The Institute for Research on Innovation and Science (IRIS) is a national data resource dedicated to providing credible data and rigorous findings about the value of the research enterprise to inform effective policy-making, support outreach, aid in research management, and expand the state of knowledge. This university-led consortium is currently housed at the University of Michigan's Institute for Social Research.

From the Executive Director

Happy New Year! It has been a very productive quarter for IRIS. We hosted a successful Data Summit in Washington, DC. That meeting brought together more than 40 representatives from IRIS campuses. Vibrant discussions resulted in a variety of enhancements to our products and work processes. Most important has been the creation of a standing Technical Advisory Group led by Kevin Bjorne, IRIS Technical Director.



Jason Owen-Smith

We submitted another tranche of data

to Census in November. Data integration and validation is almost complete and we will be preparing and issuing new Federal Spending Reports and newly updated Hot Reports in the upcoming weeks. The Census-IRIS Hot Report is being re-conceptualized in response to your comments. The new Vendor and Employee reports will be more user-friendly, shareable, and interactive.

IRIS research continues to make a splash, with a panel at the American Economic Association organized by IRIS PI Julia Lane.

New work examines the role of research trained human capital in the success of startups, underrepresentation and its effects on the careers of graduate students and other topics. We are nearing a planned release of the first de-identified IRIS research dataset. I am looking forward to seeing new research using IRIS data through the secure Virtual Data Enclave we manage and through the Census managed Federal Statistical Research Data System.

RIS News

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Operational developments are proceeding as well. We are honing our capabilities to support researchers, expanding reporting and interaction with IRIS member institutions, and deepening partnerships with AAU, APLU and others. Member support and development will be continuing priorities in the IRIS' third year. That effort will only be helped as we continue to develop IRIS governance. After a 15 month process of discussion and comment by with members, our bylaws have been approved. We are preparing for elections for the IRIS Board of Directors and intend to host the first board meeting this spring. With the help of the board we will also be convening a Scientific Advisory committee and a Policy and Outreach committee. We hope to engage representatives of IRIS members in both efforts. I look forward to continuing to work with and learn from you as IRIS keeps expanding.

Thanks, once again, for all you do with and for IRIS.

From the Technical Director

Following the September 2016 Data Summit, IRIS formed a new **Technical Advisory Group (TAG)** that is already playing a valuable role in helping us define, develop, and test new products, services, and features that will enhance the work of IRIS on behalf of our member universities.

The TAG group is currently comprised of individuals from:

- The University of Virginia
- Princeton University
- The University of Arizona
- The University of Wisconsin-Madison
- Pennsylvania State University
- Rutgers University
- The University of Michigan



Kevin Bjorne

The TAG group meets monthly via phone conference and more often by email. It has already played an important role in helping us solve a layout problem with our new interactive spending report (currently in beta testing), advised us on new features that allow easier report sharing without the need to log into the IRIS portal, and helped us develop a communication plan that can be employed by universities to spread the word about how IRIS can positively impact their campuses. Being a member of the TAG gives a strong voice to universities that want to work with IRIS in a more hands on approach that ultimately benefits everyone. If you are interested in being part of TAG, please contact Kevin Bjorne at kbjorne@umich.edu.

Some features, like the report sharing feature, are being beta tested by TAG members right now and will soon be deployed for all universities to use. I feel very fortunate to have a team like this advising and providing direction that will benefit all the IRIS members.

2016 Data Summit

The 2016 IRIS Data Summit took place on September 21, 2016 in Washington, DC. Representatives from IRIS, the U.S. Census



Jason Owen-Smith at Data Summit

Kevin Bjorne and IRIS member representatives. The first session focused on new data fields and was led by Todd Woodman of the University of Arizona. Dan Reed of the University of Iowa led a session on new data products, followed by a session on data quality, led by Kim Griffin at Northwestern University. Bureau, and 19 IRIS member universities participated in the halfday event. The goals of the meeting were to (1) gather feedback from IRIS members on data elements that add value while contributing little burden; (2) generate products that are of high value; and (3) maintain the highest possible data quality.

The meeting consisted of three sessions co-led by IRIS Technical Director

Discussion was rich and the IRIS team left with many ideas for enhancements.

One important outcome of the IRIS Data Summit was the establishment of an IRIS Technical Advisory Group (TAG), comprised of a small number of data representatives drawn from IRIS membership. This group has commenced a series of monthly calls to work on various projects to enhance IRIS data handling and improvement processes.



Todd Woodman, Univ of Arizona

Mark your calendars! The **2017 IRIS Data Summit** is tentatively scheduled for **Thursday, September 21**, and will be held at the Institute for Social Research in Ann Arbor, MI. We anticipate this will be an expanded full-day meeting. More details will be available in the coming months.



IRIS Governance

We are very pleased to announce that our bylaws have been approved and IRIS will soon have a new governing board that will reflect its national and growing membership. Discussions about governance began at the initial IRIS Leadership Summit. This meeting, held at AAAS Headquarters on October 21, 2015, brought together executive level representatives from 21 universities, with IRIS funders (Sloan and Kauffman Foundation), representatives of associations (AAU, APLU, AAMC, AAAS, CIC) and IRIS Pls. One session of that meeting was devoted to discussion of governance.

As a result of that discussion, we convened a subcommittee of university representatives to develop a draft charter for IRIS. That committee included Kimberly Espy (Arizona), Danny Goroff (Sloan Foundation), Paul Horn (NYU), E.J. Reedy (Kauffman Foundation), and Steve Wyatt (Missouri). The resulting charter was vetted by the University of Michigan OGC and submitted to the IRIS members for open comment.

With those comments in hand, we revised the charter and the

bylaws, which create IRIS as a hosted entity at the University of Michigan. The bylaws were reviewed and approved by the Michigan OGC, and were submitted to the IRIS steering committee, membership and other constituents for comment. We received comments from representatives of 14 institutions as well as from other stakeholders. As a result of that comment process, a final round of revisions were made. See <u>http://iris.isr.umich.edu/wpcontent/uploads/2015/09/IRIS-Charter-and-Bylaws.pdf</u>.

We are now seeking nominations to fill the first six seats of the Board of Directors; those **nominations are due February 24** and **elections will conclude on March 8**. For more information about the election process, contact IRIS Managing Director Nancy Calvin-Naylor at <u>nbirk@umich.edu</u>. We appreciate your helpful ideas and suggestions as we moved toward finalizing the IRIS governance structure. This initiative's strength depends on engagement by members and partners. Your involvement is key to the success of IRIS, so we encourage you to participate as much as you are able.

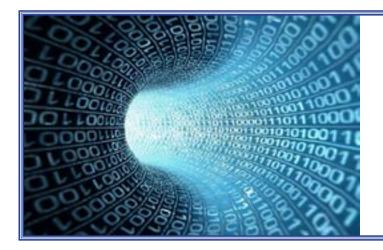
IRIS Data Release Coming Soon!

IRIS is about to embark on its first official release of data and documentation that will be made available for research use through its secure Virtual Data Enclave (VDE) and through the Federal Statistical Research Data Center (RDC) facilities. The release is scheduled to occur in February 2017 in the IRIS VDE and in April in the Census RDC. The RDC data will be accessible by researchers with special sworn status and approved Census projects.

This release includes de-identified IRIS UMETRICS data and public elements of external datasets (e.g., grants, publications, patents), crosswalk tables to match particular data elements (e.g., awards, awardees, research employees) across UMETRICS and external datasets, linked records, rich documentation, and associated code.

A primary goal of the IRIS data release is to enable the research community to access and use this dataset, subject to privacy and confidentiality restrictions. We greatly welcome researchers from all disciplines to apply for restricted data access and use of IRIS data while we maintain the confidentiality and privacy protections we promised to our member universities. For this initial data release, our focus on record linkage is particularly important, since it enables researchers to more accurately relate research outputs to research inputs around common identifiers when addressing research questions about the impact of science and innovation.

For more information about this user-friendly access to welldocumented data through the IRIS secure data enclave, please visit our website <u>iris.isr.umich.edu</u>.



IRIS February 1 Data Submission

IRIS will be submitting another tranche of data to Census very soon. To allow time for processing and cleaning, please **submit data in the IRIS portal by February 1**. Contact Kevin Bjorne at kbjorne@umich.edu if you have questions.

New Uses for IRIS Data — Two Pilot Projects

IRIS has embarked on two pilot projects recently as feasibility studies. First, we have begun to work with the Michigan Institute for Clinical Health Research (MICHR), a unit that manages the University of Michigan's Clinical and Translational Science Award (CTSA). A core mission of the CTSA is workforce development, and institutions with these awards must track the career outcomes of their education program participants. To that end, we are helping MICHR track two groups, faculty with a KL2 Career Development Award and master's students with a TL1 Clinical Research Training Award. We're looking at aggregate outcomes of those individuals, focusing on five broad outcomes: whether program participants continue to work in research, their patent history, salary trends, geographic region of employment, and subsequent NIH awards, including time to first R01. Using comparison groups, we will provide evidence of aggregate outcomes using UMETRICS and Census-linked data to the extent that disclosure rules permit. We aim to demonstrate the feasibility of tracking these CTSA scholars and trainees at one institution, adding additional CTSA institutions in subsequent analyses.

Second, we are working with the Rackham School of Graduate Studies at the University of Michigan in a pilot project to track career outcomes of its postdoctoral fellows. A notoriously challenging group to follow, the use of Census-linked data could allow us to identify those who have completed their postdocs and have gone to other employment in the U.S. Reports will be shared with participants at the National Postdoctoral Association annual meeting in March 2017.

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AEA Presentations by IRIS Co-PIs and Census Colleagues

More researchers are becoming engaged in working with UMETRICS data. IRIS, the Kauffman Foundation and the Census Bureau sponsored teams of researchers from three universities to both help develop documentation for dissemination to the Federal Statistical Research Data Network and do original research. As part of that activity, Co-PI Julia Lane organized a session at the January 2017 American Economics Association Meeting in Chicago titled "Using data science to examine the link between university R&D and innovation." Papers presented at the session include:

- a. Jarmin R, Zolas N, Goldschlag N, Lane JI. "The link between R&D and entrepreneurship." This paper examines the relationship between the funding of research teams (e.g., structure, field, and type) and the subsequent propensity of members of those teams to start a business, and examines the subsequent survival and productivity of those businesses.
- b. Barth E, Davis J, Marschke G, Wang A, Zhou S. "Pathways to production." This paper maps employment linkages between universities and industry, estimating the impacts of universitybased research on labor market outcomes, and analyzes hiring patterns of firms that employ workers with university research experience.
- c. Dacunto F, Yang L. "Financial advice and the entrepreneurial spillovers of basic research." This paper highlights that informal

Hot Report Redesign

We have received considerable feedback from IRIS member universities about the reports and products we develop. In response to those comments, we are working to add new features that will enhance the reports' value to IRIS members. The reports have not been as easy to print, reproduce and share for use by universities as we would like. We are working to increase their fexibility in use. In addition, users have told us that they must drill down into the charts and graphs to get information, and they would prefer a simpler and friendlier way to access the data. Finally, these reports are rather dense and contain a lot of information; we've heard that we need to simplify the reports and focus on key metrics. financial advice is an important determinant of the creation of entrepreneurial ventures that commercialize basic research findings.

d. Buffington C, Harris B, Feng F, Weinberg B. "Research funding and subsequent entrepreneurship: The role of underrepresentation." This paper examines the effect of both the type and structure of federal funding on the outcomes of underrepresented students.



We've broken the Hot Report up into two reports, an Employee Profile and Vendor Profile. These are one-page reports that can be easily printed. The images can be copied individually and dropped into slides or other documents to make their use considerably more versatile. The underlying data and documentation will remain available to users throught the IRIS member portal. The reports are interactive when viewed electronically, much like our Federal Spending Report. We have been developing the wire frames and are currently beta testing the new versions. If you would like to participate in the testing process, please reach out to Kevin Bjorne at kbjorne@umich.edu. We welcome your comments and ideas.

New IRIS Staff

Amy Butchart joined IRIS in December of 2016 from within the University of Michigan's Institute for Social Research, where she headed up the team that collects, codes, and manages pension data for the Health and Retirement Study. She earned a master's in public health from the



Amy Butchart

University of Michigan, and has also worked in data and research at the University of Michigan's Medical School and at the Veterans' Administration Center for Clinical Management Research. Amy will be working with matching the IRIS data to Census restricted data sets. Fun fact: Amy is actually a former Census employee, having worked as a temp on the 2000 decennial census.

Institute for Research on Innovation & Science University of Michigan Institute for Social Research Survey Research Center 426 Thompson St, 3317 ISR, Ann Arbor, MI, 48106-1248 (734) 615-0015 • IRIS-contact@umich.edu • iris.isr.umich.edu • @IRIS_UMETRICS INSTITUTE FOR RESEARCH ON INNOVATION & SCIENCE