this partnership serves to benefit regional students and schools by eliminating participant costs, providing student engagement, teacher professional development, and creating new scholarship opportunities for international students to enroll at SIU. Indeed, this international partnership exemplifies SERC's unwavering commitment to advancing STEM education while championing principles of equity and diversity. Through collaborative efforts and strategic initiatives, SERC continues to make significant strides towards fostering excellence and inclusivity within the academic community at SIU and beyond.

**Sustainability:** During FY 2023, SERC played a pivotal role in advancing the university's sustainability objectives through various initiatives and endeavors

For example, CLEAN SoIL, a non-profit organization dedicated to eradicating litter in southern Illinois through education, community action, and proactive marketing, was founded by Dr. Glenn Poshard, former President of SIU and ex-U.S. Congressman, alongside Les Winkler, a renowned Southern Illinoisan Outdoors writer. In an effort to bolster their mission, CLEAN SoIL invited SIU to join forces in their endeavor to purify southern Illinois. Responding to the call, SERC, the School of Education (SOE), and the Touch of Nature Outdoor Education Center (TNOEC) collaborated closely.

Dr. Henson, spearheaded the effort and was invited to serve as the Education Committee Co-Chair on the board of directors for CLEAN SolL. Additionally, CLEAN SolL extended support to SIU through a graduate assistantship, aiding in the pursuit of educational objectives. Under Dr. Henson's supervision, the graduate student and the curriculum development team have been actively engaged in curriculum development. Moreover, SERC staff and faculty, in collaboration with Dean Cecil Smith, SOE faculty, and preservice teacher candidates, are diligently crafting new curriculum materials, learning resources, and a dedicated website (<a href="https://stemedresearch.siu.edu/clean-soil/">https://stemedresearch.siu.edu/clean-soil/</a>). This collaborative effort underscores the commitment of all stakeholders to combat litter and promote environmental stewardship in southern Illinois.

A second collaborative effort by an interdisciplinary team of scientists, educators, and administrators aimed to develop an innovative earth science and sustainability education and scholarship program in FY 2023. The team submitted an S-STEM grant proposal titled "Converging Earth Science and Sustainability Education and Experience to Prepare Next-Generation Geoscientists." After two attempts, the proposal successfully secured funding from the NSF totaling \$1.33 million, marking the commencement of the project in January 2023. (For more details, refer to <a href="https://news.siu.edu/2022/08/082422-SIU-research-team-wins-1.33M-NSF-grant-to-train-sustainability-focused-geoscientists.php">https://news.siu.edu/2022/08/082422-SIU-research-team-wins-1.33M-NSF-grant-to-train-sustainability-focused-geoscientists.php</a>). This groundbreaking initiative is designed to recruit transfer students and offer 80 scholarships of up to \$10,000 per year. The leadership team comprises Dr. Ruopu Li (PI), Dr. Harvey Henson (SERC Interim Director), Dr. Leslie Durham, and Dr. Justin Schoof (Director), all esteemed faculty members of the School of Earth Systems & Sustainability, along with Wendell Williams, Associate Vice Chancellor for Enrollment Management.

# Support for IBHE "A Thriving Illinois" Strategic Plan Goals and Core Principals Students are our priority.

The SERC is actively addressing the STEM workforce pipeline in Illinois by offering instructional support aimed at enhancing student outcomes across various educational levels, including PreK-12, undergraduate, and graduate programs. Through established partnerships with numerous PreK-12 teachers and administrators in public schools, as well as fruitful collaborations with STEM faculty and staff at SIU, SERC has fostered highly successful, funded, and productive projects.

Moreover, SERC has spearheaded a range of regional, state, national, and international projects and programs aimed at bolstering STEM education and literacy. These collaborative efforts are instrumental in enhancing academic preparation and fostering motivation in STEM disciplines, facilitating a smooth transition for Illinois students from high school to higher education and eventual careers in STEM fields. Further, SERC diligently provides student work, scholarships, waivers, and graduate assistantships to bolster students' academic achievements.

One notable scholarship initiative, Pathways to STEM Leadership, spearheaded by PI Dr. Bruce DeRuntz and Co-PI Dr. Harvey Henson, continued to cultivate STEM leaders throughout FY 2023. This scholarship program, supported by the NSF S-STEM program, caters to academically gifted, low-income, and underrepresented students pursuing STEM majors. The scholarship addresses students' unmet financial needs, offering support of up to \$10,000 per year. Participation in the leadership program reflects the diversity of the university population. Notably, student success metrics for the STEM leadership program are remarkable, boasting a 96% graduation rate and a 94% placement rate in STEM careers. The Pathways to STEM Leadership initiative, through its comprehensive training and co-curricular activities, is instrumental in nurturing the next generation of critical STEM leaders.

Another pivotal initiative is the Illinois Science Assessment (ISA) partnership. The ISA is part of the federal government mandate administered by the Illinois State Board of Education (ISBE) to evaluate science learning among students in grades 5, 8, and 11. Since March 2017, SIU SERC has been the principal partner to ISBE for executing this assessment through a substantial multi-year contract. The partnership has not only achieved student assessment

objectives but has also delivered impressive results aligned with the Illinois Learning Standards for Science, based on the Next Generation Science Standards (NGSS).

The SIU assessment team at SIU, comprised of education and STEM experts, has developed an equitable and inclusive large-scale summative assessment that not only meets assessment goals but also promotes enhanced STEM teaching and learning statewide. We successfully partnered with hundreds of Illinois teacher since 2017. Teachers overwhelmingly report that standards training, professional development, and financial support provided by SIU SERC in partnership with the ISBE has transformed their classroom teaching and increased student success as well. Through these educator-focused and student-centered initiatives, SERC steadfastly upholds its commitment to advancing STEM education and ensuring the success of students not only in Illinois but also beyond its borders.

#### Equity drives our system.

As a dedicated service unit, SERC is deeply committed to fostering partnerships and initiatives that offer support and opportunities to a diverse range of learners and educators. This commitment is manifested through various avenues such as scholarships, co-curricular experiences, internships, graduate assistantships, student employment, teacher fellowships, independent contractor opportunities, and tuition waivers. SERC recognizes the significant financial obstacles faced by students, parents, teachers, and administrators in pursuing and achieving academic and scholarly success. This challenge is particularly pronounced among underserved groups including students of color, first-generation college students, lowincome students, adult learners, rural students, veterans, and others.

To address these challenges, SERC collaborators and researchers are diligently working to secure support funding through external grant and contract awards, as well as through partnerships with regional community organizations. Notably, SERC's interim director, Dr. Harvey Henson, served as a Co-PI on 2 NSF S-STEM (Scholarships for STEM students) grants and led other grants that are currently funded or pending approval (refer to section 11.4 for details). These grants represent a substantial investment, providing millions of dollars to support student scholarships, PreK-12 teacher fellowships, waivers, supplemental salaries, and enhancements to academic programs across the region and state. Furthermore, the recent partnership with STS in Singapore is expanding opportunities for STEM engagement, promoting scholastic equity, and offering scholarship opportunities to students and families globally.

## Higher education is a public good that enriches life.

The SERC is dedicated to supporting evidence-based, hands-on education and professional development initiatives for both current and aspiring science and math educators. Collaborating closely with the School of Education (SOE) and the College of Agricultural, Life, and Physical Sciences (CALPS) at SIU, SERC facilitates partnerships that enhance teacher training and development. The SERC provides services to the community, supports and participates in multiple events and activities on and off campus, strives to enhance student learning and success, and generates innovation and new knowledge through research.

For example, the Center offers financial assistance to various initiatives including the Regional and State Science Fair, the Science in the South regional teacher conference, the Teen Science Café, the Illinois Junior Science and Humanities Symposium, Expanding Your

Horizons, and Registered Student Organizations. Additionally, the Center provides support in the form of student scholarships, tuition waivers, supplemental teacher salaries, and research grants for undergraduate and graduate students. Throughout the year, SERC's faculty, staff, and students leverage their expertise to make meaningful contributions to the community, local schools, and civic partners, enriching the educational landscape and fostering engagement in STEM disciplines.

As noted earlier, the SERC, School of Education (SOE) and Touch of Nature Outdoor Education Center (TNOEC) joined efforts to support the CLEAN SoIL (Clean Southern Illinois) initiative. CLEAN SoIL is a non-profit organization striving to eliminate litter in southern Illinois through education, community action, and aggressive marketing. CLEAN SoIL founders are Dr. Glenn Poshard, past President of SIU and former U.S. Congressman, and Les Winkler, Southern Illinoisan Outdoors writer. CLEAN Soil is providing support to SIU in the form of a graduate assistantship. SERC staff and faculty are working with Dean Cecil Smith, faculty, and pre-service teacher candidates in the SOE to develop new curriculum, learning resources, and a website (https://stemedresearch.siu.edu/clean-soil/). Dr. Henson serves on the board as the Education Committee Co-Chair, supervises graduate students, and leads the curriculum development team.

In addition to its partnerships with SOE and CALPS, SERC faculty and staff actively engage with colleagues across various departments at SIU. In FY 2023, collaboration extended to include the College of Health and Human Sciences, College of Engineering, and the Center for International Education (CIE). Furthermore, plans are underway to establish additional collaborations with colleagues in other STEM schools and colleges. These efforts aim to diversify student enrollment and create opportunities to cultivate a highly qualified workforce of STEM educators and professionals, not only in Illinois but also beyond.

#### Our diverse institutions work in concert.

Once again in FY 2023, SERC spearheaded the ISA project in collaboration with the Illinois State Board of Education, aiming to recruit, train, and engage nearly 400 STEM educators and professionals across Illinois schools as independent contractors. Educational and STEM experts from seven esteemed higher education institutions, including Lewis University, University of Illinois Chicago, Illinois State University, Southern Illinois University Edwardsville, McKendree University, University of Illinois Champaign-Urbana, and Southern Illinois University Carbondale, collaborated on the ISA project during FY 2021 and FY 2022, focusing on developing large-scale science assessment items.

SERC continued its pursuit of partnerships aimed at fostering student success in STEM fields, submitting proposals to secure funding for new research initiatives and discoveries that contribute to the growth and vitality of local, regional, and state economies. Collaborating with SIUE and eight other universities and community colleges in Illinois, SIU SERC expanded the FLIP classroom teaching model to enhance STEM learning experiences.

STEM faculty and staff at SIU secured a significant amount of new revenue, reflecting the success of collaborative efforts across the SIU campus and beyond in obtaining competitive external funding for research, service, and educational program development (refer to section 11.4 for details). These funds played a crucial role in supporting faculty, staff, and students to work collaboratively towards achieving the goals of SERC, SIU, and the state of Illinois.

#### 11.4 Evidence of Support for Center/Institute Objectives

**Objective 1.** Obtain grant and contract funding to develop STEM education and research initiatives and to enhance existing programs at SIU.

The SERC faculty and staff collaborated to obtain external funding to advance STEM education and research at SIU. Center faculty and staff served as principal investigator (PI) or Co-PI on 13 grant proposals submitted in FY 2023. Seven of these proposals totaling \$8,060,506 were awarded as noted below and were implemented in FY 2023.

#### **Grant Proposals Funded During FY 2023**

- 1. "Illinois Science Assessment Partnership Item Development & Scoring"
  PI: Harvey Henson Agency: ISBE Dates: 07/01/22 09/30/23 (\$6,033,245)
- "American Mathematics Olympiad (AMO) Program and Item Development"
   PI: Harvey Henson (SIU Foundation)
   Agency: Scholastic Trust Singapore (Donation) Dates: 07/01/21 06/30/22 (\$30,000)
- 3. "Illinois Junior Science and Humanities Symposium"
  PI: Harvey Henson Co-PIs: Duane Lickteig & Angela Box
  Agency: National Science Teaching Association Dates: 10/01/22 06/30/23 (\$17,665)
- "Collaborative Research: CyberTraining: Pilot: Research Workforce Development for Deep Learning Systems in Advanced GPU Cyberinfrastructure"
   PI: Ruopu Li Co-PI: Iraklis Anagnostopoulos Evaluator: Harvey Henson Agency: NSF Dates: 12/01/2022 – 11/30/2024 (\$63,783)
- 5. "Converging Earth Science and Sustainability Education and Experience to Prepare Next-Generation Geoscientists"
  PI: Ruopu Li Co-PIs: Harvey Henson, Leslie Durham, Justin Schoof & Wendell Williams
  Agency: NSF S-STEM Dates: 1/01/23 12/31/27 (\$1,333,365)
- 6. "Einstein's Incredible Universe: A Media Project Engaging Girls in Astrophysics during the 2024 Total Solar Eclipse"
  PI: Harvey Henson Co-PI: Robert Baer Agency: Cosmic Pictures Distribution, LLC NSF AISL Subaward Dates: 01/01/23 9/30/24 (\$268,008)
- 7. "Citizen Science for 2024: The Dynamic Eclipse Broadcast Initiative" PI Robert Baer Co-Is: Harvey Henson, Corinne Brevik, Matt Penn Heidi Bjerke, David Gerdes Agency: NASA Dates: 4/25/2023 – 4/24/2025 (\$314,440)

## **Grant Proposals Submitted During FY 2023 and Not Funded**

"Scholastic Olympiad Initiative - STS and SERC Partnership"
 PI: Harvey Henson

Agency: Scholastic Trust Singapore LTD. Dates: 07/01/2022 – 06/30/2023 (\$54,000)

- "KIDS Early Childhood Coaching and Training Project 23-586SBE-FINAN-B-31264"
   PI: Harvey Henson Co-PIs: Stacy Thompson, Justin McDaniel & Daniel Brown
   Agency: Illinois State Board of Education Dates: 9/1/22 6/30/25 (\$2,597,102
- 3. "Rural Veteran Personality and the Interference Preservation Hypothesis" PI: Justin McDaniel Co-PIs: Harvey Henson & Yvonne Hunter-Johnson Agency: NSF BCSER Dates: 11/14/22 11/13/25 (\$264,441)
- 4. "Dynamic Eclipse Broadcast Initiative for 2023 & 2024 North American Solar Eclipses" PI Robert Baer Co-Is: Harvey Henson, Corinne Brevik, Heidi Bjerke, David Gerdes, Matt Penn, Mayra Tovar, Julia Kamenetzky, Jennifer Birriel, Gary Johns & Debi Choudhary Agency: NASA Dates: 2/01/2023 7/31/2024 (\$474,936)
- 5. "Rural Illinois Naval Pipeline" PI: Justin McDaniel Co-PIs: Harvey Henson, David Gilbert, Sean Quisenberry & Paul Frazier Agency: DOD (Office Naval Research) Dates: 3/1/23 - 2/29/24 (\$100,000)
- "Collaborative Research: Developing STEM Education Reform Leaders through a
   Multidisciplinary and Cross-Institutional Community of Transformation"
   PI: Henson, Harvey Co-PIs: Kevin Smith, Lori Armstrong, Senetta Bancroft, Mark Byrd
   Agency: NSF IUSE Dates: 5/16/2023 5/15/2027 (\$380,647)

#### **Grant Proposals (Funded) Continuing During FY 2023**

- 1. "Special Education Behavior Assessment Training Project"
  PI: Harvey Henson Co-PIs: Daniel Brown, Deborah Bruns, Louise Yoho & Justin McDaniel
  Agency: Illinois State Board of Education Dates: 6/08/22 6/30/24 (\$5,841,527)
- 2. "Reducing, Interrupting, & Preventing Violence in Rural Illinois Delta Region: Phase 1" PI: Tammy Kochel Co-PIs: Justin McDaniel, Harvey Henson, Sarah Buila, Paul Brinker & Matthew West
  - Agency: Carbondale City Council Dates: 4/01/22 8/15/22 (\$64,391)
- 3. "Illinois Junior Science and Humanities Symposium"
  PI: Harvey Henson Co-PIs: Duane Lickteig & Angela Box
  Agency: National Science Teaching Association Dates: 10/01/21 07/30/22 (\$14,110)
- 4. "Pathways to STEM Leadership Careers"
   PI: Bruce DeRuntz Co-PIs: Harvey Henson, Julie Dunston & Justin McDaniel
   Agency: NSF Scholarships in STEM Dates: 09/15/16 08/31/23 (\$999,994)

*Direct External Support:* The university and the SERC received external support for funded programs through contracts and grants as listed above.

*Indirect Cost Recovery Funds*: These contracts and grants listed above generated indirect cost recovery funds, which were used by the Center to cover operational costs and to support STEM faculty, staff, students, and other programs on and off campus.

*Examples:* Faculty collaborators received comprehensive support from SERC grant funding, including assistance with conference travel, student assistantships and waivers, research

support, and summer salary, which benefited their departments and academic programs. For instance, SERC allocated resources for the procurement of 3D printers and materials to bolster research, teaching, outreach, and service initiatives within the mathematics education program. This investment facilitated the advancement of innovative projects and contributed to the overall enhancement of educational and research endeavors within the department. Academic units (departments, schools and colleges) also received a share of the indirect costs from SERC grants and contracts.

Harvey Henson, in his capacity as the SERC interim director, served as Principal Investigator (PI) for the Illinois Junior Science and Humanities Symposium (IJSHS), along with Co-PIs Angela Box and Duane Lickteig. The SERC extended support by providing matching funds, while its staff contributed in-kind efforts to bolster the program. Additionally, the SERC facilitated a teacher cash award and offered assistance for participants' travel to the National competition. The IJSHS program, a tri-service initiative sponsored by the U.S. Army, Navy, and Air Force, is coordinated through the National Science Teaching Association. Its core objectives include fostering original STEM research and learning at the high school level, acknowledging exceptional student accomplishments, and granting scholarships. Furthermore, the SERC played a pivotal role in recruitment, organization, and adjudication 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. SERC provides small funds for multiple recognition awards to student projects that exemplify STEM innovation or creativity to encourage interest in STEM. The SERC staff also participated in *Expanding Your Horizons* conference, which provides hands-on enrichment for girls in grades five through nine. SERC staff collaborated with pre-service STEM education students who served as student ambassadors at multiple SIU *Open House, SIU Day,* and other new student recruitment events. SERC provided training, meals and SIU polo shirts for these ambassadors. SERC provided preservice 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 CLEAN SoIL, *Project Wild,* Digital Sandbox and 3D mapping.

Both graduate and undergraduate students benefited from teacher professional development workshops, engaged in STEM research endeavors, and gained exposure through emerging programs such as the Illinois Science Assessment (ISA) Partnership. Notably, SERC secured a substantial \$13 million, five-year contract with the Illinois State Board of Education (ISBE) in 2018 to spearhead the ISA collaboration. This collaboration expanded significantly in FY 2022, encompassing state-wide assessment item development involving experts from six universities besides SIU Carbondale. During FY 2023 pre-service teachers and graduate students actively contributed to project planning and development, participating within a network comprising nearly 400 in-service teacher partners and leaders collaborating with the ISBE initiative.

The Pathways to STEM Leadership project, supported by the National Science Foundation (NSF), aims to enhance the Leadership Development Program overseen by Dr. Bruce DeRuntz. This initiative provides scholarships to financially disadvantaged and underrepresented STEM majors. The program, which engages STEM faculty and scholars from various disciplines across SIU (Southern Illinois University), emphasizes the cultivation of STEM leaders through peer mentoring and co-curricular activities. Within this framework, the SERC employs select students and offers assistance to sponsor projects led by student leadership teams. A collaborative proposal, led by Dr. Bruce DeRuntz, was developed to explore the implementation of an

expanded leadership development curriculum. This proposal, submitted to NSF, involved multiple institutions and spanned several years. Unfortunately, the proposal did not secure funding, though there is consideration for future collaboration and proposal submission.

**Objective 2.** Provide professional learning, curriculum development, workshops and support for *K-12* teachers and administrators.

SERC supported and participated in Science in the South, a premier professional development conference tailored for educators from southern Illinois. Its core mission is to augment teaching skills, deepen content knowledge, and facilitate networking opportunities among educators to share innovative STEM teaching strategies. The conference, which typically draws an average attendance of around 200 participants, provides a diverse array of workshops led by peers, STEM faculty, administrators, scientists, and other subject matter experts. SERC staff played integral roles within the Science in the South steering committee, spearheading efforts to organize and help host the conference. The event took place on the scenic grounds of the SIU campus at the Touch of Nature Outdoor Education Center in April 2023. By collaborating closely with other stakeholders, SERC ensured that Science in the South offered a rich tapestry of relevant, informative, and stimulating workshops, fostering an environment conducive to professional growth and collaborative exchange among educators passionate about STEM education.

In FY 2023 nearly 200 teachers from across Illinois and higher education researchers and experts assisted in the further development of the Illinois Science Assessment (ISA) as mentioned earlier. This significant undertaking offered participating teachers valuable opportunities for professional growth, fostering the establishment of collaborative relationships, expanding content knowledge, enhancing standards expertise, exchanging teaching insights, and assessing their instructional approaches aligned with the Illinois Learning Standards in Science. The ISA partnership extended beyond professional development to foster professional buy-in, empowering teachers to shape the large-scale summative science assessment process. Through their involvement, teachers played a pivotal role in ensuring that rigorous measurement and psychometric practices were upheld in the development of ISA test items. They gained insights into acceptable rates of item difficulty and item discrimination, thereby enhancing their understanding of sound assessment practices.

Furthermore, teachers and item developers alike delved into the characteristics of effective item development and the critical importance of alignment with NGSS content standards during the ISA partnership. SERC, ISBE, and the National Science Teaching Association (NSTA) collaborated to host workshops on ISA item development. These workshops provided valuable opportunities for educators and developers to exchange ideas, refine methodologies, and ensure alignment with best practices in science education assessment. Through these collaborative efforts, the ISA partnership facilitated the continuous improvement of science assessment processes while empowering educators to actively contribute to the enhancement of educational standards and practices.

**Objective 3.** Investigate and promote teaching methodologies aligned with the Next Generation Science Standards and Common Core State Standards to increase STEM literacy.

During FY 2023, several SERC graduate students collaborated with SERC faculty and affiliates to contribute research articles to esteemed journals, including *Critical Issues in Teacher Education*.

One area of research concentrated on STEM teacher development within pre-service education, particularly examining the evolution of pre-service elementary teachers' conceptual grasp of scientific literacy. Furthermore, SERC faculty and graduate students undertook investigations into the Impact of Scoring the Illinois Science Assessment on K-12 Science Teachers' Instructional Design. By analyzing data collected from ISA scoring participants, the study aimed to delineate how their experiences influenced science instruction and engagement within K-12 classrooms.

Research findings from these endeavors were also disseminated through presentations at both national and regional conferences, enriching discourse within the educational community. Currently, SERC staff are in the planning stages of a groundbreaking study involving select ISA participants. This initiative aims to gather additional data, enabling a deeper understanding of teacher experiences and instructional design nuances, thereby facilitating the development of targeted interventions to enhance student achievement and bolster teacher knowledge and pedagogy. Grant and contract-funded projects were initiated by SERC to assist educators in comprehending the Next Generation Science Standards (NGSS) and Common Core State Standards. SERC offered resources and opportunities aimed at enhancing understanding and alignment with these standards. SERC faculty crafted research-based learning experiences within grant programs, supported educators in crafting standards-based lessons and assessments, and provided guidance and mentorship in action research development, writing, and presentation.

For instance, SERC personnel developed training sessions for educators involved as hand-scorers as part of the ongoing ISA Partnership. These workshops were shaped by feedback from educators through surveys developed by SERC, as well as participant performance data and identified gaps in NGSS content and Science and Engineering practices. These practices include Engaging in Argument from Evidence, Analyzing and Interpreting Data, Constructing Explanations, Developing and Using Models, and Obtaining, Evaluating, and Communicating Information. Notably, SERC staff demonstrated the Scientific Explanation Framework model and pertinent disciplinary core ideas. Through participation in the ISA Partnership, educators witnessed improved understanding of NGSS content and enhanced their instructional practice.

**Objective 4.** Build alliances with local, state, and national stakeholders to propel the advancement of STEM instruction, learning, and research

Faculty and staff at SERC continued to foster partnerships with the Regional Offices of Education (ROE) and school districts within the SIU service area and beyond. These partnerships facilitated avenues for service and have been instrumental in securing grants and targeting professional development initiatives through workshops and STEM education programs, as discussed in various sections of this report. As discussed previously in sections 11.2 and 11.3, and further outlined in Objective 5, the SERC served as the primary partner of the Illinois State Board of Education (ISBE) for the Illinois Science Assessment. Subsequently, the SERC has collaborated on subaward proposals with STEM faculty members from seven Illinois universities. Furthermore, the National Science Teaching Association (NSTA) once again collaborated with the SERC to review assessment items and offer workshops, training sessions, and other forms of professional development for educators.

SERC researchers and earthquake experts, under the leadership of Interim Director Henson, spearheaded community outreach and education efforts focused on natural disaster mitigation

and preparedness in the Midwest region. This initiative included an ongoing earthquake awareness and preparedness partnership with Scott Hodgson at the University of Oklahoma, the Central United States Earthquake Consortium (CUSEC), the Illinois Emergency Management Agency (IEMA), and the Great ShakeOut, which persisted throughout FY 2023.

Interim Director Henson actively engaged in television and radio news programs, offering insights and discussions on earthquake awareness and preparedness. Furthermore, outreach activities involved the explanation and practice of the Drop, Cover, and Hold On drill with students, teachers, and faculty members. The earthquake informational kiosk developed for the Arkansas Division of Emergency Management (ADEM), The kiosk was developed to facilitate outreach and public education regarding earthquake threats to the Midwest. SERC hopes to obtain funding to deploy additional portable kiosks in other states, further expanding outreach efforts and raising awareness about earthquake preparedness across the US.

# **Objective 5.** Establish partnerships aimed at enhancing evaluation and implementing assessment for STEM education

The SERC continued the sixth year of the *Illinois Science Assessment Partnership*, an intergovernmental agreement (IGA) and contract with the Illinois State Board of Education (ISBE) to develop, implement, score, and report the Illinois Science Assessment (ISA). SERC coordinated the large scale program, which included higher education faculty, researchers, and experts from seven universities, over 400 K-12 educators, numerous school districts, and regional offices of education from across the state, to develop the ISA items and test bank aligned to the Illinois Learning Standards in Science based upon the NGSS. A partnership with the National Science Teaching Association (NSTA) was established by SIU to support the project, train our teacher partners, and ensure standards alignment. The ISA project created a network for teachers to access STEM resources and receive professional development related to assessment. Teachers working with the SERC on the ISA gained confidence, knowledge and buyin with regard to assessment and standards, and they learned about available services and as they were engaged by SERC faculty and staff.

The ISA is an online science learning assessment of 425,000 5<sup>th</sup>, 8<sup>th</sup> and 11<sup>th</sup> grade students in Illinois public schools. Some test questions provide opportunity for students to write extended responses to questions. SERC staff recruited, managed, and evaluated the ISA hand-scoring process which required qualified raters. Recruitment included hosting information sessions and leading presentations at teacher conferences/institutes including the Mount Vernon Conference, ROE 30 Teacher Institute, Science in the South at SIU, Northern Illinois Science Educators, Illinois Science Teachers Association, and the NSTA Annual Conference. 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.

Our research results show, that curriculum, instruction and assessment are integrally related, as teachers involved in the test development, scoring, or evaluation process are aligning their instruction to NGSS. The expectation is that student learning will increase by the experiences teachers bring back to the classroom from participation in this and other SERC programs. The ISBE reports students' assessment scores are improving as well. 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 and will help improve student learning and teaching for years to come.

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

The SERC has been successful in obtaining a wide range of contracts and grants to support its activities (see section 11.4). As discussed previously, these funds provided support for undergraduate and graduate students in their preparation for careers in STEM and education. Support ranged from undergraduate scholarships, student waivers, and graduate assistantships. SERC faculty and staff served on thesis and dissertation committees. The SERC also provided student mentoring to students, and student organizations including the STEM Education Ambassadors, Education Living and Learning Community, Saluki Science Ambassadors, Science Living and Learning Community, and Leadership Development Program. The SERC partnerships continued to assist and improve students' academic preparation and increase motivation in STEM so that Illinois students successfully prepare for STEM careers.

In addition to the financial support, several undergraduate and graduate students at SIU and at seven other universities were mentored by faculty and involved in the *Illinois Science*Assessment Partnership and ISA activities as described in prior sections of this report. This experience was particularly valuable to preservice teachers and students interested in education careers. Several graduate students learned research skills related to assessment practices, data management and analysis, psychometric tasks applied in the ISA, and other skills used in general assessment and STEM education research.

In collaboration with the Office of Vice Chancellor of Research and the Office of Sponsored Projects Administration, SERC, facilitated workshops for faculty interested in the NSF Scholarships for STEM (S-STEM) program. These workshops aimed to equip participants with skills and partnerships necessary for developing S-STEM grant proposals to secure scholarships supporting STEM students at SIU. In FY 2022, four S-STEM proposals were crafted by STEM faculty and submitted to the NSF, although none received funding initially. However, faculty teams were encouraged and supported to refine and resubmit their proposals. Subsequently, three teams pursued revisions, leading to the successful funding of one proposal: the S-STEM grant, Converging Earth Science and Sustainability Education and Experience to Prepare Next-Generation Geoscientists, co-written by an interdisciplinary team including Interim Director Dr. Harvey Henson. The other leadership team members are Wendell Williams, Associate Vice Chancellor for Enrollment Management, and School of Earth Systems & Sustainability faculty Dr. Ruopu Li (PI), Dr. Leslie Durham, and Dr. Justin Schoof, Director. This grant, Converging Earth Science and Sustainability Education and Experience to Prepare Next-Generation Geoscientists, was awarded \$1.33M by the NSF and exemplifies collaborative success and underscores the potential for future workshops based on this achievement (see https://news.siu.edu/2022/08/082422-SIU-research-team-wins-1.33M-NSF-grant-to-trainsustainability-focused-geoscientists.php).

Furthermore, another noteworthy NSF-funded S-STEM initiative, Pathways to STEM Leadership, was established by PI Bruce DeRuntz and Co-PI Henson. Originating in 2007 with a focus on engineering majors, the program expanded to encompass all STEM disciplines with additional NSF funding. The program boasts a remarkable 96% graduation rate and an impressive 94% placement rate in STEM careers. Program outcomes and experiences were shared with the wider academic community through presentations at national conferences in Engineering and

STEM education during FY 2022 and FY 2023. Plans for additional presentations and papers are underway to further disseminate the program's impact and insights.

Throughout FY 2023, SERC sustained collaborations among faculty and staff across various disciplines, including science education, math education, engineering, quantitative methods, geography, geology, anthropology, health and human services, and others. These collaborations aimed to advance STEM research and education initiatives, fostering interdisciplinary approaches and knowledge exchange.

The SERC partnered with STEM and education faculty to help improve students' educational success. The SERC purchased resources, helped create innovative materials, and offered ancillary support to STEM courses and instructors. Working with colleague Dr. Lingguo Bu, materials were supplied to create STEM-Art and 3D designs for math and STEM education in the 3D Printing Lab. Dr. Bu has developed and released over 300 designs as of FY 2023 (see https://www.thingiverse.com/lgbu/designs).

Looking ahead, plans are underway to broaden and enrich STEM research and education efforts by involving faculty and students from the Arts and Media, as well as other academic units. These initiatives are particularly timely as preparations intensify for the next Total Solar Eclipse event scheduled for April 2024. By incorporating diverse perspectives and expertise from across academic disciplines, SERC aims to enhance understanding and engagement with this astronomical phenomenon, fostering innovative approaches to research, education, and public outreach surrounding the event.

SERC has served public school teachers and provided access to the dynamic resources, vast expertise, and dedicated personnel at SIU. The SERC aims to be a hub of support and innovation for the STEM community at SIU, and to serve other 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 school visits, outreach materials, and coordinating volunteers. SERC seeks to enable sharing of resources, learning materials, equipment, or personnel, and to initiate, facilitate and foster research partnerships among STEM stakeholders, educators, faculty and students.

SERC staff and graduate students attempted to maintain the Saluki Teen Science Café, an initiative focused on informal education outreach and research tailored to regional teenagers. In collaboration with the National Teen Science Café network, this effort aims to present STEM fields, topics, and professionals in an approachable and engaging manner to local teens. The Saluki STEM/Science Café provides a casual, out-of-school environment for teenagers to interact with STEM experts, explore topics of interest, and gain leadership skills.

Originally designed as an in-person experience, the Saluki Teen Science Café transitioned to online platforms via Zoom due to the Covid-19 shutdown, starting in October 2020 and continuing to the present. The organizing team in FY 2022 consisted of a SERC staff member, a faculty member, a STEM graduate student, and a PhD student in Curriculum and Instruction. Teens are notified of the meetings through email distributed by school administrators, teachers, Facebook, and word of mouth. However, attendance declined notably in the latter half of 2023 after key personnel graduated and staff took other positions. In response, resources and staffing will be reallocated to revitalize the program and enhance participation in FY 2024.

As SERC staffing grows, we are poised to enhance engagement and foster partnerships with registered student organizations (RSOs), leveraging their potential as force multipliers in STEM

education and outreach efforts. Our strategy entails strengthening communication with STEM programs throughout the campus, amplifying sponsorship of events that celebrate and promote STEM programs and professions, including sporting, media, and arts events. Additionally, we plan to extend STEM education and engagement initiatives into the residential learning communities (LLCs) on campus, ensuring a holistic approach to fostering STEM interest and participation among students. Through these concerted efforts, we aim to cultivate a vibrant culture of STEM exploration and innovation across the university community.

# 11.5 Evidence of Organizational Effectiveness

SERC is a research and service unit at SIU and was highly effective at achieving organizational, university and IBHE goals (section 9.3 Objectives and section 11.3) 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 sections 11.2, 11.3, and 11.4.

#### **Involvement in Instruction**

Although SERC does not directly oversee academic instruction or program administration, its indirect contributions to these areas are significant. SERC facilitates faculty collaboration to research and enhance STEM education through innovative grants and contracts. For instance, Dr. Bruce DeRuntz (PI) and Interim Director Dr. Harvey Henson served as Co-PI for the Pathways to STEM Leadership grant, utilizing nearly \$1M in funding from the NSF S-STEM undergraduate scholarship program to bolster students' success in STEM and foster professional development in leadership; and Henson is a Co-PI on the new S-STEM project, *Converging Earth Science and Sustainability Education and Experience to Prepare Next-Generation Geoscientists*. Both STEM grant programs significantly enhance and support academic student success.

Furthermore, faculty members who collaborate within SERC have spearheaded innovative formal and informal education and outreach programs, directed academic programs or departments, led STEM initiatives, and instructed undergraduate and graduate courses in STEM and STEM education. SERC continues to offer undergraduate and graduate students degree-related work and meaningful service experiences in STEM, mentoring them to contribute to teaching, research, and service endeavors. Through external grant and contract funding, six graduate students and eight undergraduate students were directly employed within SERC. These students were supervised by SERC project faculty/staff and received mentorship or advisement from STEM faculty members. Their involvement provided valuable co-curricular exposure to STEM education and research, equipping them with professional and academic skills while offering financial support.

#### **Staffing Updates**

Staffing for SERC increased by 7.75 FTE to 19.25 FTE during FY 2023. Four additional full-time staff, 1 extra help office support staff, and 2 additional graduate assistants were hired in FY 2023 using external contract and grant funds. Mrs. Michelle Connet was hired to coordinate the *Special Education Behavior Assessment Training Project*. Mr. Duane Lickteig was hired as Researcher I to assist with grant proposal writing and project coordination. Duane directed the IJSHS and Challenge to Excellence summer camp in FY 2023. Mrs. Jennifer Rhodes was hired as Researcher I to assist with grant proposal writing and project coordination. Jennifer and Duane also assisted with the ISA project. Mr. Larry Dunlap-Berg was hired as Researcher I to assist with outreach and grant support. Mr. Stephen Gariepy worked on the ISA project and was later hired as Civil Service extra help to assist with non-formal education and outreach.

## **Grant and Contract Applications and Research**

STEM Center revenue available through grants and contracts increased significantly in FY 2023 and combined with continuing projects totaled \$2,841,104. The FY 2023 goal for grant and contract proposal submissions was exceeded by 10. Center faculty and staff served as principal investigator (PI) or Co-PI on 13 grant and contract proposals submitted in FY 2023, and 7 of these proposals were funded for a total of \$8,060,506.

The dissemination of research conducted through external contract and grant funding remains a priority for SERC, facilitating broad access to findings among scholars and practitioners alike. Sharing research and teaching outcomes at conferences and professional meetings is integral and expected among SERC colleagues, staff, and students, and the center remains committed to supporting faculty, staff, and students in achieving this objective.

Included in the table below are only peer-reviewed presentations, peer-reviewed publications, books, chapters, and invited presentations produced by faculty and staff employed or contracted within SERC. Dissemination activities of other collaborative faculty and staff who may receive support from SERC are not included in this report.

This approach ensures a focused overview of the impactful contributions and scholarly endeavors directly associated with SERC staff and faculty, while acknowledging the broader collaborative efforts that enrich the academic landscape within and beyond the institution.

STEM Education Research Center Dissemination Activities

Year	# Peer-Reviewed Publications and Creative Works	# Peer-Reviewed Presentations	FTE Research Faculty & Staff
FY 2023	9	11	2.50
FY 2022	12	15	2.50
FY 2021	8	11	2.25
FY 2020	10	11	1.75
FY 2019	8	18	1.75
FY 2018	8	20	3.25
FY 2017	9	13	2.25
FY 2016	5	17	0.25
FY 2015	11	9	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	FY2023	FY2022	FY2021*	FY2020	FY2019	FY2018	FY2017	FY2016
Resources								
Revenues								
State Appropriations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Income Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grants & Contracts (less Indirect Costs)	\$7,946,852	\$2,841,104	\$1,422,455	\$2,443,299	\$1,700,957	\$1,183,580	\$253,457	\$0
Other Internal Salary/Startup	\$0	\$0	\$0	\$0	\$0	\$0	\$11,397	\$11,397
Indirect Cost Recovery	\$46,708	\$42,657	\$26,258	\$24,047	\$35,187	\$42,650	\$20,346	\$0
Total Revenues	\$7,993,560	\$2,883,761	\$1,448,713	\$2,467,346	\$1,736,144	\$1,226,230	\$292,561	\$11,397
Expenditures*								
Faculty & Staff Salary	\$1,000,263	\$355,347	\$284,302	\$308,117	\$300,311	\$242,436	\$107,810	\$11,397
GA support & Student Worker	\$202,959	\$164,077	\$116,342	\$126,682	\$122,991	\$66,956	\$58,360	\$0
Supplies, Services, Equip	\$5,297,699	\$2,321,217	\$1,029,925	\$2,020,317	\$1,304,021	\$891,207	\$99,560	\$0
Travel	\$39,554	\$16,873	\$1,640	\$18,650	\$6,500	\$9,000	\$0	\$0
Total Expenditures	\$6,540,475	\$2,857,514	\$1,432,210	\$2,473,766	\$1,733,823	\$1,209,599	\$265,730	\$11,397
Revenue Minus Expenditures	\$1,453,085	\$26,247	\$16,503	(\$6,420)	\$2,321	\$16,631	\$19,470	\$0

Expenditures are categorized in easily understood, consistent categories (e.g., salaries, Graduate Assistant support).

Additional rows added as necessary. \* Corrections were made to financial revenues and expenditures reported for FY 2021.

Staffing (FTE)	FY2023	FY2022	FY 2021**	FY2020	FY2019	FY2018	FY2017	FY2016
Faculty	1.75	1.5	1.5	.75	0.5	0.5	0.5	0.25
Staff	9.0	4.75	2.0	1.75	1.75	1.75	1.75	0
Graduate Assistants	4.5	3.5	2.0	2.0	2.0	2.0	2.0	0
Student Workers	4.0	1.75	1.0	1.0	1.0	0.75	0.25	0
Total Staffing	19.25	11.5	6.5	5.50	5.25	5.0	4.5	0.25

<sup>\*\*</sup> Corrections were made to FTE reported for FY 2021.

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

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

1.	Reporting Institution	SIU Carbondale
2.	Center/Institute	Touch of Nature Outdoor Education Center
3.	Date	March 8, 2024
4.	Director	Brian Croft
	4.1 Telephone	618-453-3942
	4.2 E-mail	bcroft@siu.edu
5.	Year Established	Land acquired 1949. First programs in 1952.
6.	Illinois State Statute (if pertinent)	N/A
7.	Reporting Unit	Student Affairs
8.	Туре	Activity (check all that apply)
	Instructional	X
	Research	X
	Public Service	X

<sup>\*</sup> 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

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9.1	Descri	ונאונאו
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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, Veteran 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.

92	Μi	ission

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

# 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 \*

Mea	sure	Target for Year	Results in Year	
1. Program Participation		25,000	55,000	
2.				
3.				
4.				
5.				

<sup>\*</sup> 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)

- Staffing and Organizational Structure Change
- Return of Camp Little Giant
- Trail Useage of over 10,000
- The beginning of a TON Master Facility Plan
- Creation of the Little Grassy Get Down Music Festival
- Over 55,000 participants

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

- Increase in Outdoor Education Programming to local schools
- Continued Growth in Dawg Days Freshman Orientation Programs
- Continued Growth in Outdoor Education Programs from K-12 schools

## 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 \$450,000 in grants and donations to date
- SIU Credit Union Donates \$15,000 per year to support SIU student focused programs at the Center
- River Radio Donates over \$53,000 per year in radio advertising to the Center to support all Community Programs and Camp Little Giant

support		
vidence of Organizational	Effectiver	ness
ted Policies and Procedure	s for the	, - ,
ional Assessment		
Date of Last Review	2020/2	2021
Decision at Last Review	X	Center/Institute in Good Standing Center/Institute Flagged for Priority Review Center/Institute Suspended
Explanation	NA	
t	ion of a better and more ented Policies and Procedure d Accreditation with 100% ional Assessment  Date of Last Review  Decision at Last Review	ional Assessment  Date of Last Review 2020/  Decision at Last Review X

# **RESOURCES: Touch of Nature Outdoor Education Center**

Financial Resources	FY2023	FY 2022	FY2021	FY2020	FY2019	FY2018	FY2017
Revenues							
State Appropriations	461,844.75	386,000	483,319.03	512,026.65			
Income Fund	613,773.50	410,796	286,772.14	406,054.46	967,738.88	856,531.58	861,241.79
Grants & Contracts							
XXX							
XXX							
XXX							
Total Revenues	\$1,075,618.25						
Expenditures*							
Salaries	588,069.35	\$674,397	\$619,952.78	\$814,244.19	\$803,672.45	\$653,778.37	\$477,910.59
Wages	\$6,713.53	\$7,826	\$1,041.76	\$30,870.49	\$62,751.84	\$64,569.92	\$52,157.13
Travel		0	\$0.00	\$847.31	\$55.00	\$291.35	\$457.24
Equipment	\$3,000.83	\$19,475	\$41,491.51	\$24,217.74	\$291.56	-\$5,850.00	\$46,721.41
Commodities	\$41,041.53	\$100,260	\$66,920.35	\$130,609.94	\$100,801.91	\$84,360.94	\$60,879.59
Contractual Services	\$216,883.51	\$209,990	\$154,355.15	\$235,121.65	\$224,564.99	\$316,080.56	\$220,288.87
Operation of Auto	\$20,450.02	\$20,029	\$18,818.57	\$35,639.19	\$42,388.36	\$35,027.28	\$18,221.93
Telecommunication s	\$39,122.03	\$15,148	\$30,458.68	\$14,548.54	\$16,526.18	\$15,573.72	\$95,498.95
Employer Contributions	\$11,889.18	\$13,006	\$16,159.58	\$11,640.85	\$11,941.64	\$8,036.04	\$7,752.36
General Administration	\$2,012.34	\$20,331	12,106.16	\$5,887.53		2910.00	2957.00
Refunds				\$1,250.00			
Awards and Grants	\$90	\$990	187.32		1105.98	328.50	683.28
Office Expense	\$20.88	\$1,172					
Total Expenditures	\$1,282,664.50	\$1,095,1 25	961,679.18	\$1,304,737.43	1,264,099.91	1,172,196.68	983,528.35
D 14:	T		I	ı			
Revenue Minus Expenditures	-207,046.25	-298,329	-191,588.01	-386,656.32	-296,361.03	-315,635.10	-122,286.56

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

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019	FY2018	FY2017
Faculty		2@25%	2 @ 25%	2 @ 25%			
Staff	11	2@75 11@100%	11 @ 100% 2 @ 75%	12 @ 100% 2 @ 75%	13	13	9
Total Ctaffing	144	40	10	144	10	10	
Total Staffing	11	13	13	14	13	13	9

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

(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 21, 2024
4.	Director	Fred Martino
	4.1 Telephone	618-453-6181
	4.2 E-mail	fred.martino@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	Activity
	• •	(check all that apply)
	Instructional	X
	Research	
	Public Service	X

<sup>\*</sup> 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.	SIRIS (Southern IL Reading Info. Serv.) Subscribers	1,000	1,400
2.	Community Partnership Organizations	100	100
3.	Family Day Attendance at Cedarhurst Mt. Vernon		
	& Henson Robinson Zoo Springfield	1,000	3,050
4.	Indie Lens Pop Up Attendees	100	66
5.	Individual Outreach contacts	1,000	3,000

<sup>\*</sup> 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)

\*Launched weekly version of "In Focus" and the new weekly program "Eye on Education"

\*Launched a single news-focused website, offering a wide variety of regional, national, and world news

\*Worked with the Southern Illinois University Carbondale Journalism department to host a German Journalist as part of the RIAS Journalism Exchange program

\*WSIU arranged time for our German visitor to work with students at Southern Illinois University Carbondale and students from Herrin High School, expanding international education

\*Hosted several groups from SIU's Center for English as a Second Language. The visits included presentations and tours from WSIU employees and television interviews to provide valuable experience for the international students, while providing engagement for the region through a television broadcast that is also available in an online archive

\*Expanded educational outreach to area high schools with the goal of recruiting interns who can gain valuable editorial and technical training

\*Begin extensive planning and coordination to launch a news bureau for area middle and high schools with the Carbondale and Marion Public Libraries

\*Completed an eight-year program review, including an operating plan that is guiding our strategic planning effort.

# 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. WSIU worked with over 42 university and community volunteers who contributed 2,810 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 SIU College of Arts and Media to provide hands on, experiential learning through multiple broadcast productions throughout the fiscal year. These included daily radio newscasts and various video projects, full-length audio programming, the Illinois Lawmakers series, and CapitolView. WSIU Radio, in cooperation with the SIU University Press, and students in the SIU Creative Writing program provided the weekly Blanket Fort Radio podcast that serialized readings of University Press books. The series involves upwards of 20 students and an equal number of community volunteers.

WSIU Radio continued to provide 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. WSIU 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 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 Scholastic Hi-Q, Eye on Education, In Focus. and the CapitolView series; facilitated educational opportunities for children at local libraries.

WSIU-TV provided production support for the SIU Foundation's annual Day of Giving for University scholarships and programs. The event featured on-camera appearances by representatives from over 20 colleges, institutes, and other University agencies. Students in the SIUC Department of Radio-Television, and Digital Media operated cameras and other technical equipment for the daylong event.

# 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 58% fewer full-time staff than it operated with 20 years ago (down from 50 to 21). WSIU generates \$1.7 million in outside grant funding and more than \$2.3 million in local community support to compliment \$784, in University operating cash support.

#### 12. Institutional Assessment

12.1	Date of Last Review	2023
12.2	Decision at Last Review	X 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: WSIU Public Broadcasting**

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State Appropriations	784,881	784,447	690,292	764,306	827,203
Operating Grant – CPB	1,379,414	2,242,801	2,534,849	3,118,965	2,539,961
Operating Grant – State of IL	255,800	276,690	254,045	245,705	171,010
Project Grants	21,350	21,353	159,943	43,355	52,329
Membership Income	1,625,048	816,373	878,336	875,819	823,292
Underwriting Income	639,292	546,137	429,774	422,404	390,542
Production Income	80,885	33,396	3,429	5,408	42,379
Tower Income	64,891	63,700	62,267	115,260	95,810
Royalties (EBS, PBS)	74,905	76,629	103,502	0	0
Federal Work Study	5,241	8,403	7,892	10,932	18,161
Direct University Support	335,597	432,574	313,521	436,399	450,333
Indirect/In-Kind SIU Support	771,079	1,212,146	1,136,524	1,040,528	1,008,996
Other Indirect Support	38,998	20,735	13,901	39,996	49,716
Building & Equip SIU Support	0	0	0	0	41,747
Investment Income	65,376	17,093	33,761	1,999	4,952
State Benefit Payments	147,949	1,281,168	1,789,142	685,074	708,015
Miscellaneous Income	7,367	0	0	0	2,701
FCC Repack Funding	0	88,398	205,769	1,961,710	10,957
Total Revenues	6,298,073	7,922,043	8,616,947	9,767,860	7,238,104
Expenditures*					
Programming & Production	2,591,436	3,617,319	3,779,875	3,247,965	2,957,047
Broadcasting & Engineering	1,437,021	1,916,685	2,131,353	1,998,224	1,638,450
Program Info & Promotion	132,004	155,285	174,093	206,545	403,992
Fundraising & Membership	423,761	485,991	522,980	548,936	314,786
Underwriting & Grant	339,580	582,463	609,248	381,188	144,420
Management & General	727,580	969,448	1,098,556	1,053,794	1,015,643
Loss-Disposal of Equipment	0	0	257,937	0	0
Total Expenditures	5,651,382	7,727,191	8,574,042	7,436,652	6,474,338
Revenue Minus Expenditures	646,691	194,852	42,905	2,331,208	763,766

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

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
Faculty-Full Time	0	1.40	1.40	1.40	1.50
Staff-Full Time	20.72	33.55	32.03	25.60	22.00
Student Employees-FTE	.71	3.26	8.88	14.69	15.71
Total Staffing-FTE	21.43	38.21	42.31	41.69	39.21
Student Employees Number/Yr	14	31	29	40	56

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

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

1.	Reportin	g Institution	Southern Illinois University Edwardsville
2.	Center/li	nstitute	Center for Predictive Analytics
3.	Date		Fahruary 20, 2004
J.	Date		February 22, 2024
4.	Director		Carolyn Butts-Wilmsmeyer
	4.1	Telephone	618-650-2682
	4.2	E-mail	cbuttsw@siue.edu
5.	Year Est	tablished	April 30, 2020 (received permanent approval from IBHE) 2018 (established through Chancellor's Innovation Proposal)
6.	Illinois S (if pertinen	tate Statute t)	N/A
7.	Reportin	g Unit	Graduate Studies and Research
8.	Туре		Activity
			(check all that apply)
	Instructi	onal	
	Researcl	า	X
	Public Se	ervice	

<sup>\*</sup> 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

- 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.
- 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

# **Internal Members**

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

## **External Members**

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

10.2 Number of Meetings (In This Year)

# 11. Annual Performance

# 11.1 Performance Measures \*

Mea	sure	Target for Year	Results in Year
1.	Develop grant proposals as PI and/or collaborator with SIUE or external partners	3	11
2.	Active projects underway supported by grants and contracts	4	9
3.	Submit peer-reviewed articles for publication	2	2
4.	Collaboration across campus through the Faculty Fellows and Faculty Affiliates program.	2 fellows/affiliates	4 fellows/affiliates
5.	Assist other SIUE academic and administrative units with student retention and student success projects.	1 project	2 projects
6.	Monitor and track progress of SIU System Strategic Plan	1 Written Report & 1 Online Dashboard	1 Written Report & 1 Online Dashboard
7.	Train students in data science through experiential learning opportunities.	1 grad, 3 undergrads	2 grads, 9 undergrads
8.	Promote the ethical use of data science within the SIUE Campus community through workshops, seminars, etc.	3 workshops 45 participants	8 workshops 448 Participants
9.	Promote the ethical use of data science within the region through the development of continuing education courses in data science for the public.	5 courses	5 courses
10.	Disseminate Center for Predictive Analytics activities through press releases.	3	3
11.	Presentations at conferences or other scholarly venues.	2	4

<sup>\*</sup> 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) focused its efforts in FY23 in three areas: research in and continued pursuit of external support for research in data science, support of faculty research at SIUE, and support of student success initiatives on SIUE's campus. Looking first at research in data science pursued by the Center, C-PAN addressed this goal in a variety of ways. First, the Center submitted grant proposals and contracts in which Center personnel were listed as either PI or Co-PI. These submissions totaled \$9,174,298.73 in submissions, with C-PAN personnel leading \$5,221,937.34 of these submissions. Of these submissions, C-PAN successfully secured \$3,222,500. This is in addition to \$1,854,331 in active projects, many of which are multi-year. C-PAN staff also supported large projects on SIUE's campus, totaling approximately \$2,000,000 in Center-supported projects, by performing federally or state mandated program reviews.

As can be seen by the submission and award figures above and on the last page of this report, as C-PAN has matured, it has amassed a sizeable research portfolio relative to its full-time staff. This created the opportunity to expand the Center's staff in early FY23 and also enabled the Center to better support submissions of other units. In mid-2022, C-PAN was tasked with supporting the SIU System Strategic Plan by monitoring progress and reporting outcomes of related to the work of the Implementation Teams. In support of this endeavor, Courtney Breckenridge was hired as a Research Fellow to track, monitor, and report on the progress of the SIU Strategic Plan. C-PAN, working with the Office of the SIU Vice President for Academic Innovation, Planning, and Partnerships, onboarded all 15 Implementation Teams, began helping them to establish baseline data and metrics, created a system for the submission of both qualitative and quantitative outcomes, and synthesized these into reports that were presented to the SIU Board of Trustees. In addition to standard reports, the C-PAN team began to create an online and interactive dashboard at the end of FY23 (https://siusystem.edu/about/strategicplan/StrategicPlanDashboardOverview.shtml). In addition to Courtney Breckenridge's role as a Research Fellow supporting the SIU System Strategic Plan, 25% of her appointment is also dedicated to the pursuit of external funding opportunities.

As an example of C-PAN's expanded capacity, our Center supported the development of 5 proposals where C-PAN was not the lead unit, totaling \$3,952,361.39 in submissions. These proposals ranged the spectrum from supporting education and training in STEM, including data science training; supporting projects involving computer vision and machine learning; supporting projects aimed at improving educational opportunities in underserved communities; and evaluating the effectiveness and impacts of training programs at the SIU System level. To support the scholarly missions of faculty at SIUE, C-PAN hired 4 faculty fellows and faculty affiliates. In addition to conducting research in data science or data-intensive areas, these 4

individuals also helped to provide services to the SIUE campus such as: mentorship of students in experiential research learning environments, hosting of workshops based on their respective disciplines' needs, and data consultation. Together with the Director, the faculty fellows and affiliates worked together to host a total of 8 workshops and serve 448 participants. These workshops were open to all faculty, staff, and graduate students at SIUE. Furthermore, all workshop recordings and resources are not available to the general public at <a href="https://www.youtube.com/playlist?list=PLuJ3pjSP1N7-Ra0JI1M-8d3QazI">https://www.youtube.com/playlist?list=PLuJ3pjSP1N7-Ra0JI1M-8d3QazI</a> 5IPWd.

Although the pursuit of external funding and the support of faculty research were the areas of greatest focus in FY23, all Center efforts are conducted with the intention of providing excellent training opportunities to our students. In the area of student training, C-PAN continued its flagship Experiential Learning In Applied Statistics (ELIAS) Fellowship Program. The ability to work in both data science and understand the needs of other disciplines in which data science is being employed is essential to the training of well-prepared graduates; this central tenet of the training provided by C-PAN to students is directly in-line with recent publications released by the National Academies of Science, Engineering, and Medicine. The ELIAS fellowship program offers similar training to students, except that it focuses upon the merger of training in the life sciences and applied statistics/introductory data science. The ELIAS fellows are recruited from underrepresented groups within data science and the agricultural and life sciences (e.g. underrepresented racial minorities, women, and transfer students). They are then mentored in research and supported for a guaranteed two years through their fellowship. To date, the program has a 100% retention and 90% placement rate among student fellows.

C-PAN was also directly involved in large, campuswide student success data projects in FY23. The first of these projects was primarily focused on enrollment yield. Prior to undertaking this study, it was noted that there were some disparities between the representation of various racial groups in SIUE's student body versus what might be expected given the demographics of the surrounding region. The purpose of this study was to ensure that there were no hurdles that were inequitably impacting enrollment at SIUE. Furthermore, this study also took the opportunity to examine which variables influenced enrollment overall, and whether there were support mechanisms that could be implemented that would serve the students enrolling at SIUE. This study began in FY22, and continued into FY23 upon recognizing that all major barriers that may be leading to inequitable college attainment had been addressed at that time. Following this initial study, we examined which factors might be most highly associated with a student deciding to enroll at SIUE. The study found that, not surprisingly, enrollment yield was a function of a student's proximity to SIUE, their high school GPA (and potential offers elsewhere), and financial factors. It should be noted that this study was completed prior to the

worst of the inflation issues that are impacting students today, so new challenges have likely emerged for our students.

The second student success study with which we were involved reshaped policies campuswide. For years, our Center has been involved in the ongoing monitoring of student success, including retention and graduation of our students. One of the factors that consistently emerged in analyses and anecdotal evidence was that student success was tied to a sense of community and belonging. It was also noted that students tended to perform very well once they declared a major and began completing their major coursework. Students communicated not feeling as if they belonged to a community and as if they were without direction until they declared a major. Therefore, when the campus administration posed the question as to whether we could allow all students to declare a major directly upon admission to SIUE, C-PAN performed simulated and empirical analyses for admissions criteria for each college/school at SIUE. These analyses, including spreadsheets of simulated and empirical data, have now been presented campuswide to guide administrators as we enter this new phase in SIUE's history. We also understand fully that this new admissions policy will uncover new challenges, particularly as it relates to student advising needs; it is our intention to monitor this process constantly over the next few years and to help identify challenges as they begin to emerge.

<sup>1</sup> National Academies of Sciences, Engineering, and Medicine. *Data science for undergraduates: Opportunities and options*. National Academies Press, 2018.

# 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, IR, 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: In its first four years of operation (FY20 FY23), C-PAN has successfully obtained \$2,725,072 in grants and contracts as PI (\$5,708,297 total) and has supported a large number of faculty and students in their scholarly endeavors. 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. Equity: The Center is directly working to address educational attainment discrepancies among underserved populations, including minorities, women, and students from impoverished backgrounds, among others. We understand that the pathway to success is different for each student, and that the support mechanisms necessary for the success of students is not a one-size-fits-all solution. 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. Sustainability: To sustain the people of Illinois, it is imperative that that we remove unnecessary barriers to college education and training, and that we tie our training strategies directly to workforce needs. Without the removal of unnecessary economic barriers to obtaining a college education, students from disadvantaged backgrounds will continue to struggle to achieve their educational and career aspirations. This creates a systemic cycle that persists across generations. We are directly invested in efforts to provide financial support mechanisms that 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 \$10,400 per year for two years. We also budget student research stipends or internships into almost every grant or contract we draft so that students will be able to engage in meaningful research experiences while also not incurring a financial burden. We also partner with the Office of Enrollment Management to identify mechanisms for supporting student success that are tied to addressing unmet need. Our work in the area of workforce development is elaborated upon in more detail in the Growth section below.

However, we are not sustainable ourselves. C-PAN receives \$100,000 per year in state dollars from SIUE. Much of our mission is in direct service to the SIUE community. However, our support lines do not even cover the base salary of our Director, let alone our other employees or our operating costs. At the beginning of the year, we begin with over \$50,000 in debt because of lack of financial support, just in the salaries of our core Center staff (10.5% of the Director, 25% of one Research Fellow [75% is covered by the SIU System Office], and the entirety of our portion [50%] of an Office Support Specialist's salaries are uncovered). Before we can support any of the initiatives involving equitable student research and training opportunities, support of faculty and staff scholarship through C-PAN Faculty Fellows/Affiliates and workshops, and workforce training in the region, we must cover the remaining deficits in our own salaries. We are then obligated to seek additional external funding and projects to remove some of the minimal salary dollars from our core staff, and they take on research projects in addition to their core duties. But, they are not compensated for this overload. This is not sustainable.

c. Growth: The economic and humanitarian growth of our state builds directly upon the pillars of equitable and sustainable educational training. Our training models meet students at multiple points along their career trajectories, from within the traditional classroom to within the current workforce. The model employed by C-PAN for our undergraduate and graduate student population is that the Center acquires research projects, and then trains 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. In service to the non-traditional workforce, we actively built industry-aligned credentialing programs in FY23 that focused on the data science skillsets that will enable individuals to upskill or enter the data science profession. These credentialling programs will be launched in late FY24 and early FY25.

We also believe that it is highly important that education, research, and innovation be linked together to support 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

Broad 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 FY22, we partnered with 14 departments/units at SIUE, as well as multiple external partners, for submission of \$8,516,535 in external proposals and contracts. This does not include collaborations in which C-PAN served as key personnel on proposals.

Program Area/Sponsor	Partnering Units/Institutions	Amount
USDA-AFRI-EWD	SIUE: Chemistry and C-PAN	\$750,000
Department of Labor (DOL) and Bureau of Prisons (BOP)	SIUE (C-PAN, Chemistry, Center for Crime Science and Violence Prevention, Sociology, Office of Online Services and Educational Outreach), IL Department of Commerce and Economic Opportunity, 4 federal prisons in the State of Illinois, Illinois Innovation Network, SIU System Office for Community Engagement, and SIUC	\$2,000,000 (Note, this is part of a \$10M award to IL DCEO)
NSF-NRT	SIUE (C-PAN, Chemistry, Environmental Sciences, GeoMARC, Statistics, Vice Chancellor for Equity, Diversity, and Inclusion), University of Illinois at Urbana- Champaign, IL Department of Natural Resources, MilliporeSigma, IL Corn Growers Association, Shimadzu, St. Louis BioSTL, Missouri Botanical Garden,	\$1,999,437
US Department of the Treasury	SIUE (C-PAN, Chemistry, Office of Online Services and Educational Outreach, Grad School), City of Venice, City of Brooklyn, City of Madison, Madison County Employment and Training	\$497,500

US Department of Education	SIUE: Teaching and Learning, Social Work, and C-PAN	\$2,500,000
IL Department of Public Health	SIUE: C-PAN and School of Pharmacy	\$249,000
IL EPA	SIU System Office of Community Engagement and C-PAN	\$82,677
US Department of the Treasury	C-PAN, IL Department of Commerce and Economic Opportunity, Illinois Innovation Network, and Illinois State University	\$100,000
USDA-AFRI	SIUE: Computer Science and C-PAN	\$19,684
NSF-ART	SIUC Office of Technology Transfer, Research Park, Extended Campus, Chemistry, Digital Humanities, Curriculum & Instruction, Geology, Office of the Vice Chancellor for Diversity, Equity, and Inclusion SIU System: Office of Community Engagement SIUE: Management and Marketing and C-PAN	\$60,000  (Note: \$60K was SIUE and the OCE's portions, not the overall submission amount)
Madison County	SIUE: C-PAN, Chemistry, and Office of Online Services and Community Engagement	\$375,000
Total		\$9,174,298.73

# Broad Objective 2: Support Faculty Research and Access to Expertise

Since C-PAN's establishment and formal recognition as a center by the IBHE in FY20, the Center has progressively moved from submission and acquisition of external funding to capacity building, and now campus and community impact. In FY23, C-PAN continued its expansion of operational capacity through the hiring of additional Center staff, including a full-time Research Fellow. Faculty Fellows and Faculty Affiliates, these being individuals already employed at SIUE,

continue to serve a pivotal role at C-PAN. These individuals dedicate their time to service to the university through internal consulting and projects, as opposed to faculty having to pay for those consulting services. The Fellows and Affiliates were also involved in presenting workshops that were offered freely to the campus community, and we began extending these to all SIU faculty and staff at the end of FY23 as we found mechanisms that enabled us to do so. Likewise, due to the infrastructure and access to expertise that has continued to grow at the Center, C-PAN was able to continue to be of service to administrators as they navigated questions pertaining to student retention and student success.

# Broad Objective 3: Student Retention and Success

In FY23, C-PAN undertook two large projects pertaining to student retention and student success. The first of these was a study that examined student enrollment trends. We used this study to verify that no notable barriers to student enrollment were present that were significantly disadvantaging any one group over another. However, it is also important to note that this study took place prior to the worst of the recent inflation trends, and so new barriers may exist that emerged after this study was completed. This study also found that enrollment yield was a function of a student's proximity to SIUE, their high school GPA (and potential offers elsewhere), and financial factors.

The second student success study with which we were involved reshaped policies campuswide. One of the factors that consistently emerged in analyses and anecdotal evidence was that student success was tied to a sense of community and belonging. It was also noted that students tended to perform very well once they declared a major and began completing their major coursework. Students communicated not feeling as if they belonged to a community and as if they were without direction until they declared a major. Therefore, when the campus administration posed the question as to whether we could allow all students to declare a major directly upon admission to SIUE, C-PAN performed simulated and empirical analyses for admissions criteria for each college/school at SIUE. These analyses, including spreadsheets of simulated and empirical data, have now been presented campuswide to guide administrators as we enter this new phase in SIUE's history. We also understand fully that this new admissions policy will uncover new challenges, particularly as it relates to student advising needs; it is our intention to monitor this process constantly over the next few years and to help identify challenges as they begin to emerge.

# Broad Objective 4: Real-World Experiences and Mentorship for Students

Previous studies conducted by the Center indicated that mentorship and feeling of belonging can have drastic positive impacts on student success. This knowledge guides all student training experiences offered by the Center. Students gained experience working with real-world

datasets and in generating reports for collaborators, which helped them learn how to communicate complex data science findings. All students are paired with at least one mentor to help guide them with research. This also helps support students' educational careers through the formation of a trusting mentor-mentee relationship in which students can ask a variety of educational and career questions. During FY23, the Center continued its immersive training of students through the Experiential Learning In Applied Statistics (ELIAS) fellowship program and through internships or other research experiences as funded by grant opportunities. We have been employing this latter option since FY22 with great success. The inclusion of student internships and research experiences as part of grants and contracts has opened the door for real-world training and mentorship and has allowed us to reach a greater number of students. This has a secondary impact of allowing students to work within a multidisciplinary team and enabling them to learn a combination of skills within their own discipline and within data science.

# 11.5 Evidence of Organizational Effectiveness

# **Organizational Effectiveness in Achieving Predetermined Goals**

As shown in Section 11.1, we met or exceeded all targets for our 11 metrics. Since C-PAN's inception, the Center has shifted from the establishment of physical infrastructure (year 1 – FY20) to operational infrastructure (FY21 through FY23), and is now moving into operationalization and organizational impact (FY23 and continuing). Through this progression of physical infrastructure to operational infrastructure to operationalization and organizational impact, our metrics have sometimes updated to reflect our changing capabilities. The operationalization, activities, and infrastructure built to date are reflective of the expressed desires of SIUE's faculty, and C-PAN serves as a centralized data science resource that meets the needs of a large portion of the campus community.

#### **Research & Grant Applications**

In FY23, C-PAN boasted \$9,174,298.73 in submissions and \$2,761,831 in active grants and contracts. This included \$847,500 in new awards that began in FY23. Many of these are multi-year, with much of the expenditures expected in FY24 and beyond. However, in just FY23, C-PAN managed the spending of \$885,398 in grant activity, and also received an additional \$23,604.68 in faculty support through collaborative grant activities. This represents a significant milestone in C-PAN's history, as our research capacity has crossed over \$1,000,000 in annual revenue and expenditures, representing over a 10-fold return-on-investment. We anticipate maintaining these levels of revenue and expenditures for the foreseeable future, but this does create a concern. This level of grant-activity and revenue generation can only be sustained with

funding for core center staff; otherwise, we fear staff turnover will reduce the level of revenue brought to the university. At the present, however, this is a positive milestone to be celebrated as it clearly indicates C-PAN's continued financial sustainability and success at obtaining grant support as it approaches its formal review. Below is a summarization of C-PAN presentations, publications, and grant dollars per FTE in FY23.

Year	# Scholarly Publications	# Scholarly Presentations	FTE Research Faculty	Grant Dollars per FTE
FY23	4	4	1.25	708,318.40

12.	Institut	ional Assessment		
	12.1	Date of Last Review	NA – Cen	ter Established in FY20
	12.2	Decision at Last Review		Center/Institute in Good Standing
				Center/Institute Flagged for Priority Review
			,	Center/Institute Suspended
	12.3	Explanation	(Center e review.	stablished in FY20. Has not yet undergone formal

# **RESOURCES:** Center for Predictive Analytics (C-PAN)

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State Appropriations	100,000	100,000.00	125,000.00	154,168.00	0
Income Fund	3,136.00	0	0	0	0
Grants & Contracts	885,398.80	198,175.50	86,069.31	26,500.00	0
Salary Transfer	73,542.00	1,349.95	2,400.00	0	0
Non-Recurring Funds	0	0	0	0	0
ICR	19,426.77	11,841.17	11,944.15	0 Transferred in FY21	0
Total Revenues	1,081,503.57	311,366.62	225,413.46	180,668.00	0
				,	
Expenditures*					
Salaries	367,776.80	143,880.67	127,695.79	105,953.31	0
Student Wages	11,152.95	4,547.25	728.00	0	0
Travel	334.58	540.05	0	0	0
Equipment	569.83	1,108.00	1,561.28	28,275.07	0
Commodities	15,304.88	8,352.44	706.38	954.88	0
Contractual Services	110,288.55	74,898.35	39,808.75	0	0
Awards	63,020.00	29,000.00	29,000.00	0	0
Scholarships	0	0	0	0	0
Telecommunications	477.10	0	0	275.00	0
F&A	119,602.41	27,896.09	9,655.00	3,975.00	0
Benefits	56,331.75	10,985.00	943.72	4,725.93	0

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Participant Support	224,486.86	94.77	410.00	0	0
Non-Mandatory Transfers	0	0	0	23,000.00	0
Total Expenditures	1,031,951.44	301,303.07	210,508.92	167,159.19	0
Revenue Minus	49,552.13	10,063.55	14,904.54	11,186.81	0
	70,002.10	10,000.00	1-7,50-7.5-7	11,100.01	· ·
Expenditures					

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

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
Faculty	2.81	1.20	1.25	1	0
-				1	
Staff	1	0	0.1	0	0
Graduate Students	1.07	1.5	0.5	0.25	0
Total Staffing	4.87	2.7	1.85	1.25	0

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

(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	February 28, 2024
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	N/A
0.	(if pertinent)	NA .
7.	Reporting Unit	Graduate Studies and Research
8.	Туре	Activity
	In atom attack a	(check all that apply)
	Instructional	X
	Research	X
	Public Service	X

<sup>\*</sup> 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 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 SIUE STEM Center brings together researchers and educators to lead inventive approaches in engaging students and the public in STEM. Our goal is to enhance STEM education, inspire curiosity, and contribute to advancing knowledge.

# 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 2023

Internal Advisory Group:

Chris Gordon, Associate Dean & Professor, School of Engineering

Kelly Jo Hendricks, Director, Kimmel Student Involvement Center

Terri Poirier, Professor, School of Pharmacy

Chaya Gopalan, Professor, Applied Health and Nursing

Barb Nwacha, Professor, Department of Art and Design

Vance McCracken, Associate Dean & Professor, College of Arts and Sciences

Desiree Tyus, Director, Collinsville Upward Bound Math & Science

Nicole Klein, Director & Professor, Psychology & Faculty Development

.0.2 Number of Meetings (In This Year)	1
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# 11. Annual Performance

# 11.1 Performance Measures<sup>1</sup>

Meas	ure		Target for Year*	Results in Year
1.		Develop grant proposals as PI/collaborator with SIUE units or external partners (Sec 11.4)	3	8
2.	Research	Submit manuscripts for peer-reviewed publications	3	2
3.	-	Scholarly presentations	5	11
4.	Instruction	Provide instruction for SIUE academic departments	3 credit hours	25 credit hours
5.		Issue RFP and award Faculty Fellow(s) in undergraduate education	program paused	
6.		Promote use of STEM Resource Center lending library	790 direct impact	6,173 direct impact
7.	Public	Offer educator professional development	3 programs	4 programs
8.	Service	Develop new community partnerships	2 new partnerships	4 new partnerships
9.		Deliver STEM community outreach activities	25 outreach events	84 outreach events

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)

#### **ACTIVE GRANTS - \$4,971,751**

The STEM Center managed six federal grant awards and one private grant in FY2023, achieving multiple goals for improving STEM education in the region.

# Environmental Health Investigators (funded by National Institute of General Medical Sciences) & Youth-Led Citizen Science (funded by National Science Foundation)

In cooperation with area middle and high schools, STEM Center staff implemented the Environmental Health Investigators program, funded by a \$1.3 million NIH-funded Science Education Partnership Award (SEPA), and the Youth-Led Citizen Science program (Y-CITYSCI), funded by a \$1.0 million NSF grant. These programs used engaging student-centered, data-driven activities developed by the STEM Center to help students gain experience with their environment and environmental health.

Through these projects, the STEM Center, in collaboration with the SIUE Departments of Environmental Sciences and Applied Health, continues to implement student programming that connects area youth with exposure sciences. Through Y-CITYSCI and Environmental Health Investigators, STEM Center faculty and staff developed and provided innovative, relevant programming that helps youth explore technologies and concepts leading to a greater understanding of their environments.

# At the Confluence: Supporting Critical Transitions for Graduate Students in Sustainable Watersheds Research (funded by National Science Foundation)

The STEM Center, partnering with SIUE Departments of Biology, Chemistry, Civil Engineering, and Environmental Sciences is administering a National Science Foundation S-STEM award for \$1,500,000. The award supports scholarship funds for low-income graduate students pursuing their master's degree at SIUE and with an interest in watershed sciences. The S-STEM award also supports co-curricular activities for the students accepted into the program intended to increase their capacity as students at SIUE and emerging scholars. Further, the research team is offering professional development opportunities for SIUE faculty to support research-informed best practices in mentorship and graduate education.

# **GP-EXTRA:** Personal Relevance, Global Significance: Building Geoscience Education and Career Pathways (funded by National Science Foundation)

The geoscience disciplines have strong employment growth and offer rewarding careers, but geosciences is one of the least diverse STEM disciplines. Through a \$432,038 grant from the National Science Foundation, the STEM Center is leading a project that raises SIUE student awareness and preparation for graduate school and/or employment in the geosciences. The STEM Center and faculty in Geography and Environmental Sciences are offering intensive research and field experiences for a cohort of 21 science-interested undergraduates. In May 2023, the grant

<sup>\*</sup>Targets have been changed in FY2023 to reflect the STEM Center's new strategic plan

funded a group of six SIUE GEOPATHS students and two faculty to travel to San Miguel, El Salvador, where they were hosted by the Universidad Gerado Barrios. The group learned about volcanic and landslide hazard mitigation and prevention in local communities, surface water quality, agricultural production, and coastal pollution.

# A Course Scaffold for Integrating Science and Culture: Exploring Faculty Adaptations Across Disciplines and Institutions (funded by National Science Foundation)

The STEM Center secured a new \$300,000 grant awarded in FY23 to integrate history and culture into undergraduate science courses to promote student critical thinking and perspective-taking skills. The grant is a collaboration of SIUE, Colorado State University, and the University of Texas-El Paso. Through this grant SIUE developed a new environmental sciences course in Sustainable Watersheds that was first taught in June 2023.

# Safe and Inclusive Field Schools (funded by National Science Foundation)

The STEM Center continued to operate a \$300,000 NSF Improving Undergraduate STEM Education award to investigate practices that promote student safety and inclusivity in archaeological research. This award supported STEM Center faculty to collaborate with researchers from Mississippi State University and University of Arkansas to research steps that field directors take to prevent and reduce sexual harassment and assault at field schools, as well as student perceptions of these steps. In FY23, the project's findings appeared in the scholarly journal *Humans*.

# Inclusive Excellence 3 (funded by Howard Hughes Medical Institute, private)

The STEM Center is leading SIUE's Howard Hughes Medical Institute's (HHMI) Inclusive Excellence 3 project, which was awarded funding in November 2023. This \$575,000 grant has supported 19 undergraduate STEM Student Ambassadors to develop faculty and staff-mentored action projects to improve learning in introductory STEM courses, which can be a barrier to student retention and advancement in their degree program.

# Engaging Girls in Forensic Science Career Exploration (funded by The Meridian Society at SIUE)

The STEM Center partnered with the Girl Scouts of Southern Illinois to bring over 100 girls to SIUE to learn cybersecurity and forensic investigation. Girls in grades 4-8 met students from the National Association of Colored Women's Club, Chemistry Club, and graduate students from the Management Information Systems Specialization of the School of Business as part of this three-week series. Girls learned laboratory safety, analyzing evidence, and staying safe online. Program evaluation showed that 95% of participants reported enjoying the program and learning something new about forensic science, and that 92% learned about a new STEM career.

#### **EDUCATION and COMMUNITY ENGAGEMENT**

#### **Robotics Competitions**

In August 2022, the STEM Center hosted the First Lego League Kickoff with community partner Southern Illinois FIRST Robotics. Over 50 children and adults visited the STEM Center and SIUE to learn about energy and how electricity moves through the power grid. In March 2023, the STEM Center hosted a BotBall championship for the region.

#### Staff Fellows – SIUE Residential Focused Interest Communities

For FY23, Program Coordinator Wonnacott-Stanley became the staff fellow for the Engineering Focused Interest Community and Program Coordinator Johnson became staff fellow for the Math & Science Focused Interest Community. The STEM Center hosted this group of undergraduates, mainly declared Engineering, Biology and Chemistry majors, several times during the year with engaging activities such as making liquid nitrogen ice cream. Students explored learning resources and heard about volunteer opportunities, upcoming events, and scholarship opportunities.

# **NASA Cougars in Control**

The STEM Center partnered with NASA Glenn Education Center to provide elementary students an opportunity to learn about Arduinos and automated systems on the space station. Thanks in part to a grant from NASA, every student designed a working model of a space station main computer. The students simulated a potential disaster and programmed integral systems to maintain life support while awaiting rescue. Students also had a live chat with a project manager for the Artemis mission about how NASA decides which are the most important systems.

# **STEM in Public Libraries Program**

The STEM Center partnered with the SIUE Office of Online Education and Outreach (OEO) for a second summer to offer hands-on STEM programming at area libraries. Staff from OEO joined STEM Center staff for the Oceans of Possibilities and Finding Your Voice programs. Finding Your Voice was a new program that featured STEM professionals who identify as historically underrepresented in STEM. Each activity introduced a book available in the STEM Center and the importance of the featured individual's discoveries to the world.

# **Lending Library Expansion**

The STEM Center added LEGO Spike Prime kits, the latest generation of LEGO Education robots, to the library. The STEM Center also welcomed Astronaut Sandra Magnus for a visit to our inflatable planetarium. By keeping materials current and increasing outreach efforts, the library's impact has increased from about 9,000 in the previous year to over 15,000 teachers, students, and community partners in FY2023.

# 11.3 Evidence of Support for IBHE "A Thriving Illinois," SIU System, and SIU Campus Strategic Planning

(I.) Support for SIU System Priorities (2021-2026 Strategic Plan)

#### **Goal Theme 1: Academic Innovation and Student Success**

The Center provides work and internship experiences in STEM for undergraduate and graduate students, and in collaboration with academic departments provides NSF Noyce Math undergraduate scholarships and NSF S-STEM graduate scholarships. Financial support through scholarships and internships increases the likelihood of retention and graduation of STEM students. Funded programs in environmental citizen science (ITEST Y-CITYSCI) and pollution (Environmental Health Investigators) connect graduate students with real-world opportunities for research and analysis. The Center's GEOPATHS program provides undergraduate research experiences, internships, professional skills training, and mentorship for undergraduates who

identify as underrepresented in the geosciences. Participation in undergraduate research predicts retention and success for underrepresented STEM students. The Center also supports annual cohorts of undergraduate students through the STEM Student Ambassador Program, funded by the Howard Hughes Medical Institute's (HHMI) Inclusive Excellence 3 grant. STEM Student Ambassadors develop projects to improve the student experience in introductory STEM courses at SIUE.

# Goal Theme 2: Anti-Racism, Diversity, Equity and Inclusion

The Center plays an important on-campus role in providing opportunities for those traditionally underrepresented in STEM fields. The Center program coordinator is a member of the Black Faculty and Staff Association and holds a position on the Student Engagement committee. The STEM Center faculty and staff regularly participate in professional development to ensure a welcoming and safe space for SIUE students, community members, program participants, and partners. Four Center faculty/staff and three of graduate students completed the NSF-funded Inclusive STEM Teaching Project course (ISTP), a six-week online course designed to improve awareness, self-efficacy, and ability of students, faculty, and staff to create inclusive STEM learning environments for their students. The STEM Center is listed as a Safe Zone on campus, with four faculty/staff members having completed the Safe Zone training (supporting the LGBTQ community) and registered as university allies. Additionally, two faculty/staff members have completed the Green Zone training (supporting military veterans), and one faculty completed the Global Zone Ally training (supporting international students). The STEM Center's community engagement primarily supports students and teachers of majority low-income and racial minority districts, with the goal of increasing access to STEM education and cultivating a diverse technical workforce in southwestern Illinois.

#### **Goal Theme 3: Community Impact**

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. In FY23, we partnered with a diverse group of community organizations for K-12 and public engagement: regional libraries, AARP, Army ROTC, Bethalto 8, Boy Scouts of America, Boys and Girls Clubs of Bethalto, Early Explorations Preschool, Edwardsville District 7, Emerson Electric, Fairmont City Christian Activity Center, FIRST Robotics, Girl Scouts of Southern Illinois, Good Dirt Composting Collective, Granite City 9 District, Head Start, Heartland Conservancy, Highland 5 District, Madison School District, St. Clair County Transit, Upward Bound Math and Science Collinsville, Watershed Nature Center, and Willoughby Heritage Farm. The STEM Center also partners with local city governments to create internships for SIUE students in environmental education and sustainability.

# **Goal Theme 4: Research, Creative Activity, and Partnerships**

The STEM Center leads interdisciplinary and transdisciplinary grant proposal teams on campus and with external partners each year, often serving as a mentor for early-career faculty members. Center-led grants are frequently national in scope and serve to connect SIUE faculty with other research institutions. External research partners in FY23 included Colorado State University, Illinois State University, Mississippi State University, Southern Illinois University Carbondale, University of Arkansas, and the University of Texas-El Paso. The STEM Center faculty is nationally

recognized for the quality of scholarship through frequent participation on national grant review panels and leadership positions in regional, national, and international professional societies. In FY23, STEM Director Locke was a Fulbright Specialist to Indonesia in STEM Education and served as a site reviewer for a national research center funded by the Science Foundation of Ireland.

# **Goal Theme 5: Faculty and Staff**

The STEM 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. The Center also presents and publishes research in collaboration with faculty and connects faculty with opportunities for community engagement with schools, youth organizations, and the public. The STEM Center supports (through the HHMI Inclusive Excellence grant) and co-facilitates an ongoing Faculty Learning Community based on the Inclusive STEM Teaching Project course, which was open to all SIUE faculty.

#### **Goal Theme 6: Infrastructure**

The STEM Center has a high return on investment from grant funding relative to state support of its faculty and staff. Grants provide indirect cost recovery for SIUE departments and the center. Fee-based programs partially support a center staff member who provides instructional support services to SIUE faculty. Central coordination for loans of STEM teaching materials reduces costs to academic departments.

(II) Support for IBHE "A Thriving Illinois" Goals

# Increase postsecondary credential and degree attainment to develop the talent that drives Illinois's economy.

The GEOPATHS program is increasing undergraduates' awareness of geoscience career pathways and providing training to create a more highly skilled geoscience workforce. The HHMI program is reducing barriers to advancement in STEM degree programs by improving the student experience in introductory STEM courses.

### Close the equity gaps for students who have been left behind by the higher education system.

The STEM Center is directly addressing the STEM workforce pipeline in Illinois by providing support to faculty and direct support to students to improve student outcomes and reduce equity gaps at the K-12, undergraduate, and graduate levels. We help improve academic preparation and increase interest in STEM so that Illinois students successfully transition from high school to higher education, and into careers.

#### Improve affordability, increasing access, and managing costs.

Center programs provide scholarships, internships, and graduate assistantships through grant awards and partnerships with communities. The NSF-funded Watershed Scholars program, a partnership with several academic units, is providing \$20,000 graduate scholarships for up to 10 master's students each year in biology, chemistry, civil engineering, environmental sciences, or geography.

# 11.4 Evidence of Support for Center/Institute Objectives

# IBHE Objective 1: Build and support interdisciplinary teams of SIUE faculty to conduct STEM education projects and seek and secure external and internal funding.

The STEM Center faculty team uses their extensive grant experience to lead and strengthen SIUE grant applications and pursue a range of research project types and topics. We prioritize collaboration with other units and often mentor new SIUE PIs to write competitive proposals. These efforts have led to substantial indirect cost recovery to the institution and to the academic units. Additionally, faculty members in academic departments receive summer salary from grants and use their returned indirect cost funds for professional development.

In FY23, we led or co-led 8 proposal submissions requesting \$3.861 million (Table below).

Internal Proposals	nternal Proposals Title	
Meridian Society (Stanley)	STEM Prime: Robotics Programming for All Pre-Kindergarten Students and Teachers	\$3,240
SIUE STEP (Blake)	Impacts of Gender Inclusive Biology Curriculum	\$13,125
External Proposals	Program/Title	\$ 3,665,049
National Science Foundation (PI Bracey)	BIORETS: A New Biological Research Experience Site for Teachers: OzARCC-WILD (Ozark Area Research on Climate Change & Wildfire)	\$36,000
National Science Foundation (PI Bracey)	DTI: A Culturally Responsive Model for Teaching Elementary Robotics	\$1,297,975
National Science Foundation (PI Blake)	Impacts of Gender Inclusive Biology Curriculum	\$340,528
National Science Foundation (Co-PIs Locke and Bracey)	Developing STEM Education Reform Leaders through a Multidisciplinary and Cross-Institutional Community of Transformation	\$1,580,000

National Science Foundation	BCSER: Exploring Garden-Based Learning to build a conceptual framework for science understanding among Middle School students	\$349,987	
Birth to Five Illinois (PI Johnson)	STEM Prime	\$60,559	

# IBHE Objective 2: Provide access to equipment, facilities, and expertise for STEM education research, and IBHE Objective 6: Develop and maintain a comprehensive STEM resource and equipment center.

In FY23, the STEM Center's Resource Center footprint grew substantially to 15,300 STEM educators, researchers, and students. The improved and expanded STEM Center inventory website provides area preK-12 teachers with online access to a wide variety of classroom resources and STEM activities. SIUE faculty utilize the Center's equipment and classroom space for university courses and research. The resources of the STEM Center provide a variety of ways to engage with STEM, expanding the reach of STEM teaching and learning in both formal and informal educational settings while also contributing to increasing STEM literacy in southern Illinois and beyond.

# IBHE Objective 3: Facilitate and promote innovations in SIUE undergraduate and graduate STEM teaching.

The STEM Center is leading an Inclusive Excellence program that has the primary goal to improve undergraduate achievement and completion for introductory STEM courses. Introductory STEM courses often serve as barriers to student advancement in STEM majors and may result in students switching out of STEM. The Center is working with an interdisciplinary team of faculty and STEM Student Ambassadors to study and redesign the introductory STEM experience at SIUE.

The STEM Center leads the SIUE GEOPATHS project, which has supporting 21 SIUE undergraduates who identify as underrepresented in STEM to participate in faculty-mentored research, field excursions to the Western U.S. and El Salvador, career seminars, professional skills training, and conferences. GEOPATHS support for these activities is the equivalent of \$10,000 per student.

# IBHE Objective 4: Enhance teaching and learning of STEM for pre-service and in-service teachers.

The STEM Center contributes resources and classroom space for Science 241a and Science 241b, Foundations of Science courses for SIUE pre-service teachers. New this year, the STEM Center hosted a Science Showcase for this class featuring activities and equipment designed to complement a 4<sup>th</sup> grade science textbook used in a local district. Each year the STEM Center provides tours, lesson plans, and materials to pre-service teachers for use in their coursework at SIUE and encourages and supports all SIUE students considering careers as STEM teachers. IN FY23, the STEM Center offered professional development for members of Kappa Delta Pi, a preservice teacher student organization.

The STEM Center provides in-service teachers with opportunities for professional development. In June 2023, STEM Center staff held a two-day workshop for a group of 15 middle school teachers as part of the NIH-funded SEPA project. Teachers learned how to implement *Environmental PhotoVoice*, a student-centered environmental health science curriculum developed as part of the project. Participating teachers received copies of this curriculum, as well as PurpleAir monitors, high-tech sensors that monitor air quality and share the collected data through an interactive website (map.purpleair.com). STEM Center graduate students helped install the PurpleAir monitors at schools throughout the Metro East. The real-time air quality data can be used by teachers in their classrooms. These teachers are using their PurpleAir monitors to engage students in exposure sciences and to develop new curricula based on the data.

# IBHE Objective 5: Develop, enhance, coordinate, and promote new and existing STEM-related outreach in the southern Illinois region to enhance STEM literacy.

We are a regional leader in STEM programming, partnering with more than 55 school districts and dozens of other organizations to reach students through lessons and activities. We provide outreach customized to the needs and interests of community partners. STEM Center outreach activities are aligned with Next Generation Science Standards and connected to district textbooks and curriculum goals. This ensures that the materials are relevant and complementary to what outreach participants are learning in their schools. We advertise learning opportunities through flyers, social media posts, and emails to STEM educators, parents, and administrators, prioritizing schools and communities with a high proportion of low-income families.

# 11.5 Evidence of Organizational Effectiveness

Organizational effectiveness in achieving predetermined goals (see Section 11.1, Performance Measures)

#### Research:

The STEM Center *exceeded* targets for two of three research performance measures: proposal submissions and scholarly presentations.

In FY23, Center faculty and staff gave 11 scholarly presentations to enhance the regional and national reputation of the SIU system (Table below). The Center submitted 8 external proposals requesting \$3.68 million. STEM Center FY23 revenue from grants and contracts was \$655,082, which was 63% of annual revenue.

Year	# Publications, Published*	# Publications, Submitted	# Scholarly Presentations	FTE Research Faculty
FY23	7	2	11	3.3
FY22	5	5	28	3.1
FY21	-	6	25	3.2

FY20	ı	7	8	3.2
FY19	•	6	11	3.2

<sup>\*</sup>Publications were not tracked in FY19-21 BOT reports.

#### Instruction:

The STEM Center exceeded the target for credit-bearing courses taught. Director Locke taught 25 credit hours for undergraduate and graduate courses in the Department of Environmental Sciences. This teaching is outside her scope of responsibilities and represents contributed time by the STEM Center to the College of Arts and Sciences.

The STEM Center Faculty Fellow program has been paused due to funding constraints.

# **Public Service:**

# The STEM Center exceeded all public service targets.

The Center outreach and community engagement staff delivered 84 outreach events, resulting in 6,239 contacts in the community. The STEM Resource Center and its lending library had 6,173 inperson visits, far exceeding the target of 790. We attribute the exceptionally strong number to improved outreach to SIUE students and educators in the community to raise awareness of Center services. We have also transformed public awareness by increasing our social media presence.

The Center developed new community partnerships with St. Clair Country Transit, AARP of St. Louis, Head Start, and Emerson Electric. We also hosted a new school partner, the AVID School in Springfield, Illinois, which sent 50 students in grades 7 and 8 to the STEM Center for activities and a campus tour.

The FY23 target was three professional development programs for pre-service or in-service K-12 teachers. The Center offered four professional development programs in FY23.

# 12. Institutional Assessment

12.1	Date of Last Review	May 2018 (final program review report received)		
12.2	Decision at Last Review	X 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 Center for STEM Research, Education, and Outreach

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State Appropriations	294,798	293,717	289,048	283,275	283,642
Course Specific Fees	3,950	3,675	1,725	3,975	4,775
Salary Transfer	5,080	475	1,425	1,957	12,128
Non-Recurring Funds	0	400	400	28,483	90,000
Activities Income	35,417	20,659	300	30,872	45,833
Grants & Contracts	619,665	921,632	951,996	1,229,674	674,371
ICR	75,696	61,844	92,210	156,526	75,281
Foundation	0	4,605	0	0	300
Total Revenues	1,034,606	1,307,010	1,337,103	1,734,761	1,186,33
Expenditures*					
Salaries	588,677	581,554	635,901	527,316	492,476
Grant Collaborators	14,304	14,554	46,333	67,557	43,751
Faculty Fellow	0	0	,0	0	0
Graduate Assistant	86,255	136,702	153,719	115,435	46,723
Student Interns	0	0	0	0	0
Student Wages	14,774	18,563	15,220	13,643	12,637
Travel	27,429	26,688	1,528	11,141	21,251
Equipment	3,649	7,515	15,651	40,994	6,936
Commodities	37,831	32,895	13,346	12,239	19,744
Contractual Services	224,928	194,682	134,705	145,802	164,319
Awards	950	5,850	3,175	511	21,150
Scholarships	0	0	57,500	69,200	115,000
Automotive	130	0	0	278	720
Telecommunications	4,641	5,000	5,002	4,353	4,747
Benefits	52,688	92,421	117,054	93,949	73,353
Participant Support	162,907	158,247	55,062	77,286	77,088
Nonmandatory Transfers	11,4023	58,109	110,540	83,930	170,422
Total Expenditures	1,333,185	1,332,780	1,364,735	1,263,633	1,270,31
Revenue Minus Expenditures	(298,580)	(25,770)	(27,631)	47,1128	(83,985)
1 to 101 do Williao Experientares	(200,000)	(20,110)	(21,001)	77,1120	(00,000)

<sup>&</sup>lt;sup>1</sup> The cyclical nature of grants means that grant revenue recorded in a given fiscal year has expenditures in subsequent years. This leads to a pattern of surplus followed by deficit in the annual reporting. For example, in FY2020 the Center received a large three-year federal grant as revenue in that year, but then had expenditures associated with that project in FY2021-FY2023.

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
Tenured/Tenure Track Faculty	1	1	1	1	1
Research Faculty	3.3	3.1	3.2	3.2	3.2
Non-Tenure Track Faculty	0.1	0.8	1	1	1
Staff	3	3.2	4	4	3
Total Staffing	7.3	8.1	9.2	9.2	8.2

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

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

1.	Reporting Institution	Southern Illinois University Edwardsville		
2.	Center/Institute	SIUE East St. Louis Center		
3.	Date	March 1, 2024		
4.	Director	Timothy Staples, EdD		
	4.1 Telephone	618-482-6904		
	4.2 E-mail	tstaple@siue.edu		
5.	Year Established	(1966)		
6.	Illinois State Statute (if pertinent)	(if created by Illinois state statute, list the specific statute by number and title; otherwise, list N/A)		
	(ii portinont)	Trumber and title, otherwise, list N/A)		
7.	Reporting Unit	Office of the Provost and Vice Chancellor for Academics		
	1 3 -	-		
8.	Туре	Activity		
	,,	(check all that apply)		
	Instructional	Х		
	Research			
	Public Service	X		

<sup>\*</sup> 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. Additionally, The Center partners with the Illinois Community College Board to provide learning services, and resources for the community.

#### 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

The plans for the Advisory Board structure are being presented to the Provost and Vice Chancellor for Academic Affairs, to present to the Chancellor for guidance and approval

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%	Establish a new
		quarterly meeting
		structure for all
		grants to insure
		compliance with
		enrollments and
		service
		implementation
Increase the number of students being served in	-In collaboration	-A successful
grant programs and self-funded programs.	with the SIUE	model for
	STEM Center,	partnership with
	establish a one	the STEM Center
	week STEM	to implement K-8
	Summer Program	programming on
	for 4 <sup>th</sup> Graders	the East St. Louis
	-Expand the new	Campus.
	Middle School	-An established
	Summer Program	middle school
		program that
		serve as a pipeline
		for SIUE TRIO
		programs as well
		as collegiate
		matriculation.
-Increase grants awards by partnering with SIUE	-Participate in at	Advance the
Faculty, and other Centers in the university and	least 2 grant	impact of the SIUE
other System Centers	submissions in	East St. Louis
	partnership with	Center within the
	an SIUE Faculty	area, university,
	Member and/or	and system.
	Center	
Increase the partnership with the SIUE School of	-Establish a faculty	Strengthen the
Education, Health, and Human Behavior to	affiliate	ability for the East
established greater educational opportunities for the	appointment in to	St. Louis Center to
community, and an Urban Education Research	support Early	be competitive in
Agenda.	Childhood and	both service and
	Secondary	research base
	Education	grants
	Programs.	

<sup>\*</sup> 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 (FY 23)

# **Building Futures**

- Numerous students secured valuable internships which evolved into sustainable careers.
- Building Futures has actively collaborated with community partners, including St. Clair and Madison County housing, to address critical needs such as transportation and housing.
- Five students successfully obtained their high school diplomas under the mentorship of the program. Additionally, three youths participants.

#### **Head Start/Early Head Start**

- SIUE Head Start staff was selected to participate in first virtual UCLA Health Care Institute's "Staff and Organizational Wellness Building a Healthier Workplace Through a Coordinated and Strategic Approach" Training Program.
- August 25, all staff participated in an off-site "Journey to Wellness" Retreat. Staff
  enjoyed a presentation from a local wellness expert. Staff participated in planning
  wellness goals for each of their centers and enjoyed a visit to a resource area
- In response to the on-going staffing shortage the program's focus continues to be on recruitment and retention of staff. In these efforts the program's current staff was provided with one-time federal and state child care bonuses.
- Participated with Health Services Advisory Committee (HSAC) meetings with SIU-C Head Start
- December 2022- Jackie Joyner Kersee Head Start Center families participated in a financial literacy graduation. The (literacy) program focused on building a better financial future, beginning with understanding the basics of personal finances, types of financial institutions, opening and maintaining a Bank Account and understanding money. Upon graduation, each family received cash to establish a Great Start account for their child/dren, the parent received a cash stipend, and a personal banker for as long needed. Each financial literacy program last for a 10-week period.
- December 2022-all Head Start/Early Head Start centers were provided with toys for each enrolled child. Toys were courtesy of local Toys for Tots Drive

#### Goals for 2023-2024

- Attract, recruit and retain qualified staff.
- Increase and maintain enrollment at funded enrollment levels
- Ensure proper oversight of the eligibility, recruitment, selection, enrollment and attendance process of children and families (ERSEA)
- Provide Head Start/Early Head Start services in new location located in O'Fallon, IL

### **Collinsville Upward Bound Programs**

- Served 71 participants (Target goal 60 students)
- 69% of participants were first-generation & low-income (Target goal 67%)
- 83% of participants maintained a 2.5 or better GPA (Target goal 75%)

- 74% of graduating seniors enrolled in post-secondary education by fall semester after high school graduation (Target goal 65%)
- 19% of graduating seniors earned proficient score in SAT Verbal (560) and SAT Math (560) (Target goal 20%)
- 58% of graduating seniors completed rigorous high school curriculum (4 years English, 3 years math, 3 years science, 3 years social studies, and 1 year foreign language) (Target goal 20%)
- Sophomore Aiden M. spoke at SIUE Board of Trustees Meeting about his experience during Industrial Engineering week during the summer academy.
- Director & UB student ran an activity table at Collinsville STEM Day for all third graders in district on September 21 (over 300 children attended).
- Two seniors were named Illinois State Scholars for Class of 2024.
- Senior student was selected as a finalist for the QuestBridge National College Match.
- 60% of our Collinsville HS students made the HONOR ROLL First Semester 2023-2024. Students must have a 3.4 or above GPA.
- Junior student completed SIUE ENG112 African American Literature for college credit and earned an A.
- Collaborated with Southern IL University Edwardsville (SIUE) Industrial Engineering
  Department to provide a week-long summer engineering camp to expose students to
  careers in industrial engineering and maybe instill a desire to major in Industrial
  Engineering.
- Currently collaborating with SIUE Biology Department Assistant Professor Danielle N.
   Lee in The Urban Biomonitoring Project that involves outdoor field research and lab research experiences for UB program participants.

#### **Veterans Upward Bound**

- An open house and Veterans Resource Fair was held in August netting a total of eighteen new participants.
- The program moved to a new office suite in Building B with better access to The Learning Resource Center.
- The mobile computer lab is now being used at The Joseph Center in East St. Louis and The Salvation Army Veterans Residence in downtown St. Louis to provide Basic Computer Skills Workshops.
- A mini computer Lab has been established at The Veterans Community Project in St. Louis to provide basic computer skills and basic educational skills.
- 72 Participants

# **Library/Learning Resource Center**

- Provided 25,358 free prints
- Gave away 2000 diapers as a distribution site for the Metro East Diaper Bank
- 567 people participated in programs
- Signed up 107 people for library cards
- Offered a range of programs for all ages: Movies, Book Club, East St. Louis Historical Society speakers, Health and Nutrition, Financial Literacy, Story Time, Crafts
- Maintained community partnerships including with Carrollton Bank, U of I Extension Services, East St. Louis Historical Society, SIHF Healthcare, Broadband READY

# **Performing Arts After School Program**

- Student Spring, Summer and Holiday recitals showcased music, dance and art
- Student performance at the Annual Dr. MLK Luncheon
- Dance students invited to audition at the St. Louis Muny Opera
- Music students invited to perform at the Annual NAACP dinner and The Strass Studio Series Summer Concert at the Kirkwood Performing Arts Center for a tribute to the Rolling Stones.

# **Project Success**

- New Program Director, Tiana Montgomery, began her position on June 13, 2022.
- After a 2-year hiatus due to the COVID-19 pandemic, the Project Success Program reopened on Monday, August 15, 2022.
- Program Director, Tiana Montgomery, visited families' homes in November delivering \$100 Schnucks gift cards for Thanksgiving. The gift cards were donated by First Baptist Church of Chesterfield.
- Prior to Winter Break, the East St. Louis Fire Department Local 23 members visited the program site to delivering toys, shoes, and coats to the students in the Project Success Program.

# **Upward Bound East St. Louis Based**

- Nine of our students received full ride scholarships to Tennessee State University
- Upward Bound 3<sup>rd</sup> Annual Blood Drive and Vails Brother's Food Truck. 21 blood donations with our goal being 15 which we exceeded. We had more people than we could serve due to limited space on blood drive bus.
- New 5-year Grant-EC is now East St. Louis and Charter School and MLC is Madison/Lovejoy/Cahokia

The programmatic engagement and services in FY21-22 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."

1 <u>1</u> .4 E	Evidence of Support for Cer	nter/Institute Objectives
All pr	ograms submit an extende	d annual report, as well as information from staff evaluations.
11.5 E	Evidence of Organizational	Effectiveness
All pr	ograms submit reports to g	granting agencies.
Institut	ional Assessment	
12.1	Date of Last Review	2021
12.2	Decision at Last Review	x 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)

12.

The committee rates the East St. Louis Center as **satisfactory**. The center shows particular strengths in providing resources to the communities it serves and collaborating with a number of external organizations. The committee also commends the dedication and level of care shared by the center's leadership. Nevertheless, the committee also identifies some areas for growth related to transparency, consistency, and collaboration, as well as high turnover that the center has experienced in recent years. The committee believes that addressing these issues through an advisory board and strategic plan would help maximize the services that the center provides.

# **RESOURCES:** East St. Louis Center

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State Appropriations	681,625	762,138	1,252,054	740,715	827,844
Income Fund	485,833	274,507	437,366	693,896	767,558
Grants & Contracts					
Head Start/Early Program	9,485,011	9,612,821	10,624,298	11,873,960	11,538,375
Project Success/East St. Louis	50,260	ı	16,888	159,529	150,435
Upward Bound (MLC)/BEM	370,801	370,801	124,041	358,262	328,858
Upward Bound (EC)	686,293	686,293	354,197	663,085	623,347
Upward Bound Math & Science Center	288,933	263,655	305,171	279,162	264,141
UB Math and Science-Cahokia & Madison		297,601	297,601	287,537	275,155
UB-ESTL High School Academy	297,601	268,357	380,824	287,537	275,155
Veterans Upward Bound	297,601	267,450	427,207	287,537	275,155
Child & Adult Food Care Program National School Lunch Program Summer Food Service Program ISBE Healthy Communities FY18 IAC-SIUE ESTLC Operating	258,776	225,958	107,666	303,290	560,329
Support	0	0	0	0	-
Summer Food Service Program	-	3,750	1,335	-	12,131
			-	-	22,271
Building Futures	99,663	183,976	150,080	119,385	123,635
Kindergarten Readiness Camp			-	-	36,156
ICCB	674,904	674,904	609,867	674,904	844,963
ICCB Contruction Project			902,000		
Post-Secondary Completion Strategies Program					
Preschool for All			-	-	300,000
ESL STEM & Energy Constellation			-	-	366
Total Revenues	13,677,300	13,892,211	15,990,594	16,728,798	17,225,874
Expenditures*					
Misc**	279,268	273,780	804,609	44,272	60,005
Salaries	5,858,461	6,295,359	4,525,981	7,396,047	7,156,983

Fringes	2,326,387	2,768,809	421,610	3,740,996	3,781,576
Travel	41,189.65	37,171	4,794	20,373	41,379
Equipment	148,726	169,133	908,963	44,869	92,509
Commodities	254,040	271,140	189,033	230,331	187,770
Contractual Services	1,991,403	2,049,262	3,008,565	791,292	1,469,428
Operation of Auto	91,884	37,649	84,935	1,901,113	2,019,620
Telecommunication	392,807	297,537	193,468	71,635	66,985
Indirect Cost	979,496	901,279	1,016,737	523,251	886,552
Total Expenditures	12,363,662	13,101,118	11,158,695	14,764,178	15,762,807
Revenue Minus Expenditures	1,313,639	791,093	4,831,900	1,964,621	1,463,067

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

<sup>\*</sup> 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.

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

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

1.	Reporting Institution	Southern Illinois University Edwardsville
0	Combon the objects	Facility was and all December 3.
2.	Center/Institute	Environmental Resources Training Center
3.	Date	2-28-24
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)	III. Rev. Stat., Ch. 144, Sec 691, et seq
7.	Reporting Unit	School of Engineering
8.	Туре	Activity (check all that apply)
	Instructional Research	(Check all that apply)
	Public Service	X

<sup>\*</sup> 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 includes 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 our nation's water sources.

# 9.3 Objectives

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

Provide continuing education and certification exam preparation for in-service students.

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

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

Deliver online/virtual courses to disseminate the knowledge and skills needed in the water treatment industry to operators and the 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

Wastewater Collections Supervisor, City of Wentzville, MO

\*Ed Matecki has retired and was to be replaced by the Assistant Facilities Director (Donte' Harris). Donte' has since left SIUE. When the new Assistant Facilities Director is hired, the ERTC will approach that individual as a replacement (pending SIUE board approval).

\*\*Patti Schaake has also asked to be removed from the Advisory Board after moving to Florida. The Advisory Board will submit a replacement nominee to the Governor.

10.2 Number of Meetings (In This Year) 1 (May 16, 2023)

#### 11. Annual Performance

#### 11.1 Performance Measures \*

Mea	sure	Target for Year	Results in Year
1.	Maintain enrollment in one-year program	20-30	13
	between 20-30 students.		
2.	Maintain a pass rate of greater than 80% on	80%	61%
	the state certification exams.		
3.	Maintain an 80% job placement rate for	80%	69%
	students within 12 months of graduation.		

<sup>\*</sup> 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)

Although COVID restrictions were lifted in April 2022, the initial enrollment for the 2022-2023 class was low at 14 students. One student transferred from the ERTC Program to the SIUE School of Business over winter break. All 13 remaining students completed internships and all tasks required for graduation.

Revenue remained strong for FY23. However, Revenue minus expenditures was in the red. Revenue minus expenditures for the fiscal year ended at -\$7,285. The deficit was created by two account sweeps performed by the University on the ERTC's non-state account. A sweep was conducted in July 2022 for \$25,000 and an additional sweep was conducted in January 2023 for \$26,543 for an annual sweep total of \$51,543. Without the two sweeps, the ERTC would have tallied a revenue minus expenditures of \$44,258. This adjusted net revenue is in line with the past performance of post-COVID years.

In 2019, new rules from the Illinois EPA implemented a recertification process for CCCDI licenses. During the past few years, both Kim Bateman and Ben Goeke have worked to create an online recertification module via SIUE's Blackboard. We've coordinated with ITS and Educational Outreach and have a plan in place for the CCCDI Recertification launch. The module will become available on July 1, 2023. This should result in approximately \$100,000 of additional revenue per year.

The new course offerings that were implemented in FY22 were continued in FY23. The Wastewater Short School in Peoria has proven to be very successful and our relationship with the City of East Peoria allows us to secure an excellent training venue at no cost. The additional Class K virtual preparation course that was added has also been successful. New IEPA regulations require Class K operators to retest every three years. This should provide a continuous stream of students for our preparatory course.

The ERTC continues to self-promote our Water Quality Control Operations Program whenever possible. In October 2022, the ERTC hosted two environmental science classes from Hillsboro High School. Approximately 50 students attended and participated in drinking water and wastewater training sessions and a tour of the ERTC pilot plant and SIUE wastewater treatment plant. For three consecutive Saturdays in the Spring, the Director attended the Career Pathways Showcase. These events cater to students interested in vocational/trade schools and include

Eureka High School, North Tech High School, and South Tech High School in Missouri. The ERTC also attended the TRIAD High School Career Day in March 2023 and UMSL's Career Pathways Exhibition in June 2023.

The ERTC interviewed four candidates for the position vacated by Kim Bateman. In October 2022, Ben Goeke was hired as the Director of Cross Connection. He became certified in October and began teaching in February. He has done an excellent job in getting up to speed, including coordinating with Belleville's Local Union and Chicago's Local Union about collaborations for multi-state cross connection certification courses and the development/implementation of the CCCDI recertification modules.

Kurt Neuhaus retired from the WQ Control Training Specialist position in May 2023. He held the position for 15 years and previously worked at SIUE's Wastewater Treatment Plant. The ERTC began interviews in June 2023 for Kurt's replacement.

The ERTC/IEPA Interagency agreement was renewed in October 2021. It was supposed to be a three-year agreement, but the final signed copy had an incorrect end date (September 2023 instead of September 2024). IEPA has been notified and the ERTC is in the process of working with IEPA to either have the dates amended or propose a new agreement that will cover the one-year gap.

During FY23, the ERTC was able to make a major pilot plant upgrade through the ERTC/IEPA Interagency agreement. Two high service pumps with two VFDs were purchased and installed by Facilities for our drinking water treatment train.

# 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 interagency agreement for the period of October 2021-September 2024 was executed on 11/5/21. This agreement included funding in the amount of \$ 1,144,806 over the three-year period. Unfortunately, when the agreement was executed, the end date was incorrectly recorded as September 2023 instead of September 2024. The ERTC is working with Research & Grants, as well as IEPA, on an extension to cover the third year.

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 drinking water, wastewater, and cross connection regulations.

The ERTC supports, presents, and assists in the development of the annual conferences for the Illinois Water Environmental Association (IWEA), Illinois Potable Water Systems Operators

Association (IPWSOA), Illinois Rural Water Association (IRWA), and the Illinois Association of Water Pollution Control Operators (IAWPCO). Additionally, the ERTC supports local organizations (such as SWCWPOA and MISKA) by providing training sessions at their meetings, along with providing venues and sponsorships.

The ERTC Director of Wastewater Operations is the official Responsible Operator-In-Charge (ROINC) for the SIUE wastewater treatment plant. The ROINC is an IEPA required position of responsibility.

The ERTC Director and Director of Drinking Water have been assisting Facilities Management on UCMR5 analyzation and reporting.

The Director of the ERTC is an Advisory Board Member on SIUE's Climate and Sustainability Advisory Board (CASAB).

The Director of the ERTC participated in a semester long series and was a guest speaker for the Environmental Friday's speaker series conducted by Desmond Murray of Andrews University.

The ERTC had several collaborations with main campus throughout the fiscal year. We collaborated with the Civil Engineering department to accommodate a Penn State University professor with a tour and explanation of the program. We also hosted a session for a professor group from Mainz University (Mainz, Germany) to discuss water and wastewater treatment. Additionally, the ERTC continued hosting two sessions of training for high school students during the School of Engineering's Summer Camp program in June.

# 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 eighteen years.

The ERTC continues to work with Job Centers in Illinois and Missouri as a WIOA approved program. Each July, ERTC staff visit eleven job centers in central/southern Illinois and Missouri to promote the ERTC's one-year program. Current agreements exist with Madison County (IL), St. Clair County (IL), Macoupin County (IL), Marion County (IL), SLATE in the City of St. Louis (MO), and St. Charles County (MO). The Marion County (IL) relationship was established for a Class of 2023 student.

The IEPA has supported the ERTC financially by providing operating funds for over 40 years. During this fiscal year, the current agreement runs from October 2021-September 2024.

The Metropolitan Sewer District (MSD) of St. Louis hires ERTC graduates almost exclusively when recruiting new plant operators. MSD has continued their scholarship program for minority and female students enrolled in the one-year Water Quality Control Operations Program. Currently, two scholarships are offered each year and we are currently discussing expanding to three scholarships.

American Water Works in both Illinois and Missouri have begun to show serious interest in our program. Meetings have been conducted with Missouri Human Resources personnel and the

Director of Diversity and Inclusion in Illinois. We have established a pipeline from ERTC to American Water for the employment of our students. In the summer of 2022, three ERTC graduates were hired in Missouri American Water's laboratory and two students were hired as operators at Missouri American Water's Central Plant. Additionally, discussions are being made on creating scholarship opportunities like those that currently exist with MSD.

The ERTC continued our partnership with the Edwardsville Fire Department by making our auditorium and confined space training apparatus available for their training purposes. The ERTC has worked with the Fire Department for summer scheduling to avoid conflict with the one-year program.

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 from water and wastewater organizations include:

IAWPCO Scholastic Award (2 students)

MISKA Scholastic Award (3 students)

SCWPOA Scholastic Award (2 students)

# 11.5 Evidence of Organizational Effectiveness

The ERTC graduated 13 students in FY23 (down three students from FY22). The ERTC has seen class size on the lower end of average since the pandemic's end. An attempt has been made to attend/hold additional promotional events, but self-promotion can prove difficult to work into schedules.

The ERTC one-year program continues to provide a high-quality training in water treatment technology to future water and wastewater professionals. Pass rates for the drinking water certification (57%) and wastewater certification (57%) in Illinois were low this year. This was still more than double the average pass rate (27%) for the C exam in IL, but well below the ERTC's internal targets. Pass rates in Missouri were exceptional with a 100% pass rate in drinking water certification and a 100% pass rate in wastewater certification. However, it is important to note that only three students elected to take both Missouri exams this year. The overall pass rate between the two states was 61%. For the year, this pass rate did not meet the external credential attainment target set forth by Madison County WIOA funding (66%). However, this target operates on a five-year average instead of annually, so the ERTC is well above the target (78%).

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. They have also been very accommodating in hosting special testing sessions for our students.

Job placement statistics continue to be strong with 69% of students finding jobs within six months of program completion (9 of 13). Once again, the result did not meet the Madison County WIOA target of 74% for the year. However, our five-year average of 85% does meet the target.

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 2022 through June 2023, the ERTC trained 1,074 students and awarded 34,201 continuing education and classroom clock hours. This showed a slight attendance decrease from the previous fiscal year (1,168 students → 1,074 students) and a decrease in hours awarded from the previous fiscal year (37,715 hours → 34,201 hours). The number of students decreased slightly due to a year without partnering with IRWA for collaborative trainings. The ERTC was working short-staffed for the year with two separate vacancies and the added burden of covering CCCDI training throughout the state by the Director and Director of Drinking Water didn't leave time for a collaborative effort. The collaboration will be reintroduced in FY24, and the impact of students served should be evident. The hours decrease is mainly due to a decrease in enrollment of our one-year Water Quality Control Operations Program. Each student accounts for 1,450 hours. Both numbers are substantially higher than typical ERTC results. The addition of virtual options (as well as an additional Wastewater Short School) has significantly boosted results the past two years.

#### 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 agreed 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 online offerings, lab certification and potential contracting, new technology/equipment for students, social media presence, and the pursuit of additional student loan options. A Program & Center Review Meeting was held via Zoom on October 29, 2020, to discuss the recommendations.

# **RESOURCES: ENVIRONMENTAL RESOURCES TRAINING CENTER**

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State Appropriations	0	0	0	0	0
One-Year Program	101,558	96,268	139,696	147,292	146,909
Grants & Contracts	280.978	163,343	275,396	505,881	304,504
CCCDI Training/Symposium	102,790	84,065	73,410	80,215	111,745
CCCDI Certification	82,232	83,902	94,913	59,530	82,825
Night Courses	22,950	32,300	10,555	22,095	37,080
Workshops	137,009	163,155	103,822	65,250	88,950
Correspondence Courses	16,755	12,705	4,950	N/A	N/A
Total Revenues	745,272	635,738	702,742	880,263	772,013
Expenditures*					
Full Time Salaries	441,695	420,550	457,276	477,687	432,788
Adj Staff & Student Workers	38,218	33,928	48,773	24,289	41,480
Telecom/Communications	5,606	6,141	6,230	6,491	6,514
Commodities	30,926	33,987	33,695	46,328	79,914
Equipment	9,898	28,789	22,176	13,033	30,797
Contract Services	92,637	38,600	63,463	91,117	48,570
Permanent Improvement	0	0	0	242,000	N/A
Computer	200	0	0	0	0
Travel	35,863	24,701	18,941	24,930	22,212
Fringe Benefits	45,396	NA	NA	NA	NA
Refunds	575	525	8,665	1,275	N/A
Transfers Out	51,543	0	0	0	0
Total Expenditures	752,557	587,221	659,219	927,150	662,275
Revenue Minus Expenditures	(7,285)	48,517	45,523	(46,887)	109,738

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

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
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, 2022 - June 30, 2023

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

1.	Reporting Institution	Southern Illinois University Edwardsville
2.	Center/Institute	GeoSpatial Mapping, Applications, and Research Center (GeoMARC)
3.	Date	February 28, 2024
4.	Director	Randall S. Pearson
	4.1 Telephone	618-650-2278
	4.2 E-mail	rapears@siue.edu
5.	Year Established	July 1, 2021
6.	Illinois State Statute (if pertinent)	N/A
	,	
7.	Reporting Unit	Graduate Studies and Research
8.	Туре	Activity
	Instructional	(check all that apply)
	Research	X
	Public Service	Х

<sup>\*</sup> 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

GeoMARC (formerly LASA) was created in 2021 to foster multidisciplinary and multi-institutional collaborations that develop and promote the use of advanced geospatial technologies to conduct, lead, and influence research and innovative solutions to meet the needs of both private industry and the public sector. GeoMARC capitalizes on the specialties of its multi-disciplinary staff that encompass a wide range of geospatial expertise that includes remote sensing and digital image processing, machine learning, computer modeling, transportation network analysis, geographic information systems (GIS), and solution automation to address both cultural and environmental issue facing this world.

GeoMARC is evolving into a geospatial "think tank" that operates similar to a teaching hospital. Similar, in that GeoMARC provides technological and intellectual support to local and regional communities by engaging in geospatially related projects, educating the next generation's workforce, and providing solutions to geographic problems through applied research and development. Although GeoMARC has grown to 8 full-time employees, students are the center of everything we do.

# 9.2 Mission

GeoMARC's mission is to provide the university, the community, industry, and governmental agencies with access to innovative geospatial analytics/solutions for addressing spatially related problems.

# 9.3 Objectives

- 1. Foster partnerships with other universities, government agencies, and industry.
- 2. Pursue external funding.
- 3. Provide real-world experience and mentorship to undergraduate and graduate students through externally funded research partnerships.
- 4. Support Student Retention.
- 5. Bring together academic researchers, educators, and industry experts to share ideas through regional workshops, seminars and conferences.
- 6. Promote the ethical uses of geospatial technologies.
- 7. Create and foster multidisciplinary collaborations across SIUE and the SIU system.
- 8. Develop partnerships with local businesses and government agencies to produce high impact community engagement projects.

# 10. Advisory Board

# 10.1 Advisory Board - Membership

Internal Members
Dr. Jerry Weinberg Associate Provost and Dean, Graduate School
Dr. Cem KaracalDean, School of Engineering
Dr. Earleen Patterson Associate Vice Chancellor for Student Opportunity,
Equity, Diversity, and Inclusion
Dr. Carrie Butts-Wilmsmeyer Director, SIUE Center for Predictive Analysis
Dr. Jim Hanlon Associate Professor, SIUE Dept. of Geography
Dr. Didi Martinez Associate Professor, SIUE Dept. of Geography
Dan Chase Director, SIUE Information Technology Services
External Members
Aaron Young Sustainability Planning Manager at East-West Gateway
Brent Guttman Illinois IDNR, Office of Mines and Minerals
Bill Miener Director of Information Systems and Services,
Edwardsville Community Unit1 District 7 Schools
Justin Donathan Research & Partnership Manager – Technology
Entrepreneur Center / T-REX
Dean Budzow Geography Professor at Lincoln Land Community
College

10.2 Number of Meetings (In This Year) \*\* See comment below

For FY23, the Director of GeoMARC met with all but one of the GeoMARC Advisory Board members (individually and in small groups). Dr. Pearson (and staff) met with several of the Board Members on multiple occasions for technical discussions, sharing of ideas, and future planning. In some cases, Dr. Pearson interacted with Board Members more frequently due to similar areas of interest, expertise, and overlap of the circles in which they walk. As such, it became obvious that this in-person small group approach was much superior to the first year's Zoom meeting approach with respect to feedback and true subject matter engagement. GeoMARC is currently trying to determine the most effective approach for gathering important feedback from its Board on Center operations going forward.

#### 11. Annual Performance

#### 11.1 Performance Measures \*

	errormance ivieasures	T	T.
Mea	sure	Target for Year	Results in Year
1.	Develop grant proposals as PI and/or	9	16
	collaborator with SIUE or external partners		
2.	Active projects underway supported by grants	6	12
	and contracts		
3.	Research collaborations with other	5	6
	universities.		
4.	Research collaboration with other SIUE	5	8
	programs/units.		
5.	Research collaboration with industry partners	5	11
	and other government agencies.		
6.	Conference, industry, and invited	3	5
	presentations		
7.	Train students in geospatial analysis through	4 graduates	12 graduates
	experiential learning opportunities.	4 undergrads	9 undergrads
8.	Exposure of underrepresented students to		
	Geospatial Technologies careers through guest	2 guest lectures	10 guest lectures
	lectures.		
9.	Engagement in Community-based projects.	3	4
	, , , , ,		
10.	Final reports/presentations and research	5	6
	publications		

<sup>\*</sup> 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 (FY23)

The GeoSpatial Mapping, Applications, and Research Center (GeoMARC) continued to focus its efforts in FY23 in basic three areas: (1) pursuit and maintenance of partnerships/relationships that led to external funding related to geospatial research, service, and instruction, (2) the expansion and support of relationships within the SIUE system related to geospatial technologies, and (3) an expansion of GeoMARC's role in supporting the underserved population's impact on the St. Louis geospatial ecosystem.

1.1 In FY23, GeoMARC continued to foster its 27-year relationship with the Illinois Department of Natural Resources. Along with significant improvements to GeoMARC's web-based mapping of underground mines across Illinois, GeoMARC continued to modernize and more heavily utilize advanced technologies for ground-based mine subsidence surveying. This included integrating the latest geospatial mapping and database technologies, along with the use of Inframetric Synthetic Aperture Radar (InSAR) and temporal sequencing of inhouse collected LiDAR. These updates provided evidence of GeoMARC's continued

- commitment to IDNR's long term mapping strategies and helped procure two additional three-year contracts (7-1-2022 through 6-30-2025) with IDNR totaling over \$1.28 million.
- 1.2 Equally important, was the continued development of a significant relationship with DoD's National Geospatial-Intelligence Agency (NGA) located just across the river in St. Louis, Missouri. In FY22, GeoMARC signed a five-year agreement with NGA for the production of 1:50K scale topographic maps used by the US military for potential movement of ground troops. GeoMARC (SIUE) is one of only two universities chosen to participate in this student-driven mapping program. During FY23, GeoMARC staff and student worked on two contracts totaling over \$300,000, producing maps for Cuba, Russia, Saudia Arabia, and Yemen. During FY23 a total of 10 students were fully trained in NGA mapping protocols, preparing them for a direct path into NGA. Through this project GeoMARC produced over 80 military maps for NGA. GeoMARC also continued to collaborate with NGA through its 5-year CRADA, which is related to global food security.
- 1.3 Lastly, GeoMARC's recent collaboration with AMEREN Electric has continued to pay dividends through the development of a long-term relationship with the Energy Power Research Institute (EPRI) located in Washington DC. In FY22 GeoMARC began working closely with AMEREN Electric and EPRI to develop drone-based analytics along energy company rights-of-ways for assessing environmental sustainability and environmental diversity. This relationship evolved into a \$133,000 R&D contract with EPRI (straddling FY22 and FY23) and a follow-on contract of \$100,000 for FY23/24. In all, during FY23 GeoMARC procured external funding from 16 grants/contracts totaling \$2.2 million for the next three years. Ultimately, it is through these external funding sources and contracts that students gain the real-world experiences needed to succeed outside the university system.
- 2. GeoMARC continued to foster its relationships with programs and units within SIUE. In FY23, GeoMARC intensified its collaborative relationships with C-PAN, BLI, Chemistry, Biology, Environmental Science, Geography, Engineering, the Center for Crime Science, and the Office of Educational Outreach. GeoMARC is on grants with, or is supporting in some way, development activities with each of these units. Of particular note is the support that GeoMARC gives to the Geography Department and to geospatial technologies across campus. With this said, GeoMARC personnel continue to administer all geospatial software across campus. This is a significant undertaking and involves the management of 100s of individual software licensing for faculty and students from all departments and programs across campus. GeoMARC personnel also manage the hardware and software for the Geography Department's GIS lab and teach critical advanced geospatial courses for the program (for a the major and the minor). GeoMARC has developed and is maintaining a broad footprint across campus with respect to geospatial technologies.
- 3. Finally, in FY23 GeoMARC broadened its uniquely supportive role in helping expand the diversity in the local area workforce with respect to underserved populations. The geospatial industry has historically been (and continues to be) white and male oriented. Industry and government agencies have taken notice and are actively recruiting minorities in the geospatial field. With this in mind, GeoMARC has taken an active role in attempting to provide the foundation for a long term, highly diverse geospatial workforce in the St. Louis area. Certainly, GeoMARC continues to focus on (and fund) a highly diverse internal student workforce. Equally important however, is GeoMARC's new role of providing

geospatial education support to the underserved populations in the St. Louis area. In FY23, GeoMARC began working through T-REX on an NGA funded after school and summer program designed to introduce geospatial concepts to K-8 students in North St. Loius. GeoMARC employees have developed a close working relationship with Unleashing Potential (a well-established after school STEM program) to train UP staff and to develop curricula and supporting materials for this newly conceived geospatial program. The ultimate goal of NGA in supporting this program was the development of a transferable geospatial education model that could be used across the country. GeoMARC and SIUE are the only ones in the area that are truly working in this space.

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:** Through the "teaching hospital approach" mentioned in section 9.1, GeoMARC trained 21 students (FY23) through experiential learning tied to funded projects from NGA, Bayer CropScience, Illinois Department of Natural Resources, Electric Power Research Institute, and the Illinois State Library. Students get practical experience solving real world problems with technology. These students were funded through internships, student work, and graduate assistantships. It is these types of experiences that help prepare students technically, mentally, and socially to be part of a team to solve problems. GeoMARC is committed to helping prepare students to be the best they can be.
- b. Innovative High-Quality Programs: GeoMARC continues to play a significant role across campus in helping support high-quality programs. GeoMARC personnel administers all geospatial software across campus to both faculty and staff (Engineering, Biology, Environmental Sciences, STEM, C-PAN, etc.). Additionally, GeoMARC supports the Department of Geography through teaching advanced geospatial courses (Python Programming, Remote Sensing and Digital Image Processing, Earth Science, and Aerial Image Interpretation), as well as through the management and maintenance of all hardware and software in its GIS laboratory. This lab is used to teach over a dozen geospatial courses that support a variety of programs across campus as well as the Departments' GIS minor.
- c. Dedicated Faculty and Staff: GeoMARC supports teaching and research across campus with its expertise in applied geospatial analysis. GeoMARC staff routinely support faculty and students from various disciplines in the gathering and cleaning of geospatial data and giving advice on the advanced uses of geospatial tools. GeoMARC also makes itself available to faculty across campus to brainstorm on ideas regarding new uses of the latest advancements of geospatial technology.
- d. **Outreach and Partnerships:** GeoMARC has a strong track record of outreach with its strong and continuing relationship to T-REX in St. Louis, its support of local area schools with the integration of geospatial thinking into their after-school programs, and the support of the Edwardsville School District #7 for modeling and adjusting school boundaries and bus transportation related to differential growth. In fact, GeoMARC routinely tracks in-migration, out-migration, and within district student migration for the local school district to help forecast the need for boundary adjustments.

e. **Physical and Financial Stability:** In its second year as a Center, GeoMARC procured funding totaling over \$2.2 million in grants and contracts and supported numerous students and faculty in their research efforts. The income from these grants and contracts provides indirect cost recovery for SIUE and GeoMARC and provides funding for student workers and graduate students.

# (2) Support for IBHE State Goals

- a. Increase Educational Attainment: One of the key issues facing the geospatial workforce is the low number of underserved students with geospatial skill sets. GeoMARC is actively working to help address the issues related to Diversity, Equity, and Inclusion in the geospatial industry. As mentioned in the narrative on major accomplishments, GeoMARC is continuing to play a significant role in helping broaden the diversity in the local area workforce with respect to the underserved population. In FY23, GeoMARC funded a total of 21 students to work on its numerous grants and contracts, with over 50% being from underserved populations, including students of color, women, and students from impoverished backgrounds.
- b. Improve College Affordability: GeoMARC's external funding provides a wealth of opportunities for students through paid internships, student work, and graduate assistantships. In FY 23, GeoMARC's spent \$157,389.84 on its student workforce. This funding was critical to the students who are always worried about student loans and college affordability.
- c. Strengthen Workforce Development: C-PAN and GeoMARC are working with Illinois State University on a USDA grant (Crossing the Digital Divide) that is taking geospatial technology to the workforce through workshops and virtual education modules. The virtual modules are at the beginner, intermediate, and advanced level on the use of geospatial technologies in agriculture. These modules are designed to demystify and to help educate and develop a more informed workforce in rural Illinois with respect to this rapidly evolving technology. The ultimate goal for these virtual modules is the creation of geospatial badges that keep up with (and address) this changing technology. Additionally, GeoMARC (as mentioned in the narrative on major accomplishments) has taken the lead in the area's geospatial education (K-8). NGA has recognized there is often a significant lack of geospatial education in a young student's formative years. In FY23, NGA put a significant effort into addressing this educational void. GeoMARC was at the center of this effort, which is laying foundation for the area's geospatial workforce going forward.
- d. Link Research and Innovation to Economic Growth: There is a major regional push to develop the St. Louis metropolitan area into one of the top geospatial hubs in the nation. In fact, when one considers the significant presence of NGA, Scott Airforce Base, Bayer CropScience, Enterprise Leasing, and Climate Corp in the area, it is already in the top five metropolitan areas in the nation with respect to geospatial industries. As this geospatial ecosystem continues to evolve, it is critical for the Illinois side of the MSA to have a balanced role in the area workforce, in geospatial innovation, and growth of geospatial industries. GeoMARC, through its many partnerships in St. Louis, its supply of well qualified students, and its geospatial research collaboration with other academic units within SIUE will help keep this balance in check.

# 11.4 Evidence of Support for Center/Institute Objectives

#### 1. Foster partnerships with other universities, government agencies, and industry.

In FY23 GeoMARC continued to foster partnerships and research relationships with a number of government agencies, universities, and commercial companies. In total, during FY23 GeoMARC collaborated with 6 different governmental agencies (local, state, and federal), 11 different university/non-profit groups, and 5 different commercial companies.

# Examples of research and collaboration with government agencies included:

- Illinois Department of Natural Resources Mapping and surveying underground mine subsidence across Illinois. (Externally funded)
- DoD's National Geospatial-Intelligence Agency Production of 1:50K topographic and ground navigation maps for movement of US and NATO troops. (Externally funded)
- Illinois State Library Development and maintenance of a Website for calculating library district populations across Illinois which drives funding support for each district. (Externally funded)

# Examples of research relationships with universities and non-profit organizations included:

- St. Louis University Missouri View Program (Externally funded)
- East-West Gateway Research into mapping urban heat islands and assessing their impact on low-income communities in St. Louis.
- Illinois State University (with C-PAN)— Co-developing workshops and instructional videos on the use of geospatial technologies in rural areas of Illinois. (Externally funded)
- Kansas State University, Iowa State, University of Nebraska SIUE is representing Illinois in the development of a soybean oil and protein model for the Midwest. (Externally funded)

# Examples of research and collaboration with private industry included:

- Bayer CropScience Mapping the proximity of milkweed habitat to various biotech crops in support of the decline population of Monarch Butterflies. (Externally funded)
- Mine Insurance Fund Use of state collected multi-date LiDAR for mapping potential subsidence in rural areas. (Externally funded)
- Electric Power Research Institute— Assessing proper management of utility rights-of-way for best environmental management practices. (Externally funded)
- Illinois Corn Marketing Board Continued assessment the impact of Wind Farms on land use across Illinois

# 2. Pursue external funding.

In FY23, GeoMARC (in conjunction with its many collaborative partners) solicited external research and development funding through 16 proposals that totaled \$3,041,048.35 (with \$2,400,371.01 directly tied to GeoMARC). The table below details these proposals, the funding entity, the collaborators, and the proposal amount.

Program Area/Sponsor	Partnering Units/Institutions	Amount
IDNR – Mine Map Preservation and Web- based Digital Distribution	GeoMARC (FY23 - FY25)	\$684,794.01
IDNR - Subsidence Monitoring Response Team	GeoMARC (FY23 - FY25)	\$597,257.43
USDA - Collaborative Research: HDR DSC: The Data Gateways Project - Creating Pathways for Multiple Points of Entry into Data Science Careers and the Training of a Multidisciplinary Workforce	C-PAN/GeoMARC (FY22 - FY26)	Total Grant \$508,000.00 GeoMARC's Portion \$121, 143.01
Bayer CropScience	GeoMARC	\$18,600.00
NGA - 1:50K Topographic Production	GeoMARC (FY22 – FY23)	\$198,725.94
NGA - 1:50K Topographic Production	GeoMARC (FY23 – FY24)	\$126,175.20
Electric Power Research Institute (EPRI)	GeoMARC (FY22 – FY23)	\$133,721.26
Electric Power Research Institute (EPRI)	GeoMARC (FY23 – FY24)	\$99,328.00
Kansas State University	GeoMARC	\$7,000.00
NGA	GeoMARC	\$198,725.94
Illinois State Library System	GeoMARC	\$16,143.57
Monroe County Assessors	GeoMARC	\$4,000.00
T-REX - Development of K-5 After School Geospatial Education Curriculum	GeoMARC	\$29,000.00

Southern Illinois University System	SIU System Geospatial Mapping – Alumni, Students, and Staff	\$4,000.00
Center for Disease Control  **	GeoMARC /Center for Crime Science and Violence Prevention	Total Grant \$587,802.94
		GeoMARC's Portion \$333,982.59
External Total		\$3,041,048.35
External Total GeoMARC Portion		\$2,400,371.01

<sup>\*\*</sup> Each of the above proposals was funded except the proposal to the CDC.

# 3. Provide real-world experience and mentorship to undergraduate and graduate students through externally funded research partnerships.

Through funding from the various projects detailed in objectives #1 and #2, GeoMARC (during FY23) funded 15 students through student work, graduate assistantships, and internships. Students were mentored by GeoMARC staff on all aspects of these projects including research design, project implementation, and final product delivery. This experiential learning is the center of GeoMARC's mission with the result being a well-prepared workforce with advanced geospatial skills and real-world experience.

#### 4. Support Student Retention.

GeoMARC's external funding allows students to not only get involved in real-world projects, but to receive financial support for their efforts. The numerous students working at GeoMARC learn how to socialize and work together in a high-level work environment. They learn how to rely on each other, they study together, they socialize outside of work, and ultimately form lasting relationships. This student community that GeoMARC is creating is an evolving model that is already paying significant dividends on student retention.

# 5. Bring together academic researchers, educators, and industry experts to share ideas through regional workshops, seminars and conferences.

As one can tell from the table in Objective #2, GeoMARC was quite active in working with government and private industry with 14 of its 16 proposals being solo solicitations. While GeoMARC was certainly active in cross-disciplinary discussions and collaborations defined in this objective; it was less active in the proposals related to these collaborative efforts. However, GeoMARC's goal is to engage in a higher number of collaborative grants going forward.

### 6. Promote the ethical uses of geospatial technologies.

One significant issue with evolving geospatial technologies is with their ethical use. Like many technologies, geospatial analysis can be used unethically to produce "desired results". Often, clients will have an idea of what they want the outcome of a project to be prior to any analysis being performed. GeoMARC has never been, and will never be, persuaded to work toward a

client-desired outcome. That would be dangerous and horribly unethical. In our world, data speaks for itself. With this said, it is extremely important for students to see this process in action. At GeoMARC, students get to see how we deal with industry and government agencies with respect to our ethical use of these powerful technologies. We hold firm on project design, data integrity, protocol procedures, and analysis and results. GeoMARC's student workers, graduate students, and interns get a first-hand look at this process and will certainly take these important ethical-use concepts with them into the workforce.

7. Create and foster multidisciplinary collaborations across SIUE and the SIU system. In FY23 GeoMARC was very active in collaborations across various units in the SIU system. GeoMARC collaborated with C-PAN, BLI, Geography, Environmental Sciences, Chemistry, the new Center for Crime Science, Engineering, and the SIU System. There are several very positive aspects of this multidisciplinary collaboration: sharing of ideas and resources, building a formidable team when applying for external funding, and the co-mingling of students that are working on joint projects. GeoMARC routinely works closely with C-PAN, BLI, Environmental Science, and Chemistry on environmentally related research. Not only do faculty and staff gain from this, but students also gain exposure to other modes of thinking, learn to use different technologies, and gain insight from other students.

# 8. Develop partnerships with local businesses and government agencies to produce high impact community engagement projects.

GeoMARC is committed to supporting local businesses and government agencies in community engagement projects. One of GeoMARC long standing efforts is working with Edwardsville School District #7 in modelling student population migration (in migration, out migration, and within district migration) to help understand the need for school boundary adjustments over time. Additionally, GeoMARC developed and now supports geospatial education at Edwardsville High School. Through this program, GeoMARC has exposed geospatial technologies to over 400 local area high school students over the last 10 years. GeoMARC also has a long-standing relationship with the East St. Louis Board of Elections. In FY22/23, GeoMARC took on a community project in East St. Louis to show various redistricting scenarios in relationship to new legislation. GeoMARC presented the results to a virtual meeting of town officials in FY22 and a modified version of the results during an in-person presentation in FY23. Finally, GeoMARC, through its relationship with IDNR's subsidence monitoring program, has a strong community presence for SIUE. GeoMARC's subsidence monitoring team is deployed 4 to 5 days a week, taking ground measurements, collecting drone imagery, and interacting with area residents from Springfield to Carbondale. GeoMARC's subsidence monitoring team is one of the primary links between IDNR and the public.

# 11.5 Evidence of Organizational Effectiveness

#### **Organizational Effectiveness in Achieving Predetermined Goals**

As shown in Section 11.1, GeoMARC met or exceeded all targets for its 10 metrics. Granted, this was only GeoMARC's second year, and it still difficult to truly determine (without significant prior data as a Center) a valuable measure for many of the metrics described. Nonetheless, in its second year GeoMARC made significant progress in strengthening its current relationships (and cultivating new relationships) with governmental agencies, other universities, and private industry. It will be these long-term financial and research relationships that will continue to

help stabilize revenue streams over time, allowing for more accurate long-term planning (which affects student funding, student retention, faculty research, and support to the university). This strategy of becoming the "go to" research arm of various agencies and private companies is something that GeoMARC will continue to foster going forward.

# **Research & Grant Applications**

In FY23, GeoMARC submitted \$3,041,048 in grant proposals with \$2,400,371 being tied directly to GeoMARC. From those proposals, GeoMARC procured \$2,066,388 in funding. While several of these grants/contracts were multi-year, the foundation for maintaining continued relationships (which leads to continued funding) shows great promise for GeoMARC as a Center. While GeoMARC procured much of this funding independently (without other collaborators), it is expected that GeoMARC will look at the prospect of increasing its collaborative efforts with other researchers and Centers to help increase the potential of grant acceptance for all. Yet, as stated in our FY22 report, time will tell if collaborative research efforts yield a similar return on investment as compared to solo solicitation efforts. Ultimately GeoMARC will need to find that balance that allows it to most adequately fulfill all its goals and objectives.

With this being GeoMARC's second active year as a Center, we were still more focused on building a substantial research and service revenue base, with Scholarly Publications and Presentations still taking a bit of a back seat. We hope and expect this to change going forward. Also, several of our top funding agencies for FY23 (NGA, Bayer) had NDAs restricting what could be published or presented. However, even as I write this in FY24, Bayer has relaxed its stronghold on the dissemination of its collaborative research and is working with GeoMARC on two collaborative publications.

Below are the Scholarly Publications, Presentations, and Number of Research Faculty for FY23.

Year	# Scholarly Publications	# Scholarly Presentations	FTE Research Faculty
FY23	1	2	1

#### 12. Institutional Assessment

12.1	Date of Last Review	NA – GeoMARC Established July1, 2021
12.2	Decision at Last Review	X Center/Institute in Good Standing Center/Institute Flagged for Priority Review Center/Institute Suspended
12.3	Explanation	(Center established in FY20. Has not yet undergone formal

**RESOURCES:** GeoSpatial Mapping, Applications, and Research Center (GeoMARC)

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State Appropriations	235,271.11	233,867.00	0	0	0
Grants & Contracts	732,270.07	541,397.08	0	0	0
Nonmandatory Transfers In	37,313.06	32,953.64	0	0	0
Total Revenues	1,004,854.24	808,217.72	0	0	0
Expenditures*					
Salaries	516,949.39	483,673.04	0	0	0
Student Wages	75,784.23	34,224.89	0	0	0
Graduate Assistants	81,605.61	48,450.63	0	0	0
Fringe Benefits	64,618.22	63,624.34	0	0	0
F&A	127,922.30	126,427.58	0	0	0
Contractual Services	19,326.01	3,388.20	0	0	0
Equipment	51,570.00	35,394.89	0	0	0
Telecommunications	1,686.39	2,004.32	0	0	0
University Transportation	14,755.80	11,912.44	0	0	0
Commodities	1,724.91	2,664.79	0	0	0
Total Expenditures	955,942.86	811,765.12	0	0	0
Revenue Minus Expenditures	48,911.38	(3,547.40)	0	0	0

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

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
Faculty	2.0	1.0	0	0	0
Staff	5.0	5.0	0	0	0
Temporary CS Extra Help	1.3	0	0	0	0

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
Graduate and Undergraduate Students	4.9	3.8	0	0	0
Total Staffing	13.2	9.8	0	0	0

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

(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	2-28-24
J.	Date	2-20-24
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
	(ii perunent)	
7.	Reporting Unit	School of Business
8.	Туре	Activity (check all that apply)
	Instructional	(effect all that apply)
	Research	
	Public Service	X

<sup>\*</sup> 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 SBDC for the Metro East at SIUE operates 2 offices (SIUE–Edwardsville Campus and East Yvetter Younge Higher Education Campus) and an International Trade Center to assist entrepreneurs and small business owners in the designated 9 (plus) 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 advising, 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 community 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 January 2019

Last meeting held November 7, 2023. Next scheduled for March 12, 2024

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 SWILTIC is the first of its kind in Illinois. The Council's board meets regularly four times a year and each meeting serves as an excellent opportunity to announce future export-related grants as well as programs led and sponsored by the Illinois SBDC- ITC at SIUE. The Council also provides an outlet for regional exporters to share their success stories and testimonials with board members and community leaders.

http://swillinoistrade.org/Council https://www.siue.edu/business/itc/about/sw-ill-trade-investment-council.shtml

10.2	Number of Meetings (FY23)	SBDC - 3 meetings	ITC - 4 meetings
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#### 11. Annual Performance FY23

## 11.1 Performance Measures \*

Mea	sure	Target for Year	Results in Year
1.	Number of Jobs Created (SBDC)	28	68
2.	Number of Business Starts (SBDC)	11	8
3.	Number of Clients Advised (SBDC)	425	460
4.	Number of Clients Advised (ITC)	40	56
5.	Client Exports (ITC)	\$20,000,000	\$14,098,810

<sup>\*</sup> 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 (FY23)

#### SBDC:

- Advised 460 Clients and helped them secure over \$898,000 in Debt and Non-Debt Funding through more than 1812 hours of contact.
- Continued Illinois Navigator Grant efforts through 6/30/23 to bring awareness and assist businesses with the Back 2 Business Grants and other grants offered through the State of Illinois. Some Federal opportunities as well.
- Supported Belleville, Edwardsville, Collinsville/Triad, Clinton County, Riverbend and Fayette County High School CEO Programs.
- Secured Meridian Society Grant to host business cohorts.
- Hosted 9<sup>th</sup> Annual Metro East Startup Challenge promoting Entrepreneurship and Innovation in St. Louis Region.
- Director serving as co-chair on SIU System Strategic Plan Implementation Team 2 (Entrepreneurship).
- Director began tenure as Co-Chair of the Latino Roundtable (LRT) (Jan. 2023-Dec. 2024).

- Director continued as part of IESBGA Planning Committee (SBDC Professional Development).
- Certified Advisor became Treasurer for IESBGA (2022-2023).
- Conducted and/or Hosted 40 Workshops/Training Sessions with approximately 418 attendees.
- Published 13 Success Stories celebrating our local Entrepreneurs and Small Business
   Owners
- Attended Emma Fest (East St. Louis) & numerous LRT events to promote SBDC and support minority entrepreneurs and business owners.

#### ITC:

- The ITC continued focusing on developing and strengthening partnerships in key regions to support global engagement. The ITC has had a Cooperation Agreement with <u>Universidad de Lima</u> in Peru since 2019, and during 2022 has been exploring projects with <u>SERCOTEC</u> (Servicio de Cooperación Técnica), a division of Chile's Ministry of Economy and Development, and most recently in Mexico, with various trade and economic development groups, including <u>COMCE</u> (Consejo Empresarial Mexicano de Comercio Exterior). The ultimate goal of these partnerships is to connect Latin America with southern Illinois' small- and medium-sized businesses and entrepreneurs.
- The ITC successfully completed the second series of its export training program "EXPORT NOW", which was held from August 24<sup>th</sup> through September 21<sup>st</sup>, 2022.
   One rural business and two women-owned small businesses participated in the series. Once again, this program was made possible thanks to funding through the Federal CARES Act.
- Continued providing specialized assistance regarding Latin America. This included
  the delivery of customized research reports with consumer market trends as well as
  business, country and industry data, focusing on key South American markets; plus
  one-on-one advising sessions in Spanish to SMEs looking to explore market
  opportunities in South America.

The following initiatives were accomplished with the support of CARES Act funds:

• "Team South" -- Together with domestic and international partners and consultants, the Illinois SBDC ITC at SIUE was able to reach its goal of building a stronger and more cohesive network of assistance; first, by identifying small businesses in the southern region that are navigating the stresses caused by the pandemic; and second, by offering them immediate insights and guidance in key areas.

• "Southern Illinois Exports": Connecting the Region with the World

# 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.

- The ITC launched the <u>Southern Illinois Exports Online Directory</u> located at <u>southernillinoisexports.org</u>. The directory is expected to become a new "connecting platform" for new business opportunities between international buyers and southern Illinois suppliers.
- This directory is being offered at no cost thanks to CARES Act funding. The entire
  platform has been translated into Spanish, so the initial marketing efforts will be
  targeted to key Latin American partners in order to open another door of growth and
  opportunity for southern Illinois small businesses.
- Sponsored/Co-sponsored five programs with very positive feedback. Over 100 business representatives from the entire state participated.
- Sponsored businesses with their participation in trade missions and shows in Europe and Latin America. These clients were also assisted with research work performed by the ITC.
- Finally, on June 6<sup>th</sup>, 2023, our Illinois SBDC International Trade Center at SIUE (ITC) received the prestigious Presidential "E" Award for Export Service from U.S. Secretary of Commerce, Gina Raimondo, during the 2023 award ceremony at the U.S. Department of Commerce in Washington D.C. This award is the highest recognition a U.S. entity can receive for making a significant contribution to the expansion of U.S. exports. Our center was one of four organizations that earned the "E" award for Export Service and the only one located at a university. Press release and photo: <a href="https://bit.ly/3WSlz7E">https://bit.ly/3WSlz7E</a> To learn more about the "E" Awards: <a href="https://www.commerce.gov/tags/e-awards">https://www.commerce.gov/tags/e-awards</a>

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

Provided business advising and/or support to many SIUE students (Clients, Students, Alumni and CEOU/Entrepreneurship Club) in CY2023; organized efforts to foster and promote innovation and entrepreneurship on campus; and strengthened SIU system to the community through coordinated outreach efforts, social media campaigns, 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 – 460 SBDC client contacts, over \$14M in ITC client exports, 40 SBDC training sessions. Starting a Small Business Workshop is offered both monthly and on-demand at no cost.

Center supports SIUE CEOU/Entrepreneurship Club & The Other 40 Competition. Spoke to various classes throughout Fall 2022 and Spring 2023 including Mass Comm and Nutrition. Recommend clients to participate in class projects for Mass Comm and MGMT 475/476. Promoted SIUE's vision of Entrepreneurship and Innovation within the communities we serve. Attention to geographic reach and diversity inclusion of entrepreneurs and small businesses with SBDC outreach and events.

# 11.5 Evidence of Organizational Effectiveness

During FY23, the SBDC and ITC met or exceeded the goals set in a majority of its performance measures and achieved 91% or greater in 18 of 22 total measures.

#### 12. Institutional Assessment

12.1	Date of Last Review	Financial Rev	iew 2017   Performance Review 8/30/18   Center Review 2020		
12.2	Decision at Last Review	Χ	Center/Institute in Good Standing		
			Center/Institute Flagged for Priority Review		
			Center/Institute Suspended		
12.3	Explanation	2018 SBA and	d ASBDC Accreditation Review 10/2021		
		Financial Review 2017			
		IBHE 2020	IBHE 2020		

# RESOURCES: IL SBDC for the Metro East at SIUE

Financial Resources	CY2023	CY2022	CY2021	CY2020	CY2019
Revenues					
State Appropriations	80,000	21,017	125,710	123,866	124,388
Income Fund	3,511	1,456	3,032	1,061	15,016
Grants & Contracts	120,000	185,000	505,715	385,000	185,000
Total Revenues	203,511	207,473	634,457	509,957	324,404
Expenditures*					
Salaries/Fringes	120,333	133,794	268,526	255,922	256,460
Commodities	3,019	1,564.59	6,048	5,420	4,460
Contractual	29,674	\$104,718	223,118	64,293	42,982
Travel	17,041	10,395	6,118	1,594	15,555
Consultants/Indep.	16,017	0	55,913	37,005	0
Contractors					
Equipment	0	0	0	0	0
Telephone/Other	9,843	3,924	3,618	3,853	4,432
Total Expenditures	195,927	254,396	563,341	368,087	323,889
Revenue Minus	7,584	-46,923	71,116	141,870	515
Expenditures		(used 2021			
		remaining			
		funds)			

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

\*\*CY 2021 includes \$50,000 in CARES Act funding received for COVID-19 relief efforts and \$270,715.44 on Illinois Navigator Grant.

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.

\*\*CY2022 includes an additional \$21,017 in Illinois Navigator Grant funds with carryover from 2021. Illinois Navigator allowed center to partner (contract) with 6 entities (chambers, economic dev. Etc) to assist with State Grants announced -Back to Business Grants, Tourism etc.)

Staffing (Full Time Equivalent)	FY23	FY22	FY21	FY20	FY19	FY18
Faculty	0	0	0	0	0	0
Staff	3	4	3	3	3	3
Total Staffing	3	4	3	3	3	3

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

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

1.	Reporting Institution	Southern Illinois University Edwardsville			
2.	Center/Institute	IRIS Center for the Digital Humanities and Social Sciences			
3.	Date	28 February 2024			
4.	Director	Jessica DeSpain, Kristine Hildebrandt, co-directors			
	4.1 Telephone	618-650-2667			
	4.2 E-mail	jdespai@siue.edu, khildeb@siue.edu, iris@siue.edu			
5.	Year Established	November 11, 2020			
6.	Illinois State Statute (if pertinent)	N/A			
7.	Reporting Unit	College of Arts and Sciences			
8.	Туре	Activity (check all that apply)			
	Instructional	x			
	Research	X			
	Public Service	x			

<sup>\*</sup> 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 IRIS Center aims to facilitate cross-disciplinary and collaborative projects that involve innovative uses of technology in the humanities and social sciences and support these projects via access to physical facilities, equipment, and human resources. The Center works to foster active mentorship and collaboration between faculty and students at undergraduate and graduate levels, encourage the development of curricular innovation that makes significant use of digital applications and resources, and promote digital endeavors that intersect with community initiatives and organizations.

#### 9.2 Mission

The Interdisciplinary Research and Informatics Scholarship (IRIS) Center at Southern Illinois University Edwardsville (SIUE) is an interdisciplinary facility designed to support scholarship in the humanities and social sciences that applies digital content as a primary methodology.

#### 9.3 Objectives

- Facilitate cross-disciplinary and collaborative projects that involve innovative uses of technology in the humanities and social sciences.
- Support these projects via access to physical facilities, equipment, and human resources.
- Foster active mentorship and collaboration between faculty and students at undergraduate and graduate levels.
- Encourage the development of curricular innovation that makes significant use of digital applications and resources.
- Promote digital endeavors that intersect with community initiatives and organizations.

#### 10. Advisory Board

# 10.1 Advisory Board - Membership

# Internal Advisory Board Members Stacey Brown Lora Del Rio Greg Fields Jessica Harris Lydia Jackson Sharon Locke Jeff Manuel Mark Poepsel

Johanna Schmitz

Howard Rambsy II Vance McCracken Connie Frey-Spurlock

**Gunes Ercal** 

Cory Willmott

# **External Advisory Board Members**

Jen Cline

Jacob Del Rio

Harriet Green

Robbie Hart

**Katherine Knowles** 

Kristen Lillvis

Matt Meacham

Jacob Carlson

Ben Ostermeier

Ellie Scott

# 10.2 Number of Meetings (In This Year) 1 per board

#### 11. Annual Performance

#### 11.1 Performance Measures \*

Mea	sure	Target for Year	Results in Year
1.	Submit grant proposals to federal/private	4	11
	foundation funding sources		
2.	Submit products for publication	6	7
3.	Present research at conferences	8-10	8
4.	Conduct workshops directed at campus	6	6
	community		
5.	Conduct professional development workshop	1	1
	for local teachers		
6.	Hold an open house	1	2
7.	Develop two initiatives in partnership with	2	3
	community organizations		
8.	Recruit additional students to the minor	2	3

<sup>\*</sup> 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)

Student usage of the Center more than tripled during this fiscal year as we launched two major student-centered programs: Community-Oriented Digital Engagement Scholars (CODES) and Realizing Inclusive Student Engagement in the Digital Humanities (RISE-DH).

We welcomed the first cohort of 25 CODE Scholars to SIUE in FY23. CODES has been funded by two awards from the National Endowment for the Humanities. CODES is a general education pathway for SIUE students who are Black, Latinx, Pell Eligible, or among the first in their families

to attend college. In this first-of-its-kind program, CODE Scholars collaborate with community organizations from their very first semester. They study and address the world's most pressing problems and share their outcomes using digital humanities methods. The program has benefitted from planning and implementation grants from the National Endowment for the Humanities and investments from SIUE in scholarships and operations. The retention rate of our first cohort of 25 students was 84% compared to 69% for SIUE students from the same demographic group. As of Fall 2023, 98% of CODE Scholars from both cohorts have GPAs placing them in good academic standing.

CODE Scholars learn how to participate within face-to-face and online communities as they translate their interactions with stakeholders into digital environments and focalize their work for multiple audiences. The coursework incorporates multiple high impact practices proven by the American Association of Colleges & Universities to increase student retention and success. The CODES research teams are learning communities; they conduct collaborative research in each course; they publicly present their work; and they assess their learning using ePortfolios. CODE Scholars from every major become immersed in why the humanities matter for their lives, for the future of our world, and for the careers they imagine for themselves. The first cohort considered spatial justice and resiliency in Alton, Illinois.

RISE-DH was supported by the Social Sciences Research Council—NEH Sustaining Humanities Infrastructure Program. The project funded 20 African American students working as interns in the IRIS Center. The project responded to the dearth of spaces on campus and in society for African American students to participate in learning activities like digital storytelling, database management, and the role of technology in society. Fellows engaged with four projects that correspond to themes of DH technical mentorship and DH research in-action: The Black Tech Sandbox, CODES, the E-Stories Project, and the Schaefer Edoid Archive.

There are few opportunities for Black students at SIUE to see themselves at technologists or to develop technological or information literacy. We had several conversations with students about this lack, and we experienced challenges in helping students become comfortable with dabbling and experimentation without the fear they would break something. These skills developed in the RISE fellows with each passing week, and what started as a significant challenge became a major accomplishment as students shifted their identities and found ways to engage with other Black students because of their work.

Beyond CODES and RISE-DH, IRIS has also supported student interns on other projects that teach both technical and humanistic skills, including the Schaefer Edoid Archive and Madison County at the Migratory Crossroads.

IRIS has continued to support faculty research, collaborating with affiliated faculty through our monthly Morning Bytes workshop series, grant-writing assistance, web development, project management, and consultation. We launched our first faculty fellow program in Spring 2022, offering two promising early-career faculty the opportunity to focus on their digital research throughout FY23. Dr. Howard Rambsy and Margaret Smith continued their work on the Mellon-

funded Black Literature Network alongside a team of researchers at Kansas University. The NEH-funded Recovery Hub for American Women Writers, a multi-institutional project dedicated to using digital humanities tools and methodologies to recover the work of American women writers continued cultivating digital projects across the country under the leadership of Jessica DeSpain and Margaret Smith and was awarded a second NEH grant submitted during FY23.

The IRIS Center has also worked to become a leader in digital humanities infrastructure and pedagogy in our region. Through a partnership with Lindenwood University funded by the National Endowment for the Humanities, Margaret Smith hosted workshops with area scholars and high school educators to expand access to DH pedagogy across the metro St. Louis region by developing curricular and infrastructural resources. Following the workshop, Smith and faculty at other area institutions have worked to build a resource website, create partnerships with local cultural heritage organizations, and host an annual student showcase for the region.

In addition to this work the Center and affiliated faculty submitted eleven grant proposals, five of which were awarded. With seven scholarly submissions and eight national conference presentations, IRIS's affiliated faculty are establishing the Center's national reputation.

11.3 Evidence of Support for IBHE "A Thriving Illinois," SIU System, and SIU Campus Strategic Planning

#### **IBHE Goals**

The digital humanities pedagogies and research opportunities offered to students through the IRIS Center support **Goal 1** ("Increase educational attainment to match best-performing states") and **Goal 4** ("Better integrate Illinois' educational, research, and innovation assets to meet the economic needs of the state and its regions"). Through the minor, and through internship and research partnerships both on-campus and in the community, IRIS has provided access to expanded opportunities for students to increase marketable skill sets. IRIS has also worked with area organizations, for example with Madison County organizations, with the YWCA of Southwestern Illinois, the National Council of Negro Women, and the National Great Rivers Research and Education Center, and TechSTL to develop sustainable resource pools and incentives for students that train them to be positive agents of change in our region.

# **System and University Goals**

For **System Goal 1** (Academic innovation and student success), **University Goal 4** (student-centered and supportive campus community), and **University Goal 2** (innovative high-quality programs to engage and retain students), The IRIS Center provides interdisciplinary and experiential components that empower our students to address real-world challenges. IRIS engaged in high impact practices including facilitating internships and provided opportunities for DH experience through compensation (through URCA or Student Employment) or credit-earning initiatives, including the minor. In FY23, we expanded our opportunities for internships through RISE-DH. We also launched CODES with the goal of expanding minoritized students' access to high impact practices. Additionally, the IRIS Center has frequently been included in family tours during SIUE Preview recruitment events.

For **System Goal 2** (Anti-racism, diversity, equity, and inclusion), **System Goal 3** (EDI infrastructure and organization), and **University Goal 1** (optimized enrollment of diverse and

prepared students), the many programs run in partnership with IRIS are explorations of diverse cultural heritage, including Black Literature Online, the Recovery Hub for American Women Writers, the Schaefer Edoid Project, and Douglass at the Literary Crossroads. In addition, innovative programming for students like CODES and RISE-DH are designed to increase access to twenty-first century technology skills for under-resourced learners and support the University's recruitment, retention, and success efforts.

For **System Goal 5** (Successful and diverse faculty and staff) and **University Goal 3** (dedicated faculty and staff), IRIS partners with faculty who represent a diverse range of experiences and knowledge. Hiring committees across campus often schedule tours of IRIS for their candidates as a selling point for the University. In FY23, IRIS hosted its first cohort of faculty fellows, who benefitted from peer mentorship, technical support, and project consultation to develop a piece of digital scholarship or creative output.

For **System Goal 6** (Sustainable infrastructure) and **University Goal 6** (physical and financial sustainability), IRIS provides training to faculty and students on innovative technologies. Additionally, IRIS partners with the office of Information Technology Services at SIUE to provide digital project hosting and computational maintenance. IRIS is also invested in technology sustainability by developing project work plans that include long-term needs and data management and is engaged in a collaboration with Lovejoy Library to consider the data repository needs of digital projects.

# 11.4 Evidence of Support for Center/Institute Objectives

The Center "facilitated cross-disciplinary and collaborative projects that involve innovative uses of technology in the humanities and social sciences." The following represent a sample of the ongoing research projects and collaborations in IRIS during FY23:

- Cory Willmott worked with the IRIS Center on her scholarly project *China Middle Kinadom*.
- IRIS supported several of Howard Rambsy's projects, including the Mellon-funded Black Literature Network, the African American Poetry Tracker, and Frederick Douglass at the Literary Crossroads.
- Smith worked alongside Laura Fowler and Jeffrey Manuel on "Madison County at the Migratory Crossroads," a public history project in partnership with the Madison County Historical Society.
- Faculty fellow Ezra Temko collaborated with the Center to develop a digital timeline of gender balance in Iowa politics. As a result of his IRIS fellowship, he applied for and received two grants to continue his sociology research.

IRIS "supported projects via access to physical facilities, equipment, and human resources."

 Seven students worked on the Schaefer Edoid Archive, making use of scanners and computers to digitize archival materials; one student used the project as her senior assignment for Liberal Studies. Emeritus faculty Ron Schaefer has continued supporting the project through generous donations to the Center.

- IRIS provided instances of WordPress, Omeka, and Scalar to faculty and students so that they could work on research and community engagement projects.
- IRIS continued to hold regular coffee hours and office hours to provide consultation and assistance on grant-writing, project development, and technical questions.
- IRIS hosted its first two faculty fellows, who received a year of consultation and a course release.
- IRIS held monthly "Morning Bytes" workshops on technical tools and methods for SIUE faculty and students
- IRIS provided a WordPress instance and consultation for an LIS project on "Diverse Librarianship Career Training and Education," a toolkit for creating pathways into librarianship for students from underserved groups.
- IRIS provided several WordPress instances for pedagogical uses, including in History, English, and Anthropology.

The Center "fostered active mentorship and collaboration between faculty and students at undergraduate and graduate levels," including:

- Five students worked on the Schaefer Edoid project under Hildebrandt's direction, scanning, learning about data management, and adding items to the archive.
- Three students held internships with the IRIS team involving the creation of video, archives, and social media plans.
- One student worked on the "Establishing a DLI Community of Science" project under Hildebrandt's direction to build the WordPress web site.
- Three students worked on "Madison County at the Migratory Crossroads" with Smith, Fowler, and Manuel, learning skills including digitization, metadata creation, and public humanities outreach.
- Four Computer Science students completed their senior project developing a user interface for Leaflet (a mapping tool commonly used in Digital Humanities), for which Smith was the "client."

Center faculty also developed and "encouraged the development of curricular innovation that makes significant use of digital applications and resources." The DHSS minor added four students and continues to recruit and expand.

- DeSpain and Smith participated with faculty from the Honors program as learners in the American Association of Colleges and Universities ePortfolio initiative and piloted the use of ePortfolios in the CODES program.
- DeSpain, Smith, and Frey-Spurlock held three SIUE faculty development workshops about community-based pedagogies, digital pedagogies, and problem-based curricular innovations as a part of their work for CODES.
- Hildebrandt incorporated digital platforms such as Scalar and Wikipedia editing into her undergraduate and graduate teaching.
- Hildebrandt mentored undergraduate Abby Asberry as she built a curated collection of images and audio into the Schaefer archive as part of her senior assignment.

In addition, the Center "promoted digital endeavors that intersect with community initiatives and organizations," including:

- "Expanding Access to the Digital Humanities in St. Louis," workshop co-led by Geremy Carnes (Lindenwood) and Margaret Smith
- Highland Historical Society
- Madison County at the Migratory Crossroads, a partnership with the Madison County Historical Society
- BROADBAND READY Illinois, co-directed by Connie Frey-Spurlock, Carrie Butts-Wilmsmeyer, and Kristine Hildebrandt

# 11.5 Evidence of Organizational Effectiveness

The IRIS Center has succeeded in meeting or exceeding all its internal measures for success. As the measures show, community engaged scholarship continues to be a core strength and commitment of the center with six community partnerships, several of which have received funding at the local, state, and national levels.

Sustainable infrastructure is a key concern in the digital humanities; as archivists and analysts of historical and cultural data, the Center has a priority to ensure that the projects we support are curated and maintained with longevity in mind. The IRIS faculty bring the same concerns to the Center's organizational management and infrastructure. We have had sporadic access to administrative assistance and still manage to maintain budgetary and auditing records for the center. At any given time, the Center is engaged in up to thirty faculty projects, which does not include the work of day-to-day Center operations. We have a project management framework, including file management, communication, and workflow systems to support the organization of this workload.

We continue to pay for more of Dr. Smith's salary than proposed in our original IBHE budget. The Center was formerly staffed by one project manager and one web developer before hiring Dr. Margaret Smith. To continue to support the Center's current workload and develop more innovative digital projects, the Center hopes to hire a web developer in the coming five years.

12.	Institut	ional Assessment	
	12.1	Date of Last 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:** IRIS Center for the Digital Humanities and Social Sciences

	FY2023	FY2022	FY2021	FY2020	FY2017
Resources					
Revenues					
State	250	250	250		
Appropriations					
Income Fund	4,386	33,540	18,028		
Foundation	20,630	32,460	10,120		
Salary budget	18,391	18,390	15,659		
to state account					
Grants &					
Contracts					
Support of	0	0	600		
Anthro project					
Support of	0	0	3,793		
SOAR Project					
Douglass		6,212	2,490		
Grant-NEH					
Recovery Hub		20,579	45,967		
for American					
Women					
Writers-NEH					
(Level 1)					
Recovery Hub	7,121				
for American					
Women					
Writers-NEH					
(Level 2)	22.225	04.040			
Community-	23,625	31,842			
Oriented Digital					
Engagement Scholars					
(CODES)-NEH					
` '	12,800				
Expanding Access to the	12,000				
Digital					
Humanities in					
St Louis					
Establishing a	5,323				<del> </del>
Dynamic	0,020				
Language					
Infrastructure					

Community of					
Science					
Madison	37,284				
County at the					
Migratory					
Crossroads	00.000				
Realizing	60,000				
Inclusive Student					
Engagement in					
the Digital					
Humanities					
Total	189,810	143,273	96,817		
Revenues	109,010	143,273	30,017		
Revenues					
Francisti ma a*	<b>I</b>	I		1	
Expenditures*	100 -00				
Salaries	128,529	92,587	59,846		
Student	2,964	5,135	4,468		
Wages					
Office	12	250	250		
Supplies					
Benefits	17,280	6,283	7,056		
Medicare	973	1,213			
Billing					
Salary Sweep	14,477				
Op Auto	94				
Travel	1,251				
Participant	42,351				
Support Costs					
Indirect	50,535				
Costs-grant					
related					
Contractual	8,506				
Services					
Total	266,972	37,805	71,260		
Expenditures					
Revenue Minus	*(77,062)	12,742.58	25,557		
Expenditures					

<sup>\*</sup> Please note: There are three factors explaining this loss:

<sup>1.</sup> In our IBHE agreement, the College of Arts and Sciences agreed to cover 68% of the IRIS Center's Research Assistant Professor salary, or \$29,825; they did not make the transfer for FY23 until the FY24 fiscal year.

- 2. The University swept \$14, 477 from our account as they were seeking a process to recover lapsed salary; that money has since been returned.
- 3. The remainder of the loss is an accounting issue resulting in grant expenditures and reimbursements falling across two fiscal years.

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
Faculty	.5	.5	.5		
Research Faculty	1	1	1		
Staff	.4	.1			
Total Staffing	1.9	1.6	1.6		

<sup>\*</sup>DeSpain and Hildebrandt each devote the equivalent of 25% time to the center throughout the year to the Center and are compensated with one course buyout per semester and a month of summer salary. An administrative assistant works for 5 hours per week on Center-related administrative duties.

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

(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
۷.	Geritei/institute	SIUE)
3.	Date	February 27, 2024
4.	Director	Yan Zhang
	4.1 Telephone	618-659-6737 ext. 242
	4.2 E-mail	yzhang@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	Activity (check all that apply)
	Instructional	X
	Research	X
	Public Service	X

<sup>\*</sup> 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 biofuel 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 and products to stimulate the bioeconomy
- Research: To utilize our relationships with government, industry, academia and trade to conduct contractual and grant-funded research
- Education: To develop and provide hands-on training to prepare the bioeconomy workforce of tomorrow.

#### 9.3 Objectives

- Educate and inform consumers and policymakers on biofuels benefits and policy needs
- Assist industry, trade, and academic research partners in the commercialization of new products and technologies.
- Lead or collaborate on research projects designed to increase bioprocessing efficiency, develop or investigate the pathways to optimize the production of biobased 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

- 1. President of Southern Illinois University who shall be Chairman;
- 2. Director of Illinois Department of Commerce and Economic Opportunity;
- 3. Director of Illinois Department 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 Agriculture and Life, Physical Sciences at Southern Illinois University Carbondale
- 8. Dean of the College of Agricultural, Consumer, and Environmental Science, University of Illinois at Champaign-Urbana;

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 guorum.

#### 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.

There was one NCERC Advisory Board and Stakeholders Meetings: October 6, 2022

#### 11. Annual Performance

#### 11.1 Performance Measures \*

Mea	sure	Target for Year	Results in Year
1.	Presentations	4	6
2.	Publications	1	1
3.	Contracts	5	8
4.	Grants	4	7
5.	Proprietary technology developed	1	2
6.	Outreach	20	41

<sup>\*</sup> 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)

- With the effort of the NCERC team, we continue to build the pipeline of contractual clients, at the pilot plant and lab scale, and establish NCERC's prominence in grant awards.
- The Workforce Training Program was strong and popular, with NCERC having 20 student workers, graduate students and Interns, five visiting research fellows and one post-doctoral fellow
- The \$1.9M IDCEO Wet Lab Grant started to see its fruition with new bioreactors built, new pretreatment vessels and downstream processing vessels shipped to NCERC and utilized for research
- Three funded BioMADE proposals: ALAKA'I (Aloha Life-Science Academy; Knowledge Advancing Industry) – funded proposal in partnership with the University of Hawaii, Hilo; one funded with University of Minnesota, and the third one with a start-up company from Omaha, NE.

- One funded project from the Renewable Fuels Association
- NCERC attended numerous national biofuel and bioproduct conferences and presented innovative technologies
- Dr. Jie Dong contributed two DOE-funded projects and one USDA-funded project

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

# 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 80 technologies now in the commercial marketplace, NCERC has provided valuable services to the bioeconomy, 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. NCERC has a robust Job Shadow Program, employs numerous student workers, has created a well-defined Internship Program, is utilizing Graduate Assistants and Research Assistants on all grant-funded work, and has hired a postdoc specializing in agriculture bioengineering and techno-economic analysis.

#### 11.4 Evidence of Support for Center/Institute Objectives

NCERC achieves its objectives through its mission of ACRE: Advocacy, Commercialization, Research, and Education. As the legislative, educational, and industry-focused services and activities demonstrate, NCERC worked hard to fulfill its reputation as a private/public partnership success story in FY23. Below is a summary of the activities of the NCERC team.

**John Caupert**, as the Center Director, John served on numerous committees for the Agriculture Advisory Council, District of Illinois, American Coalition for Ethanol (ACE), BIO, BioSTL Coalition, Growth Energy, Illinois Corn Growers Association, Illinois Farm Bureau, International Fuel Ethanol Workshop, National Corn Growers Association, Renewable Fuels Association, etc.

Jackie Hayes, as the Business Director, Jackie served on numerous committees for Alternative Fuels & Chemicals Coalition, American Coalition for Ethanol, BioMADE BIO, Growth Energy, Illinois Alliance for Clean Transportation, Renewable Fuels Association, St. Louis Agribusiness Club, SIUE Staff Senate, Young Professionals Network (YPN) of the Renewable Fuels Association, Young Friends Committee of Danforth Science Center, etc..

**Dr. Yan Zhang**, as the Research Director, led the technical presentations at numerous national conferences to present the excellence of NCERC's research development and help NCERC attract more clients and collaborators. In addition, she led the publication of an analytical testing method on the quantification of cellulosic ethanol production from *in situ* fermentation, which has been a controversial subject between the corn-to-ethanol industry and the US EPA for years. She also led the three funded grants from BioMADE. She worked with Dr. Mingjun Ma, the postdoc at NCERC, to develop a proprietary low-cost low-carbon intensity pathway to convert various wastes to sugars and ethanol and build the first **Cellulosic Sugar and Ethanol Library** in the U.S. She also led the research team to develop an innovative technology to double cellulosic ethanol production from in situ corn to ethanol fermentation

**Dr. Jie Dong,** as the Fermentation Scientist at NCERC and Assistant Professor at the Department of Chemistry, landed two DOE-funded projects and one USDA-funded project related to cutting-edge research on making biofuels.

**Jared Burns**, Plant Operation Manager, led about 10 months of plant contractual trials which led to approximately \$1.5M in revenue generation.

# **Conferences, Meetings, Visits**

**July 2022** 

# **ALAKA'I Bootcamp**

(BioMADE funded grant)

Hilo, HI

# Visit the Green Plains Ethanol Plant

Madison, IL

# August 2022

# **American Coalition for Ethanol Annual Conference**

Omaha, NE

# September 2022

# **Southern Illinois Hemp and Cannabis Symposium**

(booth display and poster)

Carbondale, IL

# **Renewable Fuels Association Annual Meeting**

Des Moines, IA

# **Growth Energy Biofuel Summit**

Washington, DC

# October 2022

# **NCERC Annual Stakeholders Meeting**

IL Department of Agriculture Director Jerry Costello speaking at the NCERC Facility

# **Fuel Ethanol Lab Conference**

(technical presentation)

Omaha, NE

# **BioMADE 4S Committee Meeting**

Virtual

# **Advanced Bioeconomy Leadership Conference**

(booth display and poster) San Francisco, CA

# **Export Exchange**

Minneapolis, MN

# Lewis & Clark Community College Industrial Electricity Program Tour at NCERC

# Madison County Agriculture Teachers Tour at the NCERC Facility

# November 2022

# **BioMADE Annual Meeting**

Virtual

# **Alternative Fuels & Chemicals Coalition Conference**

(technical presentations)
Washington, DC

# January 2023

# **BioMADE 4S Committee Meeting**

Virtual

# St. Louis Agribusiness Club Meeting

St. Louis, MO

# **SIUE Staff Senate Meeting**

Edwardsville, IL

# February 2023

# **SIUE Staff Senate Meeting**

Edwardsville, IL

# Tour for IL FFA

Edwardsville, IL

# **Waterloo High School Career Fair**

Waterloo, IL

# **Annual Meeting of Mon-Clair Corn Growers**

Waterloo, IL

# **Danforth Young Friends Meeting**

St. Louis, MO

# Renewable Fuels Association's National Ethanol Conference

Orlando, FL

February 28 - March 2

# March 2023

# Mascoutah High School Job Fair

Mascoutah, IL

# St. Louis Agribusiness Club Meeting

St. Louis, MO

# NCERC Hosts Government Officials for Roundtable Discussion

Congresswoman Nikki Budzinski (IL-13), U.S. Department of Agriculture (USDA) Rural Development Under Secretary Xochitl Torres Small and Illinois USDA Rural Development Director Betsy Dirksen Londrigan met with local leaders and community partners during a roundtable discussion at NCERC, and the group discussed USDA grants and common issues facing rural communities in Central and Southern Illinois

# **Growth Energy's Executive Leadership Conference**

Dana Point, CA

# **Advanced Bioeconomy Leadership Conference (ABLC)**

Washington, DC

(John, Jackie, and Yan met with key staff at the Environmental Protection Agency, and John and Jackie also met with staff members representing the offices of Congresswoman Nikki Budzinski, Congressman Mike Bost, Senator Tammy Duckworth, and Senator Dick Durbin)

# **April 2023**

# **Danforth Center Young Friends Meeting**

St. Louis, MO

# Meeting with Congressman Bost Staff at NCERC Facility

# **BioMADE Annual Meeting**

Minneapolis, MN

# **SIU Board of Trustees Meeting**

Carbondale, IL

# **Monroe County Conservation Day**

Waterloo, IL

# SIU System Day at State Capital

Springfield, IL

# May 2023

# **Tour for Farm Credit of Illinois**

NCERC Facility

# **SIUE Staff Senate Meeting**

Edwardsville, IL

# St. Louis Agribusiness Club Meeting

St. Louis, MO

Midwest Biomanufacturing Summit by BioMADE Omaha, NE
40 Under 40 Lunch at the Danforth Plant Science Center St. Louis, MO
June 2023 Department of Energy Workshop on Energy Crop Kansas City, KS
Fuel Ethanol Workshop (technical presentation and booth) Omaha, NE

# 11.5 Evidence of Organizational Effectiveness

# Organizational Effectiveness:

FY23 continued to progress with active contractual projects, funded research projects, and innovative technologies. The outreach team size has increased which led to an increased number of conferences, visitors and meetings NCERC participated in. The workforce training activities were also stronger with large increase in number of students and visiting fellows.

Compared with the past year, the success achieved by the NCERC team came from::

- 1. More competent team members: in addition to hiring a postdoc for the research team, we hired more research fellows, who were fresh out of college but became engaged in both the pilot plants and the lab, and quickly, they became the pillars to support various projects
- 2. The existing team members are more experienced and productive: Dr. Jie Dong became productive in landing research grants due to his years of efforts in networking and collaboration; Jared Burns became more efficient in leading the operations in the plant on contractual projects
- 3. The support from SIUE is still going strong

12. Institutional Assessment

# 12.1 Date of Last Review Last meeting of the Illinois Ethanol Research Advisory Board, October 6, 2022 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: National Corn-to-Ethanol Research Center (NCERC)

Financial Resources	FY23	FY22	FY21	FY20	FY19	FY18	FY17
Revenues							
Beginning Cash	9,177,3 35	7,883,947	7,123,68 8	5,696,078	4,014,25 8	2,940,561	1,479,2 84
State Appropriations	1,210,0 34	1,322,520	1,322,94 9	1,301,770	1,300,00 0	1,412,950	293,310
Client Contractual Research	1,588,6 04	1,708,889	814,504	2,161,677	2,808,92 6	4,485,600	2,953,9 42
Grants	901,28 4	228,745	-	-	143,357	703,860	504,825
Other Revenue	48,619	70,035	71,795	102,226	115,699	289,788	
Foundation	100,00 0	100,000	100,000	100,000	100,000	59,402	137,000
Total Revenues	3,848,5 41	3,430,189	2,309,24 8	3,665,673	4,467,98 2	6,951,600	5,368,3 61
Expenditures*							
Salaries	1,040,3 35	824,790	720,607	1,030,826	1,069,54 2	1,813,360	1,273,3 41
Fringe Benefits	24,340	206,018	104,182	140,694	170,103	328,045	300,076
Operational Expenses	3,070,4 94	1,105,993	724,200	1,066,544	1,546,51 7	2,290,490	854,384
Total Expenditures	4,135,1 69	2,136,801	1,548,98 9	2,238,064	2,786,16 2	4,431,895	2,427,8 00
Cash + Revenue Minus AR and Expenditures	8,890,7 06	9,177,335	7,883,94 7	7,123,687	5,696,07 8	4,014,258	2,940,5 61

Staffing (Full Time Equivalent)	FY23	FY22	FY21	FY20	FY19	FY18	FY17	FY16
Faculty	2	4	2	2	4	5	1	1
Staff	13	13	12	36	36	40	22	16
Student Workers, Interns, GA's	20	9	15	10	15	30	22	15
Visiting research fellows	5							
Post Doc – Research Fellows	1	1	0	0	0	0	0	2
Total Staffing	41	27	29	48	65	75	45	34

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

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

1.	Reportir	ng Institution	SIUE
0	O a vata vill		CILIE Hair consite Muse come
2.	Center/I	institute	SIUE University Museum
3.	Date		3/4/2024
4.	Director		Erin Vigneau-Dimick
	4.1	Telephone	618-650-2996
	4.2	E-mail	evignea@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 S	State Statute	N/A
	(ii pertinoi	,	
7.	Reporting Unit		College of Arts & Sciences
8.	Type		Activity
			(check all that apply)
	Instruct	ional	X
	Researc		X
	Public S	ervice	X

<sup>\*</sup> 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 36,000 two- and three-dimensional objects of fine art, architecture, history, ethnology, archaeology, and the natural sciences. Highlights of the collection include the Fine Arts Collection which encompasses paintings, prints, and sculpture, the Louis Sullivan Architectural Ornament Collection, the anthropological collections numbering more than 20,000 objects with strengths in Native American, Asian, and African ethnology, and the natural history collections with 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 Elza Ibroscheva; Assoc. Provost for Academic Affairs
- Erin Vigneau-Dimick; Executive Curator, University Museum
- Kyle Moore: Director of Development, SIUE Foundation
- Professor Kevin Leonard; Dean, College of Arts & Sciences

# 11. Annual Performance

10.2

# 11.1 Performance Measures \*

Mea	sure	Target for Year	Results in Year
1.	External Exhibits	2 exhibits	2 exhibits
2.	Academic Research (Faculty and Student)		32 researchers
3.	Public/Scholarly Research		14 researchers
4.	Lectures Programming		3 programs
5.	External Grants (proposed or awarded)	1 grant	1 grant
6.	Objects Inventoried	5000 objects	3700 objects

<sup>\*</sup> 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

• Earth, Water, Fire Exhibit

Fuller Dome Gallery – Center for Spirituality and Sustainability Curated by Emily Eckles, John Justice, Morgan Lindner, & Abbigayle Shaefer (Graduate students from HIST582) with Erin Vigneau-Dimick July 29, 2022 – August 31, 2022

Weave, Coil, Twine, Plait, Knot: Traditional and Contemporary Basketry Exhibit

Edwardsville Arts Center, Edwardsville, IL Curated by Erin Vigneau-Dimick and Sun Smith-Foret February 10 - March 26, 2023

# Lectures/Programs

• Earth, Water, Fire Curators' talks

Fuller Dome Gallery - Center for Spirituality and Sustainability August 25, 2022 September 8, 2022

• Weave, Coil, Twine, Plait, Knot Special Panel Lecture

Edwardsville Arts Center, Edwardsville, IL Presenters: Erin Vigneau-Dimick, Sun Smith-Foret, Kate Anderson, Laura Strand, & Jane Sauer March 18, 2023

# Grants

Proposed

Institute for Museum and Library Services

Museums for America Collections Stewardship Grant, FY23

**\$ 175,093.00** request: 11/14/2022

SIUE University Museum Collections Inventory Project Stage III

# Collections Inventory Project: Stage II

Inventory of 10,000 of the museum's 36,000+ stored collections focusing on Native American, African, Oceanic, and Southeast Asian regional artifacts

- Stage II commenced 1/1/2022
  - 2,764 objects for Stage II inventoried in FY2022
    - 20,036 digital images have been attached to catalog records during Stage II during FY22
  - 3,710 objects for Stage II inventoried in FY2023
    - 16,653 digital images have been attached to catalog records during Stage II during FY23
  - Stage II: extension applied for from ILMS and granted
    - (New completion date = 8/31/2024)

# Collections Inventory Project: Stage III

Inventory of 10,000 of the museum's 36,000+ stored collections focusing on South American artifacts, American History collections, and three-dimensional contemporary art objects

• Grant request for \$175,093.00 submitted to IMLS in FY23 for Stage III

# 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 <u>educational achievement</u> through its instructional and research programs increasing K-12, undergraduate and graduate student's knowledge and understanding of fine art, world cultures, and history as well as providing professional expertise and training in museological studies.
- 2. <u>Improve College Affordability:</u> 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. <u>Strengthen Workforce Development</u>: 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. <u>Link Research and Innovation to Economic Growth</u>: New software, digital imaging and technological advancements have improved access to and management of the UM's collections for faculty, students, and the public. 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. <u>Prepared and Diverse Students</u>: 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. <u>High-Quality Programs:</u> The UM staff work directly with faculty to optimize opportunities for museum facilitated hands-on research with artifacts. Access to collections objects is 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. <u>High-Quality, Dedicated Faculty and staff:</u> 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. <u>Outreach and Partnerships:</u> 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, St. Louis' City Museum, the Katherine Dunham Center for the Arts and Humanities and the National Building Arts Center. 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 36,0000+ 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, received a second federally funded grant in FY22 for \$153,459 to execute Stage II of the project which is now in process. In FY23 the UM applied for additional funding of \$175,093 from the Institute for Museum and Library Services to fund Stage III of the project.

# 11.4 Evidence of Support for Center/Institute Objectives

- 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, <u>more than 503 items</u> during FY23, 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 FY23 for use in the Anthropology Department's Ethnology Museum Laboratory to benefit student and faculty research.
    - o 3 graduate projects and exercises served
    - o 51 museum objects loaned
  - The UM welcomed more than <u>46</u> faculty, students, and independent researchers in FY23 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 <u>formal and informal hands-on educational</u> experiences utilizing art and artifacts from the collections. These have included:
    - o on-site faculty led <u>interactive research experiences</u> for students both on site in the archive and elsewhere on campus (Museum Studies, Art & Design, Anthropology, History, Biology)
      - HIST580: Intro to Museology, HIST581: Collections Management,
         HIST582: Museum Exhibit Practicum; HIST 590 Internship
      - ANTH420 Museum Anthropology; ANTH490 Senior Assignment, ANTH570: Artifact Analysis
      - ART506 Professional Practices
      - BIOL590 Topics in Biology]
    - o Graduate <u>student directed curation</u> of exhibits for Museum Studies courses
      - HIST590 Internships in Museology; HIST582 Museum Exhibit Practicum.
    - o 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 <u>external researchers</u> both locally and nationally on inquiries and projects involving fine art, natural history, ethnography and history including scholars and curators:

- Heather Holmes, Art Studio Lab Supervisor, University of Alabama at Birmingham
- o Jacob Phillips, Lab Supervisor, University of Alabama at Birmingham
- o Robert Luken, Collector, Researcher, Alton, IL
- o Emory Cox, Archivist, The National Building Arts Center, Sauget, IL
- o Sun Smith-Foret, Independent Curator, Artist
- 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 during FY23 included:
  - Karl Huntley: "Native American Platform Pipes from the SIUE Collections"—
     Anthropology 570, Spring 2023
  - o Johnathan Justice: "Casa Grandes Effigy Vessel" Anthropology 570, Spring 2023
  - Reed Richardson: "Descriptive Analysis of SIUE Anasazi Sacotone Jar" -Anthropology 570, Spring 2023
- Support Diversity, Equity, and Inclusion with the Undergraduate Research and Creative Activities Assistantship (URCA): Diversity Demography Project – Exec. Curator Vigneau-Dimick supervised undergraduate internships: HIST410]
  - o Kaia Cosgriff Fall 2022, Spring 2023
  - o Mandy Lynne Spring 2023
- 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.
    - o <u>Exhibitions</u>
      - Earth, Water, Fire Exhibit

Fuller Dome Gallery – Center for Spirituality and Sustainability Curated by Emily Eckles, John Justice, Morgan Lindner, & Abbigayle Shaefer (Graduate students from HIST582) with Erin Vigneau-Dimick July 29, 2022 – August 31, 2022

 Weave, Coil, Twine, Plait, Knot: Traditional and Contemporary Basketry Exhibit

Edwardsville Arts Center, Edwardsville, IL Curated by Erin Vigneau-Dimick and Sun Smith-Foret February 10 - March 26, 2023

- Programming
  - Earth, Water, Fire Curators' talks
     Fuller Dome Gallery Center for Spirituality and Sustainability
     August 25, 2022, and September 8, 2022
  - Weave, Coil, Twine, Plait, Knot Special Panel Lecture
     Edwardsville Arts Center, Edwardsville, IL
     Presenters: Erin Vigneau-Dimick, Sun Smith-Foret, Kate Anderson, Laura Strand, & Jane Sauer
     March 18, 2023

- Active loan program, enriching community relationships regionally and statewide
  - Cahokia Mounds Historical Site (ongoing)
  - Parkin Archeological State Park (ongoing)
  - Edwardsville Arts Center Sculpture Garden (ongoing)
  - The City Museum, St Louis, MO (ongoing)
  - National Building Arts Center (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 12/2024
  - Advisory council
    - o one full council meetings held in FY23]
  - NAGPRA: Native American Graves Preservation and Repatriation Act
     Enacted in 1990, NAGPRA is a federal law that requires museums and federal agencies to identify Native American human remains, funerary items, and objects of cultural significance in their collections and collaborate with Tribes and Native Hawaiian organizations to repatriate them.
    - o In 2022, Dr. Sheila Caldwell, Vice President for Anti-racism, Diversity, Equity, and Inclusion organized a SIU System NAGPRA Compliance Committee of which the SIUE UM Executive Curator is a member.
    - o In September 2022, SIUE NAPRA committee members met to review items from the collection for NAGPRA concerns
    - Dr. Caldwell formed a sub-committee (with staff and faculty from all 3 SIU campuses) to work on creating a position description and hiring a NAGPRA Program Coordinator/Director
      - The sub-committee met 3 times during the FY23 year.

# Accessions

During FY23 more than <u>741</u> individual objects were accessioned and have had records added to the catalog. These are primarily not new acquisitions but objects that were already in the collections and on display. The discovery and resultant cataloging of these objects was a direct result of the thoroughness and accuracy of the wall-to-wall Collections Inventory Project's processes and one of the intentional goals of the project.

- o <u>363</u> of these objects are from the Milton Harrington donation and were stored or put on display without having had their cataloging completed.
- 123 of these objects are transfers from other departments in the university of gifts or purchase awards of artworks that need to be placed within the collections for safekeeping and tracking.
- o <u>87</u> of these objects are donations to the museum whose paperwork was never completed, and the documentation was not accurately recorded.
- o 7 of these objects are new donations to the museum
- o <u>161</u> of these objects are deemed Found-In-Collections and will be processed according to Museum policy and Illinois state law.

# • Intellectual and physical control of collections

Multi-stage full inventory continues in FY23 (full collection is projected at more than 36,000 objects. Rough projections suggest 9 FTE years to complete.) To increase the preservation of the collection a staged approach was adhered to as an aspect of the inventory.

- During the inventory process objects were surveyed for condition and flagged for follow-up.
- o Some items at risk were removed from display during the onsite inventory.
- o Limited stabilization measures and simple housing practices were performed as fragile or at-risk items were inventoried in the archive.

# Collections Inventory Project: Stage I

Inventory of 10,000 of the museum's 36,000+ displayed and stored collections

- Stage I completed 12/31/2021; total of all objects inventoried = 10,809. Final report submitted to IMLS
- 23,879 digital images were attached to catalog records during Stage 1 of the Inventory Project.

# Collections Inventory Project: Stage II

Inventory of 10,000 of the museum's 36,000+ stored collections focusing on Native American, African, Oceanic, and Southeast Asian regional artifacts

- o Stage II commenced 1/1/2022
  - 2,764 objects for Stage II inventoried in FY2022
  - 20,036 digital images attached to catalog records during Stage II during FY22
  - 3,710 objects for Stage II inventoried in FY2023
  - 16,653 digital images attached to catalog records during Stage II during
     FY23
- Stage II: extension applied for from ILMS and granted
  - (New completion date = 8/31/2024)

# Collections Inventory Project: Stage III

Inventory of 10,000 of the museum's 36,000+ stored collections focusing on South American artifacts, American History collections, and three-dimensional contemporary art objects

• Grant request for \$175,093.00 submitted to IMLS in FY23 for Stage III

# 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.
- The UM Executive Curator serves on graduate thesis committees for Museum Studies/History and Cultural Heritage and Resource Management masters candidates.
- UM staff provide indirect teaching and major instructional support for HIST580, HIST581, HIST582, 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, ART470, ART506, ART520, HIST211, HIST304, HIST306, HIST309, HIST352, 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 <u>exhibitions and programming</u> 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 <u>responsible steward</u> 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 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.
  - <u>Improve governance and decision-making</u> 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 2022 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 (current estimates project the collection holdings at more than 35,000 objects. Rough projections suggest 9 FTE years to complete full inventory.
  - Stage 1 (10,809 objects; completed December 2021) focused on 3 strategic areas of the collection:
    - 2,128 displayed objects across three SIUE campuses in more than 60 buildings (a group chosen because these were the most inaccurately tracked and the most at risk for environmental exposure concerns.)
    - 4,203 items of two-dimensional Fine Art (chosen because of high usage.)
    - 3,112 objects from the Native American collection (chosen to increase knowledge for NAGPRA compliance)
  - Stage 2 (Begun January 2022; expected completion August 2024), (2,764 objects inventoried in FY22, 3,710 objects inventoried in FY23) focuses on 3 strategic areas of the collection:
    - Native American and Oceanic collections (for NAGPRA compliance)
    - African collection (because of nature of organic material and environmental risks)
    - Asian collection
  - Stage 3 (Begin January 2024; expected completion August 2025) will focus on:
    - Central American, American History and 3-dimensional contemporary art collections
- Enhance the visibility of the Museum and its collections to the broader campus and the surrounding community
  - o Art on Campus program, begun in 1966, where meaningful art was placed throughout the buildings and grounds, has distinguished this campus from many others. More than 2,100 of the UM's objects and artifacts are displayed throughout the three campuses. UM staff maintains the displayed artworks by inspecting, cleaning, as well as deinstalling and reinstalling objects regularly as buildings are renovated and refurbished.
    - All artworks and artifacts are identified by artist, title, media, and catalogue number and 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.
  - o Art-in-Architecture Program (IL Capital Development Board)
    - UM staff preserve and maintain the multiple large public sculptures on SIUE's three campuses which include 7 artworks commissioned through the Illinois Capital Development Board's Art-in-Architecture program.
    - UM Executive Curator serves as the chair of the SIUE Art-in-Architecture committee. In FY23 the AIA committee began meeting to create the RFQs for the SIUE Health Sciences Building.
  - o Development of online presence: plan begun in May 2020 which includes:
    - University Museum web page (in process expected completion 2024)
    - Online exhibits (in coordination with SIUE's IRIS Center)

- Multiple virtual exhibits now available on Scalar and MuseumViews platforms
- Continuation of social media outreach
- Development of <u>accessible online catalog</u> (seeking new funding sources in FY24)
  - Digital Access Expansion project data cleanup and transfer
  - Cloud based catalog Public Access feature
- Systems Management and Accountability: Ongoing integrative practices which affect the UM's instructional, research, and public service capabilities across the board. Areas that continue to be improved, 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 are regularly reassessed and structural and organizational improvements are continually made to the records area, workshops, and storage spaces encompassing surplussing of antiquated and excess equipment and materials, consolidating and expanding collections storage, and reorganizing and increasing dedicated working and teaching space.

12.1	Date of Last Review	FY 20
12.2	Decision at Last Review	Center/Institute in Good Standing  XX Center/Institute Flagged for Priority Review Center/Institute Suspended
12.3	Explanation	Priority review was based on critical staffing needs and pending grant proposals. Interim review will be FY 24

12.

Institutional Assessment

# **RESOURCES:** SIUE University Museum

Financial Resource	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State Appropriations	91,163	85,517	86,562	79,866	48,376
Income Fund	60,775	57,011	57,708	53,244	72,563
Grants & Contracts	88,343	80,181	79,863		
Foundation Funds	207				
Transfers from CAS		2,871			6,652
Other Revenue/Sales					
ICR from CAS	3,898	2,798	1,298		
Total Revenues	244,386	225,507	225,431	133,110	127,591
Expenditures*					
Salaries (staff & graduate assistants)	180,055	154,507	182,128	113,180	103,917
Grant Fringe Benefits (non-state acct.) account)	13,415	8,701	18,355		
Grant Facilities and Admin costs	25,987	14,855	31,153		
Wages		0	0	0	0
Travel		0	147	0	426
Equipment		0	222	406	2,291
Commodities	1,457	834	782	1,807	4,116
Contractual Services	10,437	10,592	13,013	10,318	9,495
Automotive	3,648	5,417	5,013	5,401	5,567
Telecommunication	1,362	1,341	1,227	1,346	1,357
Other	42				
Total Expenditures	236,403	196,247	252,040	132,458	127,169
Revenue Minus Expenditures	7,983	29,260	(26,609)	652	422
Revenue minus Expenditures	1,303	23,200	(20,009)	032	422

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

# **RESOURCES (Cont.):** SIUE University Museum

Staffing (Full Time Equivalent)	FY2023	FY2022	FY2021	FY2020	FY2019
Faculty				.33 FTE	1.5 FTE
Staff (including grant)	3.5 FTE	3.125 FTE	3.67 FTE	1.17 FTE	.5 FTE
Graduate Assistants	0.75 FTE	0.75 FTE	0.75 FTE	.90 FTE	.43 FTE
Student/Temp workers		0.13 FTE	0.125 FTE	.25 FTE	.34 FTE
Total Staffing	4.25 FTE	4.005 FTE	4.545 FTE	2.65 FTE	2.77 FTE

# CENTERS AND INSTITUTES ANNUAL REPORTING

Report For: July 1, 2022 - June 30, 2023

(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	2/21/2024
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
	(ii portinont)	
7.	Reporting Unit	Office of the Chancellor/University Marketing & Communications
8.	Туре	Activity (check all that apply)
	Instructional	X
	Research	
	Public Service	l x

<sup>\*</sup> 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

WSIE 88.7 "The Sound" is a 50,000-watt, non-commercial FM radio station, which serves the SIUE campus, the Metro-East and the entirety of the Greater St. Louis region. WSIE provides our listening audience with a rich blend of Jazz, Smooth Jazz, Blues and Easy R&B, among other "companion" genres of music. We also provide three community-oriented shows (*The Financial Café*, *The SIUE Beat* and *On Another Note*), which air throughout our weekend programming. WSIE also serves as a training ground for over 40 SIUE students, former students and community volunteers who wish to learn and hone their craft in a hands-on, working environment.

# 9.2 Mission

WSIE 88.7 "The Sound" is a non-commercial, community supported radio station which strives to celebrate, promote and educate on the institution of Jazz, in all its forms, throughout Edwardsville, the Greater St. Louis region and beyond. WSIE is also an educational facility, which serves as a professional training ground for SIUE students interested in pursuing a career in the field of Mass Communications and 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. Joseph Pott, Mr. Musonda Kapatamoyo, Mrs. Kedra Tolson, Mr. Bob Kochan, Dr. Kevin Leonard and Mr. Michael Silverman.

# 10.2 Number of Meetings (In This Year) 1

### 11. Annual Performance

# 11.1 Performance Measures \*

Mea	sure	Target for Year	Results in Year
1.	Generate \$12,000.00 per month in revenue	\$144,000.00	\$165,810.00
2.	Increase audience size by ten percent	Average weekly	Average weekly
		cume of 62,000	cume of 86,200
3.	Increase Social Media footprint by 15	4044 follows on FB	4433 follows on FB
	percent		
4.			
5.			

<sup>\*</sup> 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)

- •In our continuing efforts to purchase and install a new HD transmitter, we received a disbursement of \$150,000.00 that was deposited into a "WSIE Special Projects" account with the SIUE Foundation. We are currently working closely with SIUE administrators and the Kranzberg Arts Foundation in order to forge an agreement that will cover the remainder of the costs associated with the purchase and installation of a new transmitter.
- •We have secured \$110,000.00 in funding from the Steward Family Foundation, which will be used to purchase and install new guy wires and anchors for the WSIE broadcast tower. A recent inspection indicated that the wires and anchors are in bad enough shape that there is a genuine concern over tower stability.
- •WSIE's student volunteer base continues to grow. We jumped from 24 student volunteers in fall of 2023, to 32 student volunteers in spring of 2024.
- •With so many student volunteers, we had to cut the overnight on-air shifts in half in order to accommodate all of the new volunteers. We had all on-air shifts filled and all basketball board-op shifts filled as well.
- •We effectively made a presentation in front of the Mass Communication Accreditation Board, asking for permission to allow students in need of internship credit to intern with WSIE and SIUE Marketing and Communication. The request was approved, so in addition to our WSIE student volunteers, we now have five newly created internship positions that students can fill for their internship credit.
- •WSIE has been named a finalist in St. Louis Magazine's A-List in the category of "Best Radio Station" for three years in a row (2021, 2022, 2023) and we're currently in the middle of the nomination process for the 2024 A-List.
- •WSIE continues to be ranked within the top 18 22 stations in the St. Louis market, according to Nielsen Ratings services.
- •WSIE continues to attract the most diverse listening audience in the measurable St. Louis market, according to an average of 2023 data from Nielsen Ratings services.
- •We now boast over 50 monthly, recurring donors, as compared to just 3 in 2018.
- •WSIE continues to be a leader in the format when it comes to Jazz programming around the United States.

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. We are currently working on a campaign to broadcast promotional announcements about the newly launched SIUE GO effort.

# 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 Dean of the College of Arts and Sciences to produce and broadcast the half hour program "The SIUE Beat." 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. Internship program was set up for WSIE and Marketing & Communications in tandem with the Department of Mass Communications. Increased underwriting / community support.

12.	Institutional	Assessment
IZ.	IIISULUUUIAI	Assessinent

12.1	Date of Last Review	FY 2022
12.2	Decision at Last Review	X 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: WSIE 88.7 The Sound

Financial Resources	FY2023	FY2022	FY2021	FY2020	FY2019
Revenues					
State	.00	.00	.00	.00	.00
Appropriations					
Income Fund	.00	.00	.00	.00	.00
Grants &	7,800.00	7,300.00	12,800.00	50,675.00	.00
Contracts					
Fees from	165,810.00	111,152.25	60,110.99	56,053.00	86,665.50
Underwriters					
Rental	5.00	5,382.76	10,220.40	9,893.00	9,606.78
Revenue					
Listener Gifts to the SIUE Foundation	71,413.00	38,354.44	55,953.80	54,282.82	23,500.00
Total Revenues	\$245,028.00	\$162,189.45	\$139,085.19	\$170,903.82	\$119,772.28
Expenditures*					
Salaries	276,376.92	259,063.17	192,641.79	189,176.00	182,618.12
Employer	3,681.00				
Soc. Security	3,314.00				
Taxes	1,315.00				
Misc. Refunds	417.00				
Wages	.00	.00	.00	676.00	1,937.76
Equipment	4,366.68	424.97	.00	.00	21,272.76
Commodities	0.00	955.49	226.24	1,164.00	4,260.47
Contractual Services	26,632.11	19,598.96	20,849.79	18,442.29	17,197.72
Telecom	8,623.92	8,885.58	8,826.62	9,362.00	9,299.53
Expenditure	.00	.00	.00	.00	.00
from	.00	.00	.00	.00	.00
Foundation Account					
Total	\$324,726.63	\$288,928.17	222,544.44	\$218,820.29	\$235,962.36
Expenditures					
Revenue Minus	(\$79,698.63)	(\$126,738.72)	(\$83,459.25)	(\$47,916.47)	(\$116,190.08)
Expenditures	,	,	,	,	,

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

Staffing (Full Time Equivalent)	FY2023	FY 2022	FY2021	FY2020	FY2019
Faculty					

Staffing (Full Time Equivalent)	FY2023	FY 2022	FY2021	FY2020	FY2019
Staff	3	3	3	3	3
Student Workers	0	0	0	0	1
Total Staffing	3	3	3	3	4