



Key findings to support research leaders

FUTURE PROOF YOUR INSTITUTION GROWTH IN 4 STRATEGIC STEPS

ADVANCING
DISCOVERY

Universities and institutions that rely on an active research presence are at the front line of organizations financially affected by COVID-19. Between general economic woes and the specific redirection of research budgets to fight the pandemic.

How can leaders of research institutions — university presidents, chancellors, provosts, VPs of research, deans of graduate and postdoc offices, and department heads — offset the impact of possible funding and income changes and preserve a position of trusted leader within their field?



Optimizing the presentation of its research can help institutions showcase its achievements to the scientific community — and to the organizations that fund science. Despite potential challenges to conventional funding, this revenue shift represents an opportunity for leaders at institutions to gain footing and seize opportunities. Research leaders must still get the most from their researchers; and actively showcase their institution's work, reputation and achievements to diverse audiences eager to hear it.

At the end of 2020 [Springer Nature commissioned independent experts to produce three reports](#) investigating COVID-19's impact on the economic climate for institutions and the solutions institutions may pursue to continue their work.



[The U.S. Academic Research Enterprise \(US-ARE\): Possible Paths from the Pandemic](#) by **Jason Owen-Smith**



[Emerging from uncertainty: International perspectives on the impact of COVID-19 on university research](#) by **Mattia Fosci, Lucia Loffreda, Andrea Chiarelli, Dan King, Rob Johnson, Ian Carter, and Mark Hochman**



[Emerging from uncertainty: How universities can underpin a research-led recovery from COVID-19](#) by **Mattia Fosci, Lucia Loffreda, Andrea Chiarelli, Dan King, Ian Carter, Mark Hochman, and Rob Johnson**

As we transition from the pandemic into a new normality, the key findings of these published reports have a greater relevance. This summary provides guidance for research leaders looking to build their strategy for the coming years.



Threading the funding needle could get even trickier

Academic institutions and labs that rely on grants and government funding already had it tough. Securing the money necessary to conduct and promote research is an extremely heavy lift. The application process is arduous, and the competition fierce — with a pool of available money that's highly contested. And that's before taking into account the impact of COVID-19.

Universities that house research centers are in the unenviable position of trying to prepare for an academic year with daunting income projections, while simultaneously aiming to position themselves as thought leaders in a landscape desperate for innovative direction.

As COVID-19 impacts all segments of the economy, research institutions that depend on tuition, government funding and grants have to take stock and be realistic about the long-term ramifications, while considering new models of working in response to potential changes.

For the professionals tasked with leading these institutions, finding creative ways to focus a spotlight on their accomplishments can act as a stabilizing force in an otherwise tenuous time.

Impact of
COVID-19

A Landscape Review

by Ithaka S+R and sponsored by Springer Nature:

According to [The Impacts of COVID-19 on the Research Enterprise](#)



25%
of labs
shut down
between
1 and 6 months



117
universities'
credit ratings
were downgraded
in 2020



400
US universities and
colleges declared
hiring freezes
(July, 2020)



51,793
academic employees
furloughed, laid off,
or denied a
contract renewal



\$200
Billion drop
in American Cancer
Society funding
(from \$724 B)

Three phases in organizational responses to the pandemic

A recent PwC study, cited by Springer Nature's study [Emerging from uncertainty: International perspectives on the impact of COVID-19 on university research](#), identifies three phases in organizational responses to the COVID-19 crisis.

The first phase is mobilization, during which organizations secure the safety of their workforce and establish appropriate response structures to continue basic operations. The second phase is stabilization, when organizations develop tactical responses to the challenges of navigating the 'new normal'. The last phase is strategizing, when they develop a strategy for emerging stronger in the post-COVID-19 economy.

Research leaders, if not already, should be moving their focus to strategizing for the future.



1. MOBILIZATION

2. STABILIZATION

3. STRATEGIZING

With income from grants and tuition in flux, research institutions face unknowns

What are some strategies institutions can implement to navigate the new normal? Three primary sources of funding that labs and research institutions count on — government, philanthropic grants and student tuition — appear to be headed in the same direction — downward — but on different timelines.

Since grants operate on varying schedules, some labs' funding may be secure while others succumb to funding hesitancy.



Not only have labs and research institutions been affected by changes in the grant funding process, but also in how the universities that house and help fund them are being negatively affected by coronavirus.

A report by London Economics for the University and College Union projected that universities in the UK would face a [projected €2.6 billion annual shortfall](#), putting an incredible strain on a majority of institution's ability to cover basic expenditures. That's just one country, but the trend isn't isolated.

With funding uncertainty how can academic institutions preserve their identity, keep their researchers connected and showcase their value to a vast scientific community?

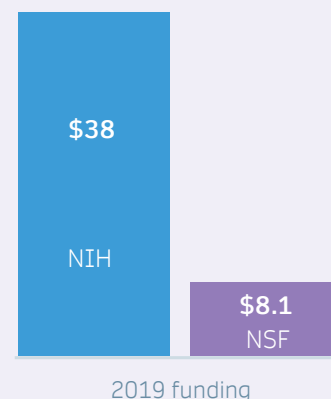
According to the [Brookings Institute](#), universities face revenue risk from loss of housing revenue, tuition from enrollment (especially by out-of-state and international students), and state funding.

Funding changes

In the United States, the NIH and the NSF are the largest federal grant-givers to biomedical and scientific research.

The [NIH granted \\$39 billion in 2019](#), while the [NSF gave \\$8.1 billion](#) that same fiscal year.

While the total amount given is large, the approval rate is extremely low: **Applicants have about a one-in-10 chance of being funded.**



Decision makers

Decision makers can choose two paths, according to [The U.S. Academic Research Enterprise \(US-ARE\): Possible Paths from the Pandemic](#) by the University of Michigan's Jason Owen-Smith and commissioned by Springer Nature.

1. Decisions can be made that focus on exploiting existing capabilities as effectively as possible to achieve known high priority goals.
2. Efforts can be made to prioritize the diversity of fields, people, missions and connections that make US-ARE institutions a unique form of social insurance against our uncertain future.



Respond with innovation



In this economic climate, universities are proactively creating opportunities that highlight the valuable contributions they're making in scientific research. To offset income cuts requires crafting strategies that can reinforce researcher skill sets, amplify findings to the right audiences and maintain standing in a global scientific community.

The Springer Nature report, [Emerging from uncertainty How universities can underpin a research-led recovery from COVID-19](#), cited the following strategies:



1. Protect research capacity

- Rebalance research effort to tackle changing national and global priorities
- Develop blended online and offline research methods
- Strike new partnerships to counter 'research nationalism'
- Address instability and structural inequality in academic career pathways
- Reform postgraduate research training



2. Transition to open science

- Increase investment in digital infrastructure
- Redefine roles for commercial and community actors
- Enable innovation in peer review
- Embed preprints in publication workflows
- Adopt open science as the 'new normal'
- Interrogate research data (your own and others) for additional insights.



3. Secure research funding

- Ring-fence research funding to underpin managed systemic change
- Realign research investment towards biomedicine, digital and green technologies
- Incentivize external partnerships, from discovery research to deployment
- Reform funding procedures to deliver greater agility and responsiveness
- Coordinate and collaborate solutions to improve research system sustainability
- Place a greater emphasis on partnering with industry for revenue to balance loss in funding



4. Support your team

- Institutions must reconsider how courses and research programs are structured. What can be done online? This may be the new normal.
- Support researchers and faculty emotionally. Provide tools and services to mitigate the impact on salaries and missed interactions

Conclusion

The pandemic created new challenges to telling the story of your research and researchers, but every challenge is an opportunity to adopt new strategies.

Reputation and the ability to support your researchers has never been more important to the success of your institution. Reputation-building tools and solutions that improve the skills and knowledge of your researchers underpin the fundraising, recruiting and research output of your institution. Meanwhile, reaching a wider audience, beyond the scientific community, is an increasingly important path to public support for scientific research.

Institutions must look at every facet of the organization to understand which teams and fields need the most support. Solutions will require innovation and are likely to involve a layered approach including digital infrastructure, researcher and faculty support, greater scrutiny of existing research output, and science communication.

Finding your way to a bigger, bolder, braver reputation among peers and the public is a daunting task, but those institutions that can adapt quickly will be positioned for success.



About Springer Nature Research Solutions

Advancing discovery by building the skills, confidence and careers of researchers.

Our comprehensive range of training, tools and services are built upon Springer Nature's unrivalled knowledge and are designed to empower researchers and institutions at every stage of the research cycle.

Learn more about [Springer Nature Research Solutions](#)

About the Springer Nature Group

Springer Nature opens the doors to discovery for researchers, educators, clinicians and other professionals. Every day, around the globe, our imprints, books, journals, platforms and technology solutions reach millions of people. For over 175 years our brands and imprints have been a trusted source of knowledge to these communities – helping them to improve outcomes, make progress, and benefit the generations that follow.

 Visit: springernature.com/group

 Follow twitter.com/SpringerNature

About us