2021 Report to Stakeholders

November 2021

"The Institute exemplifies the best of William & Mary. Creativity, entrepreneurship, and intellectual risk-taking are rewarded. By investing in the power of student-faculty teams, the Institute is helping position W&M as a leader for world-class, applied research."

Robert M. Gates '65, LHD'98

WILLIAM & MARY GLOBAL RESEARCH INSTITUTE



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EXECUTIVE SUMMARY

FY21 (June 2020 to July 2021)

Mission

The Global Research Institute (GRI) empowers teams of students and faculty to make a difference in the world. We are a multidisciplinary hub that applies research to real-world problems, investing in outstanding scholars to catalyze new insights and train the next generation of global leaders.

Purpose

At the Institute, we recognize that real-world problems don't respect disciplinary boundaries, and neither do we. GRI exists to incubate, support, and scale research that makes a difference in the world.

Our Approach

GRI provides resources and opportunities to help teams solve environmental, social, health, economic, security, and political challenges. We match students with seasoned faculty and staff to develop ideas, convene partners, create and analyze data, use cutting-edge methods, and, when appropriate, suggest policy solutions. GRI combines the best of the liberal arts with rigorous evidence-based approaches - if there are complex challenges that require new data or analytical methods, this is the place to be.

We conceptualize our strategic approach in the context of a 6-spoke flywheel, with each effort along an individual spoke creating additional momentum towards our mission. The long version of our <u>Strategic Approach Document is here</u>, but the model is summarized below:



Our FY21 Focus

Throughout GRI's history, this approach has created knowledge to address real-world problems, while also training the next generation of globally-minded scholars and leaders. In FY21, we accelerated those efforts. Instead of retrenching during the first year of the COVID-19 pandemic, we made targeted investments that led to more and better applied research.

Principal among these investments focused on our most significant capacity constraint - human capital. In FY21 we focused on two efforts to address this problem:

- 1. *Postdoctoral program for academic diversity.* After several years of preparatory efforts, in FY21 we initiated this program to support postdoctoral fellows to train a diverse group of student researchers, while also supporting the most promising research streams of GRI research labs.
- 2. *Research affiliates.* Over the past year, we made a significant push to include more research affiliates from across the university. We also provided new cross-university programming and funding to support this expanded research network and incentivized more W&M faculty to engage student teams in applied research.

Our Impact

For most of the metrics that GRI tracked in FY21, we met or surpassed the specific goals set at the start of the fiscal year. Those 40 metrics can be found in the appendix to this document. To highlight GRI's impact in FY21, we had:

- 10 research labs and 41 unique faculty/student research teams
- 27 Affiliated Researchers, Scholars, and Fellows
- 48 Professional Research Staff
- 75 Faculty members engaged in GRI programs across campus
- 251 Student Research Assistants
- Active partnerships with 33 organizations (incl. Gates Foundation, Carnegie Corporation of NY, State Department, Innovations for Poverty Action, Pew Research Center, World Bank, Microsoft AI for Good, Chicago Council on Global Affairs...)
- 63 peer-reviewed publications (incl. 20 co-authored with W&M students)
- 133 briefings with policymakers & 447 media hits (*incl. the Economist, BBC, Foreign Policy, NPR, Washington Post, Wall Street Journal, and USA Today*)
- 1,060 student engagements (*lectures/events/networking/workshops*)
- 1,988 research citations by other scholars
- Active management of \$15 million in research funding,¹ with \$1.2 million flowing back to W&M through indirect cost recovery (29% of campus total in FY21)

These programs and activities led to impact beyond campus. One team of researchers briefed more than 30 government agencies, think tanks, NGOs, and private companies on China's lending practices, including a senior UK official in Beijing who wrote "Your paper seems to be making quite an impact, and deservedly so. It is pathbreaking in the true sense." Another team's

¹ GRI is currently managing \$13 million in active grants and contracts, but when all other sources are included (private gifts, university investments, GRI IDC expenditures), then the amount is \$15 million.

work on digital inclusion informed the Tanzanian government as it digitized its social safety net. Researchers from a third GRI lab briefed Senate staffers and government officials in Maryland on policy options for pursuing transitional and racial justice at the national and state levels. Whether leveraging machine learning to better predict armed conflict, or studying the effectiveness of COVID-19 lockdown policies around the world, in FY21 GRI researchers created new knowledge in their various academic fields, but also shared these insights with partner organizations that could use this knowledge to take actions and make better decisions. GRI supports research of consequence that makes a difference in the world.

Sustainability

In FY21 GRI is actively managing more than \$15 million in research funding. Research infrastructure and staff support is necessary to enable such activity, and GRI is currently running a deficit of \$230,000 per year to provide this support. GRI has sufficient reserves to cover the next 3 years of support (through FY25), at which point the Institute will cease operations in its current form.

FY22 Needs

- 1. *External Partnerships:* We do better work when we do it with strong partners. We are actively looking for leaders in the corporate, policy, and non-profit space who can advise our researchers and partner with them to pursue applied research.
- Flexible Funding: The vast majority of GRI's actively managed research funds are tied to specific grants and discrete deliverables. To continue innovating, flexible funding is essential to invest in next generation approaches that could become the next big idea. Flexible funding is also essential to fill the current operating deficit that would pay for basic research infrastructure (fiscal, admin, communications, rent, and other fixed costs), which makes scalable research at W&M viable.
- 3. *Space:* We have survived the pandemic, but our extended time in Zoom-world has underlined the importance of in-person collaboration and "positive collisions" around the water cooler or on the front porch, which are often the spark for research collaborations across disciplines. GRI no longer has sufficient space to support new projects or planned hires, and the physical space that it currently does inhabit is deteriorating.



Director's Note

Dear Friends,

Welcome to our first annual stakeholder report. GRI was founded in 2008 with support from William & Mary's Dean of Arts & Sciences, VP for International Affairs, and the VP for Research. It was designed to help a small number of faculty-student teams manage externally-funded research projects. GRI now supports 10 research labs and reports to the Office of the Provost. Last year we made a commitment to improving the way we assess and report on our work. We think it is important that university leadership, financial supporters, research partners, and our faculty/staff can observe the outputs of our work and compare those to our goals. We also want to focus on the impact of our work. In this report, you will find both quantitative metrics, as well as qualitative descriptions of impact from our faculty, staff, and students.

Last year (FY21) was a challenging one for all of us. But it also reinforced who we are at GRI. Our long-term perspective helped us navigate the pandemic -- not by retrenching, but instead by making targeted investments that we believe will lead to more and better applied research that has an impact in the world.

Rather than pulling back in FY21, we invested. While we are now much larger than in 2008, GRI's purpose remains the same today as at its founding: incubate, support, and scale research by student and faculty teams to make a difference in the world. These research efforts can take years to pay off, but when they do, insights from GRI labs and researchers can play a role in shaping the decisions of governments, NGOs, and private companies.

Importantly, these research efforts include hundreds of students from a variety of backgrounds and disciplines that receive training and mentorship to develop as future leaders in their fields. As Nitya Labh '22 explains, "GRI has always embraced my intellectual curiosity and celebrated academic ambition...The Institute is like an incubator for creative thinkers and future analysts, and that's what makes it so powerful."

As we advance these dual goals of creating insights and developing leaders, we help to implement W&M's vision: "People come to William & Mary wanting to understand and change the world – and together we do."

During FY21, we made particular progress in the following 3 areas:

 Advancing our strategic approach. With a new leadership team in place and a new reporting line to the Provost's Office, we codified some of the key lessons we have learned in the past 10 years. We are now more deliberate and focused in our investment strategy. We do not spend money or time on new initiatives or reinvest in existing ones unless we can see how they accelerate our flywheel. In this report, we provide more information on the GRI flywheel and its 6 spokes that guide our investments.

- 2. Expanding our diversity initiatives. Diversity is one of GRI's 5 longstanding values. We know we are better equipped to solve challenges with a team that has a variety of lived experiences, backgrounds, and training. In 2018 GRI developed a pilot program to help recruit talented researchers from underrepresented groups to GRI. This past year we identified out-year funding for the program and sharpened the focus to make the program more sustainable. We've also made other efforts in the DEI space, and the immediate results reported below are striking. Importantly, these types of initiatives are designed to institutionalize such changes.
- 3. **Expanding the number and breadth of Research Affiliates.** The most significant constraint on providing more high-quality mentored research experiences for students is the lack of senior researchers willing and able to provide these experiences. This past year we made a significant push to include research affiliates from across the university, in addition to lab directors. We also created new cross-university programming and start-up funds to support this expanded research network.

We have set the following 3 priorities as we head into FY22:

- 1. Plan and execute events that drive research: GRI will bring W&M to the world and the world to W&M. This initiative is designed to attract external resources in order to leverage applied research that could inform policy decisions and practices. The first of our high-level convenings will occur in the spring of 2022 (with a focus on China) with two additional events (so-called "Gates Forums" named in honor of Chancellor Robert Gates) in the fall of '22 and spring of '23. We will implement high-quality events that provide our students and faculty with access to leading researchers, policy practitioners, and potential partners. If well-executed, these events will raise the profile of W&M and GRI and make Williamsburg a destination for high-quality meetings where people convene to explore evidence-based solutions to real-world problems.
- 2. **Catalyze and scale research teams:** We will realize the goal of producing more high-impact research by supporting more great researchers and providing better support to our existing research teams. One part of this effort will be increasing the number and diversity of faculty affiliates who are conducting applied research. Another means to the same end will focus on scaling GRI postdoctoral programs. Postdocs support our 10 existing research labs, but also directly produce applied research and provide students with an increased range of mentored research experiences. Finally, we will invest to help move one or more current GRI research labs from the "start-up" phase to a more mature phase where funding is more sustainable and research outputs are more robust.
- 3. **Space for the future.** Over the past year, we have learned that we can flex to deliver our research even when we cannot be together in person. However, this remote year also highlighted the costs of remote work, especially if that work relies on new collaborations between researchers who don't already know each other. Studies on innovation provide systematic evidence for something we already know bringing people from different backgrounds together in both formal and informal settings is crucial to creating intellectual "collisions" that are the lifeblood of creative multi-disciplinary work. Right now, GRI lacks

adequate space to support such collaborations. There are no empty seats for additional researchers, the physical building is decaying (there are windows falling out of offices, and buckets on tables to catch water leaks), and we are now denying requests by faculty to collaborate with their research teams at 427 Scotland Street because of space constraints. It is a problem when we win new grants to tackle exciting challenges, but we then have no place for our researchers to sit and engage with each other.

As always, thanks to you, our stakeholders and partners. Our ability to support student-faculty research at a world-class level depends upon your support. Together we can make William & Mary a leader in applied research that makes a difference in the world.

Sincerely,

Mike Tierney Director Global Research Institute William & Mary



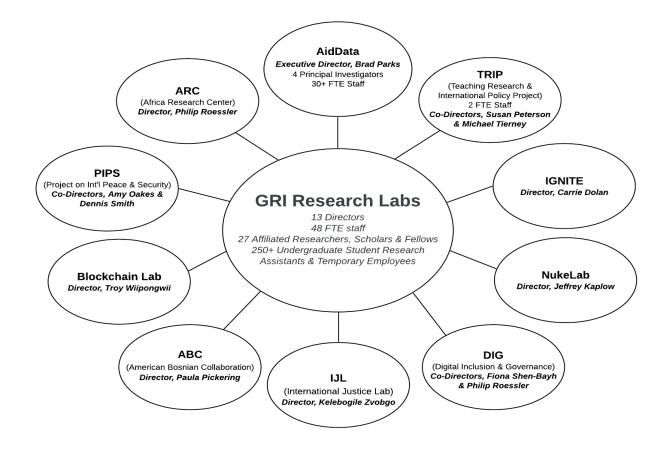
Our Approach

Real-world problems don't respect disciplinary boundaries, and neither do we. William & Mary's Global Research Institute builds research teams that create new knowledge and make a difference in the world. The work at GRI catalyzes millions of dollars every year, supporting top talent, training hundreds of students, and generating resources that are invested to create new insights to solve problems.

The seeds for GRI were first planted in 2003 when two William & Mary students challenged the status quo. One student wondered about the gulf between how his professors taught and how they studied international relations. Another was working on his honors thesis and discovered the data he needed didn't yet exist. They teamed up with professors and practitioners to solve these problems, and as they did, realized this collaborative approach to creating new data and methods needed a home. So they created the Institute, a multidisciplinary hub to apply research to real-world issues.

GRI currently supports 10 research labs and more than 25 affiliated faculty. Every research initiative matches students with seasoned faculty and staff to develop ideas, collaborate with partners, create and analyze data, and invent new methods to solve pressing challenges.

This approach helps researchers produce insights that matter beyond W&M. Critically, GRI is not a centrally run, top-down effort designed to implement the research agenda of a single leader. This "horizontal" approach - around teams and projects, as opposed to the "vertical" organization of a typical academic department - encourages collaborations across the university.



In our approach, there is no single defining action or "light bulb" moment. Rather, GRI creates space for diverse research teams to advance their own ideas and then supports the incubation of the most promising of these ideas. We know that one size does not fit all, and we work with our researchers to help them realize their goals and increase their impact.

The flywheel model (below) illustrates how we allocate resources to best contribute to solving problems in the world. In doing so, we focus on the factors that enable excellence.



This strategic focus has delivered strong results, and each step in the GRI approach builds momentum to elevate W&M researchers and their evidence-based insights. Particularly important has been the growth in collaborative partnerships. These partnerships have helped catalyze resources (with over \$72 million in external grants since 2008) as well as garner international media coverage (*Economist, Foreign Policy, BBC*). Researchers at the Institute have published in the leading outlets in their fields (*Nature, PNAS, World Politics, American Economic Review, International Organization*) and developed actionable insights with practitioners from over 50 unique partner institutions, including the U.S. Department of State, the World Bank, Gates Foundation, and the Carnegie Corporation of NY.

This track record is atypical for a university-based institute. Many top universities are excellent in "basic" research but do not always apply their data, findings, and ideas to contemporary problems. Peers of W&M have taken notice, and elements of the GRI approach have been consciously adopted at other leading universities, including Harvard, USC, and UPenn.

As GRI grows, we remain committed to our founding proposition that good ideas can come from anyone. GRI has continued to deliberately invest in scholars and students who take both work and community seriously. When we're not analyzing data on W&M's supercomputer, running field experiments with community partners, or implementing a large-scale survey, you'll find us enjoying BBQ and exchanging ideas on the front porch of our research home. A creative culture of innovation, fun, and willingness to think differently has been essential to our success. By helping to support, incubate, and scale the ideas of diverse research teams working on real-world problems, we bring W&M to the world and the world to W&M.



FY21 Impact Highlights

Throughout GRI history, our approach has remained the same - create knowledge to address real-world problems and catalyze these new insights while training the next generation of global scholars and leaders.

We are committed to maximizing the return on funding support and staff time to achieve these goals. We take stewardship seriously and we seek to measure our work through a framework informed by the <u>Stanford Social Innovation Review</u>, to include:

- Are we executing and adapting our plan?
- If so, are we implementing programs with quality?
- Are we having an impact?
- Are we building a sustainable organization?

To ensure we are addressing these questions, we track our progress via research in the world as well as specific metrics derived from our strategic approach and flywheel (metric details are available in the appendix of this report).

Executing and Adapting Our Plan

In FY21 we measured 40 indicators tied to the 6-spokes of our flywheel. In most categories we measured (34 of 40), we are meeting or surpassing the goals we set at the start of the fiscal year -- often by large margins. We found that, as we measured items during this baseline year, we were executing at a higher tempo than anticipated. This is good news, but we recognize that there is more work to be done across the spokes of the flywheel. Moving forward we expect to "rightsize" our goals to help us identify specific operational opportunities and constraints.

In the appendix, more specifics can be found on the 40 metrics and the various programs and initiatives implemented to make progress on them. We list all research funding partners, briefly describe all 10 labs supported by GRI, and introduce our data on performance metrics that we

GRI's Annual Operating Expenses (FY21)

Revenue for research infrastructure

University support	\$ 230,579	17.7%
Direct & Indirect cost recov	\$ 451,225	34.7%
Private gifts	\$ 388,915	29.9%
Annual deficit	\$ (229,281)	-17.6%

tracked in FY21. These paint a quantitative picture of the work done at the GRI level and at the individual lab level. As this is the first year we have tracked and evaluated our work, we welcome feedback on these efforts so that we can improve going forward.

Here, we highlight 3 initiatives that have helped us accelerate the GRI flywheel in FY21, and how we will adapt them to improve in FY22:

- Research In Progress: In FY21 we initiated a monthly Research In Progress seminar where faculty could engage each other on early-stage ideas. We found this effort to be widely successful at moving from rhetoric to action on cross-campus engagement, and it has catalyzed new research partnerships across different GRI labs, departments, and schools. In FY22 we will engage more external partners in these seminars, as well as create a hybrid (remote & in-person) option to ensure participation across campus and outside.
- **Connecting to External Partners:** We made significant progress in FY21 by connecting GRI researchers with potential external partners. However, we had mixed success in identifying the most promising avenues for connection, which meant too many meetings for busy lab directors. In FY22 we will invest more time and effort upfront to identify potential partnerships on campus and off that will help us match researchers with opportunities, and seek feedback from external partners on how they might better engage with researchers.
- Sharing Insights: Frankly, this category is a historic weakness for W&M. To borrow a phrase, we punch below our weight in terms of national and global media exposure. In FY21 we made progress here, largely due to a highly compelling research report from AidData. We also identified an external partner to help us raise the profile of additional research projects at GRI. In FY22, we will work with this external agency that specializes in amplifying the reach and impact of faculty research and insights through placements of commentary and expertise in influential news sources.

Implementing with Quality

FY21 was a highly productive year. To highlight a handful of the 40 indicators, we had:

• 10 research labs and 41 unique faculty/student research teams

- 27 Affiliated Researchers, Scholars, and Fellows
- 48 Professional Research Staff (W&M full-time employees)
- 75 Faculty Engaged Across Campus (Participants in GRI programming)
- 251 Student Research Assistants
- Active partnerships with 33 organizations (incl. Gates Foundation, Carnegie Corporation of NY, State Department, Innovations for Poverty Action, World Bank)
- 63 peer-reviewed publications & papers (incl. 20 co-authored with W&M students)
- 133 briefings with policymakers & 447 media hits (*incl. the Economist, BBC, Foreign Policy, NPR, Washington Post, Wall Street Journal, and USA Today*)
- 1,060 student engagements (lectures/events/networking/workshops)
- 1,988 research citations
- \$1.2 million directly back to W&M through cost recovery (29% of campus total)

Importantly, as we implemented these programs, 100% of students reported growth on one or more of the National Association of Colleges and Employers competencies, and the average student experience was highly favorable. 100% of research affiliates reported satisfaction with both research administration and programs & outreach support.

One area in which we made a collective push was to ensure our teams demonstrate a diversity of experience. In terms of majors, 43% of students are from disciplines outside government, economics, international relations, and public policy (exceeding our start of year target of 25%). In terms of racial and ethnic diversity, 43% of students are non-white (as a point of comparison, W&M's Class of 2024 is 36% non-white).

Impact Case Studies

There is a clear gap between the desires of policymakers for new knowledge and the provision of such knowledge by scholars. In a survey of U.S. national security, trade, and development officials, 84% believed that scholars should contribute to the policymaking process as creators of new information and 87% believed scholars should contribute to the policymaking process as informal advisors.² However, just 35% of scholars responded that their work was primarily or mostly designed with a specific policy solution in mind.³

Further, when policymakers are asked whether social science research "directly applies to specific components of my work," only 24% agreed. When these policymakers were asked, "For your colleagues in government service, how significant are the following potential obstacles to using academic knowledge in their work?" they consistently reported that they do not have enough time to follow academic work (89%), academic work is too abstract (86%), and scholarly research is not timely (80%).⁴ We believe there is likely a similar gap in the views of NGO staff, IGO staff, journalists, and individuals working in the private sector.

² <u>Does Social Science Inform Foreign Policy? Evidence from a Survey of US National Security. Trade. and</u> <u>Development Officials. International Studies Quarterly</u> (2021)

³ TRIP 2017 U.S. Faculty Survey Report

https://trip.wm.edu/data/our-surveys/faculty-survey/TRIP 2017 U S Faculty Survey Topline Results Final.pdf ⁴ TRIP 2017 U.S. Faculty Survey Report

https://trip.wm.edu/data/our-surveys/faculty-survey/TRIP 2017 U S Faculty Survey Topline Results Final.pdf

Amid a global pandemic and a crisis of democracy, the necessity for sustained dialogue and data driven solutions among academics, policymakers, the media, and the general public is an unmet need. Bridging this divide through applied research is one of the primary missions of GRI.

Below are 5 examples that highlight GRI impact in the world during FY21. These are not representative of our research efforts, but do illustrate the potential of our model. If you are interested in quantitative measures across all 10 labs, see the appendix.

1. AidData: China's Global Reach

In spring of 2021 AidData launched its <u>How China Lends report</u> and accompanying database. The study and the loan contract database received extensive media coverage from around the world. Users from 173 countries visited the website, and social media engagement soared; within two weeks of its release, the report received 150,000 impressions on Twitter. Shortly after the study was released, a senior official with the UK's Foreign, Commonwealth and Development Office, based in the Beijing Embassy, conveyed the following message: "Your paper seems to be making quite an impact, and deservedly so. It is pathbreaking in the true sense." In the 90-day period following the publication of *How China Lends*, AidData was asked to brief 26 think tanks and NGOs—based in Africa, Latin America, Eastern and Central Europe, Asia, Oceania, and the Middle East—on the findings and the methods employed to uncover the Chinese loan contracts.

Olaf Scholz, the German Minister of Finance and the German Government "Sherpa" to the G20, G7, and Paris Club told the authors he was "really impressed" with the report and shared it with his G7 deputies. Daleep Singh, the U.S. Deputy National Security Adviser at the White House wrote "Your report is an amazing contribution. It's extraordinarily relevant to what I am working on." He then gave public remarks as part of the rollout of the G7's Build Back Better World initiative, drawing special attention to AidData's *How China Lends* report. Larry Summers, the former US Treasury Secretary, spoke about the report on Bloomberg TV, describing it as "hugely important research" and that "I think we are going to be in a much more fruitful position to have an international dialogue on these matters because of the research that [the authors of the report] have done." The report later became the centerpiece of a U.S. House Financial Services Committee hearing in May 2021 on 'The Lending Practices of the People's Republic of China and Impact on the International Debt Architecture.'

2. AidData: Machine Learning and Methods to Predict Conflict and Development Outcomes

AidData partnered with the U.S. Agency for International Development to use machine learning methods that leverage features in daytime satellite imagery to predict armed conflict in Nigeria at the sub-national level. This approach can predict, with 80% accuracy,

the likelihood of a conflict event resulting in a fatality within a small geographic area over the next 6-12 months. AidData also demonstrated the value of these methods for generating measures for other development outcomes - such as poverty - in order to support the evaluation of outcomes when direct observational data is unavailable or too expensive. In partnership with the U.S. Millennium Challenge Corporation (MCC), AidData applied a similar machine learning-based approach to generate more accurate estimates of changes in average household wealth as part of an evaluation of road improvement projects in Tanzania and Ghana. These results will inform future funding and allocation decisions at MCC.

3. Digital Inclusion and Governance Lab: Improving Access to Mobile Technology

The DIGLAB is leading a number of projects with high-policy impact. One focuses on bridging the mobile gender gap in low-income countries—in which women are significantly less likely to own mobile phones relative to men. Drawing on the first-of-its-kind field experiment on mobile phone ownership, Professor Phil Roessler and collaborators from REPOA-Tanzania, University of Texas, and University of Michigan found that in Tanzania reducing this gender gap raised household economic well-being, on average, by 20%. But women's retention and control of mobile handsets proved critical. Key barriers to such control included low levels of literacy, microfinance debt, and scarcity of other handsets in the household. Roessler and his team briefed the Tanzanian government on their findings, which informed the government's digitization of its social safety net program (through the Tanzania Social Action Fund) that leverages mobile phones and mobile money to target women heads of households with a cash transfer to boost the well-being of the poorest households in Tanzania.

4. IGNITE Research Lab: COVID-19 Policy Abroad and at Home

In response to the global pandemic, IGNITE conducted research on the effectiveness of COVID-19 lockdown policies around the world. The work was published in *Health Policy and Planning* (a journal that focuses on issues of health and health policy in low- and middle-income countries) and extensively promoted by the journal because it contributed to the timely body of COVID-19 research that is informing contemporary policy decisions. While training her undergraduate students and contributing to the global debate, Professor Dolan also found the time to contribute to the conversation here at home. Dolan wrote op-ed articles in *The Virginian-Pilot* and *The Richmond Times Dispatch* about personal risk tolerance in the pandemic which have been accessed more than 20,000 times. In partnership with the CDC (and 21 student researchers!), she led an effort to collect and analyze data on masking on university campuses. This work informed W&M's policies and also contributed to a larger 60-university study. Professor Dolan also worked with local school district officials to create quarantine guidelines for school-age children that maximize safety while minimizing learning loss.

5. International Justice Lab: Bringing Global Insights Closer to Home

International Justice Lab Director Dr. Kelebogile Zvobgo and her co-author Dr. Meredith Loken published "<u>Why Race Matters in International Relations</u>" in *Foreign Policy* Magazine. The piece was later included in the magazine's list of "best long reads" and the authors were asked to brief staffers from the offices of U.S. Senators Blumenthal, Duckworth, and Gillibrand on the policy implications of their article. The piece has also made it into classrooms around the world, shifting the "mainstream international relations scholarship [that] denies race as essential to understanding the world." More than 90 universities in 20 countries are using the article as part of their coursework, helping to shape how universities teach and do research. In addition to shaping the behavior of her colleagues in higher education and the views of U.S. senators, Professor Zvobgo has advised key stakeholders in transitional justice projects in the United States, including the <u>Maryland Lynching Memorial Project</u>.

Building a Sustainable Organization

External partners have invested more than \$72 million in GRI since its founding in 2008, and in FY21 GRI is actively managing more than \$15 million in research funding (\$13 million in external grants and contracts and \$2 million in internal funds or investments from private donors). The majority of these external funds have been generated by the work of AidData, the largest and most mature research lab at GRI.

Research Labs

There is not a single universal end state for research labs at GRI. Some are currently "right-sized" at a small scale, particularly those focused on pedagogy or intensive research mentoring experiences. However, in order to increase the number of upstream research investments (and maintain certain types of support to the labs), GRI would ideally house 2 or 3 larger research labs and 2 or 3 medium-sized labs that can generate grant overhead and help to provide revenue and intellectual capital that would benefit all the labs at GRI and the broader research enterprise at W&M.⁵ At the moment, GRI is home to 1 large lab, the AidData Research Lab, and three revenue-positive but smaller labs (TRIP, NukeLab, and ARC).

⁵ By "large" research lab, we mean a lab that generates at least \$1,000,000 in active research awards. By medium, we define those that create \$250,000 or more in active research awards. In FY21, the current top 3 labs in terms of external revenue: 1) AidData: \$11,728,299; 2): TRIP: \$614,304; 3: ARC: \$236,962.

Current Project funds administered by the Global Research Institute

	# of Active				Non-grant	A	LL funding
Research Lab	Awards	Ac	Active awards		funding		sources
AidData	24	\$	11,728,299	\$	2,243,182	\$	13,971,482
TRIP (Teaching, Research & Int'l Policy)	2	\$	614,304	\$	91,336	\$	705,640
ARC (Africa Research Center)	3	\$	236,962	\$	8,259	\$	245,221
DIG (Digital Inclusion & Governance)	1	\$	44,100	\$	-	\$	44,100
IGNITE	1	\$	44,100	\$	56,231	\$	100,331
IJL (Int'l Justice Lab)		\$	-	\$	78,298	\$	78,298
NukeLab	2	\$	153,768	\$	30,659	\$	184,427
PIPS (Project on Int'l Peace & Security)		\$	-	\$	72,248	\$	72,248
ABC (American Bosnian Collaboration)		\$	-	\$	43,310	\$	43,310
Blockchain		\$	-	\$	92,933	\$	92,933
GRI Research Affiliates	2	\$	130,829	\$	52,241	\$	183,070
	35	\$	12,952,362	\$	2,768,697	\$	15,721,060

(Includes active grants & contracts awarded to GRI-supported Research Labs and Affiliates)

One of the Director's initiatives for the upcoming year is to make investments in labs that have demonstrated a track record and a desire to scale their research. We will prioritize resource investment in these labs.

Financial Support

GRI receives financial support in 3 primary funding streams. The first, and largest, is from external grants and contracts that support the majority of the work of GRI research teams. The second is from W&M, and the third is from private donors.

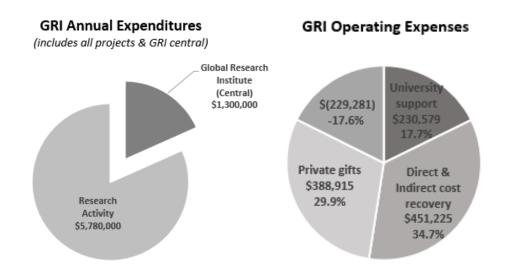
- 1) <u>Grants & Contracts</u>: Research teams brought in \$3.9 million in new external research funding in FY21 (see appendix A for research partners). Of these new funds, GRI research grants contributed \$1.2 million back to W&M via Indirect Cost Recovery (IDC) to W&M.
- 2) <u>W&M Direct Support</u>: In FY21, the university contributed \$702,688 in direct support for GRI's annual research activities. Of this amount \$350,579 is for GRI operating expenses and \$352,109 amount is for research labs at GRI.
- Private funds: External supporters (mostly W&M alums) contributed nearly \$389k to GRI in FY21. GRI experienced a 49% donor retention rate, compared to the national average non-profit retention rate of 25%.⁶

⁶ Blackbaud Charitable Giving Report, 2018.

Operating Expenses

GRI's Annual Operating Expenses (FY21)

Sevenue for research infrastructure University support \$ 230,579 17.7% Direct & Indirect cost recovery \$ 451,225 34.7% Private gifts \$ 388,915 29.9% Annual deficit \$ (229,281) -17.6%



Operating expenses support the infrastructure needed to facilitate applied research at scale.⁷ GRI works diligently to minimize transaction costs paid by researchers (e.g. operations, human resources, facilities, communications) so that the research teams can focus on what they do best.

All the personnel, policies, and processes that help researchers to do excellent work is "research infrastructure," and world class research is not cheap. Investments in core GRI staff and programs are necessary to support these research activities.

Annual operating expenses represent approximately 18% of GRI's total annual budget in FY21. The total amount for these operating expenses is \$1.3 million, GRI is currently running a deficit of \$230,000 per year to provide these operating expenses.

Of the operating expenses, 17.7% came from university direct support, 34.7% in cost recovery from research projects, and 29.9% from annual charitable gifts. The current deficit (17.6%) is

⁷ Support for GRI research infrastructure is necessary to maintain current operations. These funds cover operating costs to include building lease payments, staff salaries, research and programming expenses, and general facilities maintenance.

being funded by financial reserves from external donors (who are overwhelmingly a small number of W&M alumni).

GRI has sufficient financial reserves to cover the next 3 years of operational support (through FY25), at which point the Institute will cease operations at current levels unless it identifies some other source of revenue.



Learn More/Get Involved

Want to learn more or get involved? Please contact Mike Tierney, Institute Director, at <u>mitier@wm.edu</u> to arrange a meeting or visit.

Join us in our important mission. Together, let's advance world-class, applied research that makes a difference in the world.

APPENDIX

The Appendix below provides details on many features of our work that will be of interest to stakeholders. We list all research funding partners, briefly describe all 10 labs supported by GRI, and introduce our data on performance metrics that we tracked in FY21. These paint a quantitative picture of the work done at the GRI level and at the individual lab level. As this is the first year we have tracked and evaluated our work, we welcome feedback on these efforts so that we can improve going forward.

A. FY21 Funding Partners

- Bill and Melinda Gates Foundation
- Carnegie Corporation of New York
- Cloudera Foundation
- Commonwealth Center for Energy and Environment
- Department for International Development, U.K.
- DEval, German Institute for Development Evaluation
- Ford Foundation
- Institute for the Advancement of Food & Nutrition Sciences
- Innovations for Poverty Action
- International Monetary Fund
- Microsoft Philanthropies
- Millennium Challenge Corporation
- United Nations
- U.S. Agency for International Development
- U.S. Air Force Academy
- U.S. Department of State
- Princeton University
- Smith Richardson Foundation
- Stanton Foundation
- The William and Flora Hewlett Foundation
- University of Denver

B. Metrics

In FY21 we measured 40 metrics tied to the 6-spokes of our flywheel.



1. Invest in Culture & People to Explore Problems

Core to our DNA is the idea of building a creative community. Cultivating an entrepreneurial research culture requires a welcoming environment where individuals from different backgrounds and experiences can share their ideas and have them taken seriously.

FY21	Goal	Actual	Progress
Sponsor and execute "research in progress" seminars	6	9	150%
Create and convene a Director's Advisory Group	3	3	100%
Engage W&M students beyond those in GRI labs	750	1060	141%
Engage faculty across the university at GRI	50	75	150%
Average Net Promoter Score for student experience (above 0 is good, 20+ favorable, 50+ is excellent)	85	48	56%
% of Students report growth on one or more National Association of Colleges and Employers competencies	80	100	125%

Key Insights & Investments:

• In FY21 we initiated a monthly Research-In-Progress seminar where faculty could engage each other on early-stage ideas. We found this effort to be widely successful at moving from rhetoric to action on cross-campus engagement, and it has begun to result

in new research partnerships across different GRI labs, departments and schools. We will continue to invest and improve this model as we move forward.

- In FY21, we set a very ambitious Net Promoter Score goal of 85 for students who serve as research assistants. While it's possible that this is overly ambitious in any year, we expect that the opportunity to work and learn in person in FY22 will lead to improved scores in the future. During the pandemic, we pivoted to a variety of online events to engage students, including a panel with former Secretary of Defense Robert Gates. Despite offering a variety of online events-, we believe that online events and workshops and virtual work lack some of the higher touch experiences that can be transformational for students. This academic year, we look forward to reinstating smaller, in-person opportunities for students to help improve their research experiences and their professional development.
- We know that students are interested in additional opportunities to engage with alums. However, such programs can be time and labor-intensive. We will explore different modalities of mentorship and engagement options this upcoming year.

2. Create & Support Diverse Research Teams

Our flywheel is powered by teams of faculty and students. Since real-world problems rarely respect disciplinary boundaries, we believe that multidisciplinary teams will be more effective in addressing such problems. Exposing research designs, ideas, and data to scholars and students from multiple fields strengthens the work of any team, and we consciously build and support a collection of teams that include people from a wide range of national, disciplinary, methodological, ideological, gender, racial, and ethnic backgrounds.

FY21	Goal	Actual	Progress
Partner with new faculty through internal W&M recruitment	15	15	100%
Fund student innovation proposals	3	4	133%
Provide early-stage funding to research labs/initiatives	2	13	650%
% of PIs report satisfaction with research administration	90	100	111%
% of PIs report satisfaction with programs & outreach support	90	100	111%
Support faculty/student research teams	18	41	228%
Support collaboration between two or more GRI researchers in different labs	2	7	350%
# of partner and student organizations with whom we share student research opportunities at GRI	25	41	164%
% of students from disciplines outside government, economics, international relations, and public policy	25	43	170%

Key Insights & Investments:

- In FY21 we changed our model to better integrate additional research affiliates alongside established research labs. This approach lowers barriers to entry for research teams and supports a more flexible incubation and scaling model. As a result, we saw a significant increase in the number of student/faculty research teams, as well as increased collaborations between researchers who had not previously worked together or even known about each other's work. In FY22 we will work to strengthen our internal research funding/support infrastructure, including working with W&M's Entrepreneurship Center, to improve our internal investment in pilot and start-up initiatives.
- Our increased efforts to diversify the disciplines and backgrounds of researchers have helped to create more diverse teams that include students and faculty from the sciences, business, and humanities, in addition to the social sciences. This is consistent with the direction of university leadership and with our own theory of effective applied research. In terms of racial, ethnic, and gender diversity, our student researchers in FY21 were 22% Asian, 8% Black/African American, 7% Hispanic, 6% Multi-Racial, 5% Unknown, and 52% White. Our student researchers in FY21 were 72% Female and 28% Male.

3. Collaborate with Internal & External Partners

Our work is more likely to be funded, more "fit for purpose" to address real-world problems, and more likely to be disseminated widely when we work with others. The ivory tower permits creativity and freedom of thought, but it requires partnership with others to amplify impact.

FY21	Goal	Actual	Progress
Meetings of whole of university research group	4	2	50%
Connect researchers with potential partners	12	30	250%
Formal external partnerships (community partners, funders, data-sharing agreements, etc.)	30	33	110%

Key Insights & Investments:

- Last fall GRI led an ad hoc group of researchers from across campus that provided suggestions on how W&M could better support research infrastructure on campus to align with its mission and vision. This group wrote a memo to the Provost and the Vice Provost for Research outlining structural problems and suggesting the creation of a problem-solving group. While we fell short of the actual number of meetings of the whole university research group, the feedback from these meetings helped lead to the creation of a new university-wide working group with the mandate to help support world-class research. We look forward to working with this group in the upcoming year on critical questions of procurement, HR, grant management, seed funding, etc.
- One area where we made significant progress in FY21 was connecting GRI researchers with potential external partners. However, we had mixed success in identifying the most promising avenues for connection, which meant too many meetings for busy lab directors. This coming year we will invest more time and effort upfront to identify

potential partnerships on campus and off that will help us match researchers with opportunities.

4. Produce Applied Research

Great universities produce new knowledge. As part of a public research university, GRI supports its researchers as they create knowledge to help address real-world problems.

FY21	Goal	Actual	Progress
GRI places Summer Fellows to conduct applied research	5	10	200%
Researchers publish working papers, conference papers, peer-reviewed articles, etc.	60	63	105%
Researchers publish working papers, conference papers, peer-reviewed articles, etc. that are co-authored with students	20	20	100%
Researchers publish data sets	6	5	83%
Researchers run data collection operations (e.g., surveys, web-scraping, in-depth interviews)	10	23	230%

Key Insights & Investments:

- Despite disruptions due to the pandemic, our scholars met a majority of their research objectives. In FY22 we will continue to align programs and finances to lower research barriers, including a continued focus on improved grant administration/implementation with university partners. We will share information from campus partners that directly provide financial support to faculty members who collaborate with students. We also anticipate increasing alignment with the Summer Fellows program to support initiatives of GRI-affiliated researchers.
- While the sheer number of peer-reviewed publications coming from GRI labs is
 impressive, not all scholarly journals are seen as equally prestigious within the academy.
 FY 21 stood out as a year where GRI scholars published articles and books in the very
 best outlets in their fields. To name a few: Cambridge University Press, Nature,
 American Economic Review, Proceedings of the National Academy of Sciences,
 American Political Science Review, World Politics, World Development, and International
 Studies Quarterly.
 These are the top peer-reviewed outlets in the world and research
 from GRI labs appears in these outlets with increasing frequency.
- 5. Share Insights with Those who Make & Shape Policy

A key function of a research university is to share new knowledge - both with students in the classroom, with our partners, and with the broader world. To achieve impact, it is not enough to create new knowledge - that knowledge must be shared, understood, and utilized.

FY21	Goal	Actual	Progress
Grow number of people to whom we successfully send the newsletter (e.g., on our list and emailable)	15%	16%	107%
Grow Twitter followers	20%	39%	194%
Grow Facebook followers	5%	2%	47%
Grow LinkedIn followers	50%	204%	408%
Grow Instagram followers	50%	94%	188%
Write or place articles on W&M News, Advancement News, or in the Alumni Magazine	10	17	170%
Research citations	800	1988	249%
Media hits (to include features and data citations)	25	447	1788%
Briefings with practitioners and policymakers	50	133	266%

Key Insights & Investments:

- Frankly, this category is a historic weakness for W&M. To steal a phrase, we punch below our weight in terms of national and global media exposure. But with the significant effort from GRI staff, individual researchers, and a breakthrough dataset/report from AidData, FY21 was quite successful compared to previous years.
- In FY21, we focused efforts on determining a path forward for engaging audiences beyond W&M. To that end, we started working with the RW Jones Agency in June 2021. Working with about 50 colleges and universities, RW Jones specializes in amplifying the reach and impact of faculty research and insights through placements of commentary and expertise in influential news sources. We will continue to increase the impact of GRI scholars' work through media relations (e.g., expert pitches, op-ed commentary) conducted in partnership with the Agency. The results above do not reflect the new efforts of RW Jones and were instead generated by GRI staff and individual labs.
- We were successful in exceeding our growth targets on three of four social media
 platforms in FY21 and were particularly pleased with our growth on LinkedIn since that is
 where professional, academic, and partnership initiatives can be supported. In the
 coming fiscal year, we will continue to seek growth across our platforms to build
 partnerships and communicate with donors, practitioners, and alumni. We also seek to
 increase the quantity of external (non-W&M) subscribers to our newsletter and social
 media platforms.
- Our first-year metric for tracking the impact of GRI research (Google Scholar citations) is quite rough and fails to fully capture the concept we would like to measure. In FY21 we measured the number of citations in the calendar year 2020 for GRI lab directors and PIs. The obvious problems include: Difference between fiscal and calendar years; Citations measure the scholarly impact of individual scholars whether the research is connected to the lab or not; Citation tails are long and cumulate with time; Not all lab directors maintain a GS profile. In FY22 we will explore additional measures of impact and work to better connect the metrics to the work of each lab.

6. Catalyze Resources

We catalyze resources to create new knowledge, reach more students, and increase our impact in the world. Our funding portfolio helps to sustain and scale the work of this talented group, and our approach is supported by funds from the university, private donors, and external grants/contracts.

FY21	Goal	Actual	Progress
Grant and contract proposals	15	34	227%
Value of New grants and contracts	\$4,000,000	\$3,931,358	98%
Indirect Cost Recovery Returned to GRI ⁸	\$200,000	\$245,160	123%
Number of Individual Donors	400	349	87%
Private gift amounts	\$300,000	\$388,915	130%
% Donor retention	50	46	92%
Months of financial runway (at current revenue / expenditure rates)	24	44	183%
Active funding partnerships with external agencies, bureaus, foundations, etc.	20	21	105%

Key Insights & Investments:

- Due to COVID-19 cost containment policies, we reduced our expected expenditures in FY21. This reduction, in combination with an increase in generous *pledged* private support, has extended our financial runway. This runway is also predicated on continued university support, as the GRI MOU with W&M expires at the end of FY22 - without the renewal of the W&M MOU, GRI will be unable to continue to operate at its current level of impact.
- While the cost reductions and reduced activities forced by COVID have helped to lengthen our financial runway, we are concerned that this reduced activity in FY 21 will put downward pressure on research outputs and some of our other metrics in future years. We have learned that investing now pays off in future years.
- We are encouraged by the generosity of our philanthropic supporters (overwhelmingly W&M alumni), in terms of the overall level of contributions during a pandemic year. However, we did not grow the total number of gifts at the rate we planned for, or that we observed in previous years. For this reason we need to re-think whether we have the appropriate staffing structure to grow the base of our giving pyramid.
- Private giving is a critical and flexible pillar in our funding model. In FY22 we will explore
 the possibility of a GRI-specific advisory group to complement the good work of the
 Reves Board, which currently provides philanthropic support and a forum for sharing
 ideas and networks.

⁸ IDC Generated for W&M: \$1,167,429

- In FY22, we will work with our expanded group of faculty/practitioner affiliates and our current lab directors to apply for a greater number of research grants, which will be essential to scaling research impact and ensuring sustainability. In addition, we will work with university leadership to develop cross-university collaborations that target larger-scale grant funds.
- While most grant proposals will continue to come from our research labs, in FY22 GRI will apply for grants from foundations and corporations to support the core programs of the Institute.
- In FY22 we will continue to work with our colleagues in University Advancement on "big ideas" that could provide endowed support for applied research at W&M.

C. FY21 Research Labs

AMERICAN BOSNIAN COLLABORATION

The American Bosnian Collaboration (ABC) project brings together W&M and Bosnian students to foster cross-cultural understanding and work towards positive change for the youth of Bosnia. Students work in cross-cultural teams with faculty mentors at W&M and the University of Sarajevo to test different educational approaches to teaching English and media skills in ways that build skills for bridging cultural differences in the region. The impact of ABC's research is multiplied by Bosnian student teachers who bring lessons from our research into formal classrooms, where they educate the next generation of youth. ABC's current funding comes from GRI and other units on campus, with support from a small number of external donations and dedicated alumni.

AIDDATA

<u>AidData</u> is the Institute's largest and best-known project. It tracks underreported financial flows (including Chinese activity), conducts surveys of development policy leaders, and combines satellite imagery with other large datasets to evaluate project effectiveness. AidData is unique among the Institute projects as it maintains its own partnerships and communications team that pursue grants, develops media contacts, and produces sophisticated communications outputs. In addition to a prolific social media presence and regular peer-reviewed journal articles, AidData routinely has its work cited in elite media outlets. AidData's funding comes primarily through external grants and contracts, but it also receives support from W&M for three senior research positions.

AFRICA RESEARCH CENTER

The <u>Africa Research Center</u> is a research center that addresses some of the biggest development challenges facing countries in sub-Saharan Africa. Research streams focus on the impact of the mobile phone revolution; the origins and consequences of spatial inequality; the causes of armed conflict; the links between gender, health, and development; and the educational benefits of sport-for-development programs. It has good local partnerships and a solid track record of securing grant funding from leading organizations. In addition to conducting applied research, ARC serves a convening function for W&M students, faculty, and alumni who live, work, or study in Africa. ARC's funding primarily comes from external grants, as well as from a small number of private donations.

BLOCKCHAIN LAB

The <u>Blockchain Lab</u> is a collaboration between W&M's Alan B. Miller Entrepreneurship Center and W&M's Global Research Institute. The Lab's goals are to: establish a W&M blockchain community, prototype technology and data solutions in the blockchain space, provide leadership on blockchain challenges identified through partner networks, convene experts to meet, and explore solutions, and grow a diverse talent pipeline by designing a set of new courses, integrating blockchain content into the existing curriculum, and providing hands-on research and consulting experience through capstones and clinics. It has received small grants from the private sector and has several grant proposals pending.

DIGITAL INCLUSION AND GOVERNANCE LAB

The <u>Digital Inclusion & Governance Lab</u> is a research lab at William & Mary's Global Research Institute. DIG Lab undertakes rigorous, policy-relevant research on the impact of digital technologies on society, politics, and the economy. DIG Lab researchers employ a range of methodological tools, from randomized-controlled trials to textual analysis, combined with novel data collection, to better understand how to increase digital inclusion and leverage digital tools to maximize societal benefits. Its primary research areas are: bridging the digital divide; digitization, text-as-data, and governance; and interoperable payments and financial inclusion. DIG Lab is supported by research grants from the NSF, Gates Foundation, and IPA and is in early conversations with private companies in the global telecoms industry.

IGNITE

Ignite, based at the Global Research Institute and in collaboration with the Department of Health Sciences, is a multidisciplinary research lab that examines the allocation of global public health resources within the context of effectiveness, efficiency, and equity. Ignite's analytic work aims to address three important gaps in global health resource allocation: the need to focus prevention efforts where they will have the greatest impact on population-level outcomes; the need to engage more explicitly with the resource allocation decision-making process at the community level; and the effective integration of research into actionable evidence-based global public health interventions. Ignite is currently funded by GRI and other department units, and is actively seeking external grant support from foundation and government funding agencies.

INTERNATIONAL JUSTICE LAB

The <u>International Justice Lab</u> brings together faculty and students from across the United States to conduct collaborative research on human rights, transitional justice, and international law and courts. IJL aims to produce high-quality social science research that is relevant to policymakers, practitioners, and civil society advocates. The lab has successfully translated its peer-reviewed research into essays that contribute to contemporary public policy questions in the United States and around the world. IJL is currently being supported by internal GRI funds.

NUKELAB

The <u>NukeLab</u> explores questions in nuclear security, proliferation, and deterrence. Ongoing research projects at NukeLab include: assessing proliferation risk, mapping the nuclear nonproliferation regime, and analyzing the past and future of nuclear proliferation. GRI has helped NukeLab to support a speaker series linked to a COLL course that brings scholars and practitioners to campus and has sponsored a book workshop on nuclear proliferation. NukeLab's funding relies on external grants from private foundations.

PROJECT ON INTERNATIONAL PEACE & SECURITY

The <u>Project on International Peace and Security</u> is an undergraduate think tank. Each year seven research fellows produce policy white papers offering novel solutions to under-discussed security issues. Fellows work with practitioners in the military and intelligence communities and are supported by a student research intern. Students present their work to a variety of practitioner audiences including representatives from the military, the intelligence community, and Congress. The students do not produce datasets with ongoing data, but their individual projects could be of interest to government agencies or corporate sponsors. PIPS receives financial support from private gifts from its intensely loyal alums.

TEACHING, RESEARCH, AND INTERNATIONAL POLICY PROJECT

<u>Teaching, Research, and International Policy</u> (TRIP) Project describes and explains the discipline of international relations and how research and teaching shape and are shaped by politics and policy. TRIP employs surveys of scholars, policymakers, journalists, think tank staff, and members of the public to understand the sentiments and behavior of these different groups. Its expansive survey sample frame and strong reputation allow it to produce snapshots of expert opinion on a variety of contemporary foreign policy issues. Its Journal Article Database codifies the written discipline of the field. TRIP has a track record of external grants and contracts from private foundations as well as some initial forays into IP monetization, selling space on its flagship survey, and the sale/licensing of its data.