## FY23 Annual Report





## **Table of Contents**

Letter from the Director	Page 1
Mission and Strategic Vision	Page 3
Organizational Structure	Page 4
Outcomes and KPIs	Page 6
Financials	Page 10
Research Highlights	Page 13
Looking to the Future	Page 15
Contact Page	Page 16





### **Letter from the Director**



Over the course of 2023, IPPRA has expanded programs and efforts to broaden the reach of public policy research at OU and beyond. Our focus continues to be to foster – both within IPPRA and across campus – nationally visible research, focused on both basic and applied research in public policy. Our efforts have broadened our international reputation for providing knowledge that advances understanding of public policy processes and promotes evidence-based policies for sustainable and effective democratic governance.

Our approach is to engage and collaborate with OU's faculty and the broader academic community, to embed the importance of public policy in our research across policy domains, and to enhance the positive impact of science and technological solutions to our most pressing problems. In keeping with our goals and approach, in FY 2023 the IPPRA team significantly broadened our collaborations with faculty at OU and across the nation to sharpen policy theory and its applications. Within IPPRA, our team of faculty, staff and students continues to build teams and execute research over an array of research projects that advance sustainable energy, strengthen national security, enhance effectiveness of education, and improve public health and disaster responses. This report summarizes our efforts and the outcomes of our work for the year.

IPPRA acts as a "force multiplier" in supporting and leading research efforts to address problems in the weather forecasting enterprise, energy engineering, educational arena, national security programs, and climate change adaptation. IPPRA utilizes a diverse set of channels for disseminating that knowledge to scholars, decision makers and the broader public. IPPRA supported articles, books, workshops, conferences, seminars and podcasts have served to deepen understanding of public policy processes, with a focus on both the institutions that enable effective policy and the resources necessary for effective policy implementation. In FY 2023, IPPRA focused on a spectrum of important policy issue areas, including:

- •the implications of cascading disruptions in defense programs for national security;
- ·the perceived societal costs of disinformation and prospects for successful polices to reduce them;
- •the impact of cascading disruptions on critical national security programs;
- ·effective risk communication for public response to wildfire threats;
- •the implications of educational policies for outcomes in American public schools;
- ·processes for gaining community support for siting critical national energy facilities;

and many others. IPPRA's success in supporting (and obtaining) new grants and contracts, new hires, and research teaming comes from our ability to build on existing expertise while developing new capacities. Of particular importance has been IPPRA's strong group of IPPRA postdoctoral and graduate researchers, who play an essential role in data collection, analysis and research reporting.

### Letter from the Director

IPPRA's KPIs tell the story, as is detailed in this report. In FY 2023 the IPPRA team published 36 articles, submitted over \$7 million new research proposals, and successfully obtained over \$4.7 million in new research funding while engaging in workshops, seminars, conferences and other venues for communicating the results of our research. These efforts built upon extensive collaborations with engineers, biologists, and physical scientists at OU and other institutions to produce the kind of transdisciplinary work that is required to address the complex, wicked problems with that confront Oklahoma, the U.S., and the world. This work is getting attention, as indicated by the 879 specific citations of IPPRA publications. Of particular importance has been our ongoing engagement and collaboration with an array of federal, state and local government agencies that provide critical services to the American public. In all of these ways, IPPRA seeks to advance the understanding of public policy and promote evidence-based policies to support sustainable and effective democratic governance.

To carry out this this research requires a top notch team of faculty, staff and students, and a robust network of collaborations and partnerships. IPPRA continues to expand its collaborations with US national laboratories, other universities, federal agencies, and others. IPPRA continues to expand and provide support professional growth for OU researchers, including faculty, research scientists and associates, postdoctoral and graduate researchers, and research practitioners. And IPPRA strives to provide a supportive and creative organizational environment to assure that we are welcoming to all and that our work is sustainable.

Overall, as this report makes clear, IPPRA continues to expand the reach and impact of its work. And we expect FY 2024 to be even better. So keep an eye on IPPRA, via on our website (ou.edu/ippra) and our social media (@OUIPPRA).

Dr. Hank Jenkins-Smith Director, IPPRA





## Mission (

The IPPRA team builds partnerships and conducts research by integrating public policy scholarship with the physical and engineering sciences to increase human well-being, improve our social choice infrastructure, and enhance resilience by addressing complex public policy problems and creating opportunities that span natural, technological, and social systems.

### Vision

IPPRA is an interdisciplinary team with decades of experience in addressing public policy challenges such as those posed by extreme weather and the changing climate, energy policy, environmental policy, the role of government intervention in pandemics, and national security. IPPRA employs a diverse range of modeling and state of the art social science methods to achieve a common systems perspective, seeking to integrate the social, natural, and technological components of a problem area. Our applications range from local to international in scope. The institutional culture at IPPRA is grounded in transdisciplinary thinking and collaboration. We emphasize finding new ways to bridge basic and applied research, thereby bringing fundamental knowledge to bear on urgent public problems.

# IPPRA Team Roles and Responsibilities







Hank Jenkins-Smith Director

Leadership Team



Dr. Joe Ripberger Deputy Director for Research



Matt Henderson Deputy Director for Research Support and Integration



Nina Carlson Deputy Director for Operations



Dr. Kuhika Gupta Assoc. Director for Energy ど Environment



Dr. Deven Carlson Assoc. Director for Education

Research Scientists



Dr. Makenzie Krocak



Dr. Andrew Fox





Dr. Ross Buchanan



Dr. Maggie Leon-Corwin

Operations Team



**Rhonda Hill** 



**Samuel Price** 

Coding Lab Manager



Julie Krutz

Research Associates



**Abby Bitterman** 



Sam Stormer



**Anna Wanless** 

12 Graduate Students 8 Undergraduate Students

# Organizational Structure

As one of the OU Vice President for Research and Partnerships' three Cross-Cutting Research Institutes, IPPRA brings public policy expertise to collaborative research projects with topics including public health, national security, public education, disaster management, and risk communication. IPPRA has the unique ability to serve as a research center-of-gravity in forming cross-cutting research teams, offering both substantive expertise and collaborative support for campus-wide research efforts. IPPRA offers:

- Teaming and partnerships
- Operational support and sponsored research capabilities for affiliates and collaborators
- Data infrastructure and analytical support



# Outcomes and KPIs

### **High Quality Expertise**

Collaboration on Interdisciplinary/Transdisciplinary Proposals



**Policy Reports/Presentations/Briefings** 



Workshops/Conferences/Policy Events



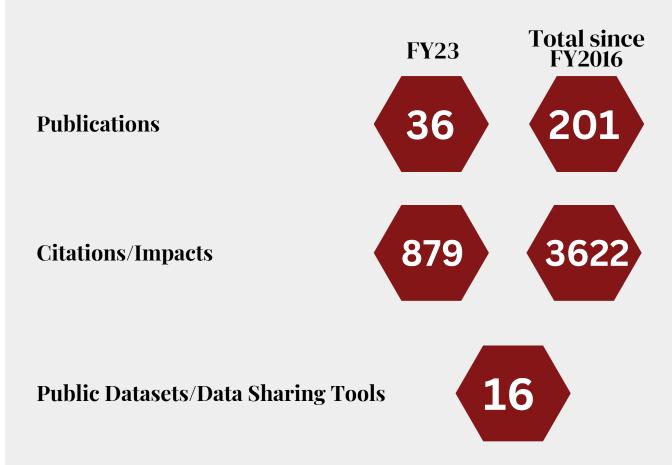
Consultation/Collaboration with Decision Makers/Officials/Industry



IPPRA-led and IPPRA-supported projects take on "wicked problems" at all levels, engaging extensively with policy makers to enable solutions that benefit local, state, national and global communities. In FY2023, IPPRA gave 52 presentations or briefings, hosted or facilitated 20 applied workshops and policy events, and collaborated on 6 interdisciplinary proposals with applied foci. In addition, our team collaborated and consulted over 40 times with practitioners and industry on applied research topics and projects, ensuring that our work is relevant and utilized both inside and outside academic circles.

## Outcomes and KPIs (cont.)

### **Exceptional Research Products**



Across the board, IPPRA's track record of research products in FY2023 continued to be exceptional. In support of AAU Quality benchmarks, IPPRA supported a steadily rising stream of visible, actionable policy scholarship, with 36 new publications in this fiscal year alone, and over 200 published works since 2016. Our publications were heavily cited, with works by IPPRA faculty and staff cited nearly 900 times this past year.

In FY23, IPPRA collaborated campus-wide and beyond to support production of many research products, and our data infrastructure enabled wide collaboration and analysis, including 12 public data sets and 4 interactive data sharing tools that integrate AI, text analysis, and data from new sources.



## Outcomes and KPIs (cont.)

### **Exceptional Research Activity**

**FY23 Research Expenditures** 

\$2,976,595

FY23 Submitted Core Proposals (12)

\$7,128,828

FY23 Submitted Partnered Proposals (12)

\$11,764,689

Value of New Sponsored Research Awards Received in FY23 \$4.8M

**Active IPPRA Core Awards** 

\$7.1M

**Active IPPRA Awards (Led + Partnered)** 

\$26.3M

IPPRA also continued our unique ability to serve as a research center-of-gravity in forming cross-cutting research teams, offering both substantive expertise and collaborative support in campus-wide research efforts. Our FY23 research portfolio included \$7 million in sponsored research conducted solely at IPPRA, but grew to over \$26 million in awards when including our research with significant partnerships across OU and beyond.

# Outcomes and KPIs (Cont.)

### **Workforce Development**

Post-Docs/Graduate Students/Undergraduate Students



**IPPRA Supported Trainings** 



Job Placement of Post-Docs/Graduate Students/Undergraduate Students



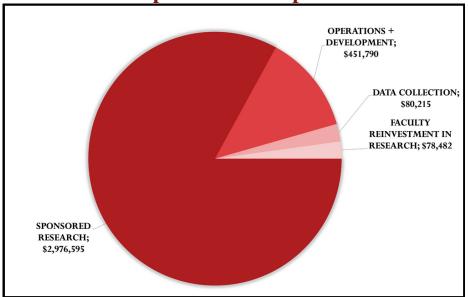
Throughout FY2023, IPPRA employed 2 post-docs, 12 graduate research assistants, and 8 undergraduate research assistants, all of whom were substantially engaged in sponsored research across nearly a dozen projects, with the students gaining quantitative, qualitative, and research management skill sets to serve them in their future career paths.

IPPRA also offered professional development trainings targeted specifically at graduate students, with topics including proposal writing.

The skills students acquire while working at IPPRA make them competitive candidates for internships and jobs; this year, 3 of IPPRA's undergraduate students obtained competitive internships at organizations such as GAO, and two master's level students graduated and went on to professional full time research careers.



**Total Departmental Expenditures** 



Total Expenditures by Sponsor	Amount
Sponsored Research	\$2,976,595
Operations	\$352,668
Development	\$83,538
Scholarships	\$15,584
Data Collection	\$80,215
Faculty Reinvestment in Research	\$78,482
Total	\$3,587,082

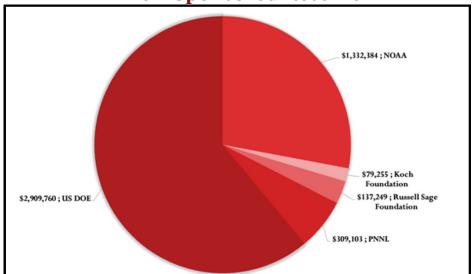
In FY23, IPPRA expended approximately \$3.6 million across our institute. As has been the case in previous fiscal years, in FY23 the large majority of these expenditures were in support of sponsored research.

In addition to sponsored research, our Institute expended approximately 10% of our resources directly for operational needs, nearly 7% on research and development support, and 0.5% on non-sponsored student support.



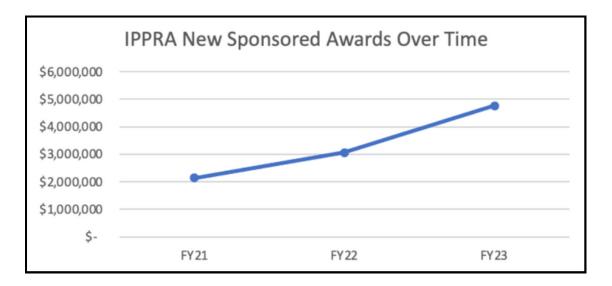
# Financials

**New Sponsored Research** 



Sponsor	Amount
NOAA	\$1,332,384
Charles Koch Foundation	\$79,255
Russell Sage Foundation	\$137,249
PNNL	\$309,103
USDOE	\$2,909,760

Total	\$4,767,751
-------	-------------

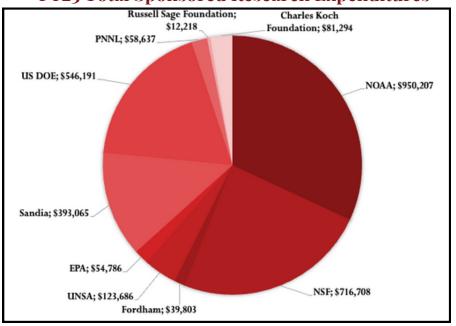


In FY23, IPPRA received approximately \$4.8 Million in new funded awards from 5 distinct funders, with some funders providing awards for multiple projects. FY23 funders included federal agencies, national laboratories, and foundations.

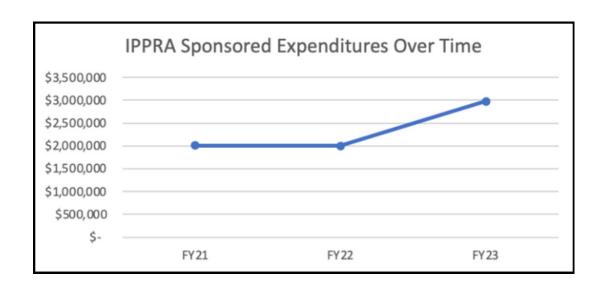
These new awards indicate a significant growth trajectory, with a year-over-year increase of 64% in new sponsored research for a single fiscal year.

# Financials

### **FY23 Total Sponsored Research Expenditures**



Total Expenditures by Sponsor	Amount
NOAA	\$950,207
NSF	\$716,708
Fordham	\$39,803
UNSA	\$123,686
EPA	\$54,786
Sandia	\$393,065
US DOE	\$546,191
PNNL	\$58,637
Russell Sage Foundation	\$12,218
Charles Koch Foundation	\$81,294
Total	\$2,976,595



In FY23, IPPRA continued our growth in sponsored research expenditures, with a total of nearly \$3 million spent on funded research. This figure represents approximate 67% growth over our previous fiscal year expenditures of approximately \$2 million.

# 

#### Awards and Accolades

IPPRA Director of Research Dr. Joe Ripberger was named the 2023 recipient of the OU VPRP's Award for Excellence in Research in the Social Sciences.



Dr. Deven Carlson, IPPRA's Associate Director for Education, was listed in the 2023 RHSU Edu-Scholar Public Influence Rankings, placing him among the nation's top 200 most influential education scholars.



### Project Highlights

### Socially Sustainable Solutions for Water, Carbon and Infrastructure Resilience in Oklahoma (S<sub>3</sub>OK)

As part of the National Science Foundation-funded S<sub>3</sub>OK project, IPPRA leadership continued to recruit new membership for the innovative Opinion Leader Advisory Network (OLAN), which connects researchers from multiple Oklahoma research institutions to dozens of opinion leaders across the state of Oklahoma. OLAN members are drawn from the public, private and non-profit sectors and represent high level decisionmakers with deep expertise across a variety of subject matter areas. Currently, the OLAN provides in-depth feedback to and applied collaborations for researchers under the National Science Foundation-funded S<sub>3</sub>OK project, which includes researchers from multiple Oklahoma institutions working collaboratively to iterate towards a framework for actionable and sustainable solutions to Oklahoma's wicked problems in water, agriculture, land use and infrastructure.

#### Integrating socially led co-design into consent-based siting of interim storage facilities

Why have efforts to site nuclear waste storage and disposal facilities so often failed? One common element is that siting efforts have rarely enabled the potential host community to meaningfully shape what it is that they are being asked to host. This project explores a qualitatively different approach to engaging with Potential Host Communities (PHCs) about siting interim nuclear waste storage facilities (ISFs), using in-person workshops and online surveys to understand public and community views about facility design and the siting process.

# Research Highlights

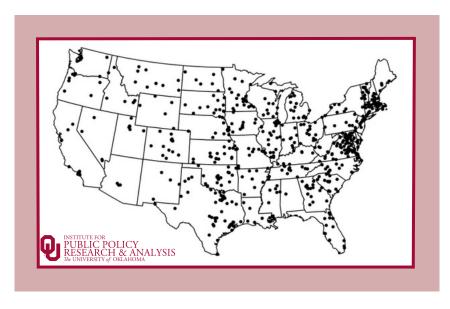
#### The Effects of the COVID-19 Pandemic on Peru's Health Policy Subsystem

IPPRA is working together with National University of San Agustín (UNSA) to create the Center for Monitoring and Control of Public Health (CMCPH) in Arequipa, Peru. The objective is to bring together investigators with expertise in public health, data collection and modeling, and data visualization create a Center that will undertake integrated public health monitoring and analysis and provide decision–making advice to local public health authorities in the Arequipa region of Peru.

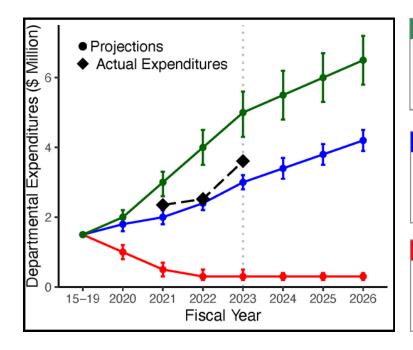
The Center will (i) design and develop a system for decision-making and electronic syndromic surveillance in real time to provide basic data necessary for accurate situational surveillance, state of spread of critical diseases in the Arequipa region, and measurement of mitigation actions, and (ii) support public health surveillance, response planning and timely problem solving, based on data, models and experience, and (iii) develop an historical database of disease incidence from archives of Arequipa hospitals and health centers. The team will also test data collection, modeling, and dashboard design to establish a baseline for robust, reliable, and efficient public health monitoring and decision-making in Arequipa.

#### **WXEM**

Around the country, severe weather events present emergency managers (EMs) with complex challenges that require them to make swift, critical decisions. EMs are a diverse population, but little is known about how they receive, process, and use forecast information. After many months compiling contact information, creating an initial database of over 5,000 emergency managers, and fielding a preliminary recruitment survey, IPPRA formed the Extreme Weather and Emergency Management (WxEM) Panel: an "active" catalog of over 700 emergency managers who have agreed to provide routine feedback on NOAA/NWS data, products, information, and decision support when addressing high impact weather events. This study seeks to understand how emergency managers use NOAA/NWS data, products, information, and decision support when addressing high impact weather events.



# Looking to the Future



#### Accelerated growth path

Assuming a significant increase in:

- Personnel
- Data collection (survey data, Twitter pipeline)
- Facilities

#### High growth path

Assuming continued current levels of investment in:

- Personnel
- Data collection
- Facilities

#### Inverse growth path

Assuming a reduction in:

- Personnel
- · Data collection
- Facilities

As we look to the future, IPPRA continues to exceed a high growth path as outlined through our previous strategic planning processes. To remain on this trajectory, we will seek to increase our sponsored research success, expand our faculty affiliations and research staff to support these research endeavors, and seek additional funding streams to support maintenance and expansion of our highly successful research infrastructure programs.

IPPRA's established reputation as a premier research institute at the University of Oklahoma is a result of the dedication and expertise of its faculty, staff and students and is also made possible through sustained investments that ensure the longevity of our research infrastructure and allow us to continue to participate in large-scale, cross-disciplinary initiatives. We look forward to continuing these partnerships in FY23 and beyond!



## **Contact Us**



405-325-1720



ippra@ou.edu



www.ou.edu/ippra





