Council Meeting Minutes
October 8-9, 2020

Virtual Meeting

Attendees

Council Members: Dave Armstrong, Bobray Bordelon, Jon Cawthorne, Lisa Cook (Chair), James Doiron, Kristin Eschenfelder, Mark Hansen, Trevon Logan, Lindsey Malcom-Piqueux, Ken Smith, Katherine Wallman, and Esther Wilder

ICPSR Staff: Kehinde Adeniyi, Annahita Akbarifard, Dharma Akmon, Trent Alexander, JD Alford, George Alter, Ambyr Amen-Ra, Homeyra Banaeefar, Annie Beaubien, Zachary Bennett, Ashok Bhargav, Lindsay Blankenship, David Bleckley, Johanna Bleckman, Jennifer Brady, Jon Brode, Amber Bryant, Sarah Burchart, Monica Butler, Scott Campbell, Stephanie Carpenter, Robert Choate, Rebekah Chu, Alina Conn, Gin Corden, Evan Cosby, Paul Courant, Farrah Cundiff, Edward Czilli, Valyn Dall, Sara Del Norte, Linda Detterman, Ren Dickson, Curtis Dobbs, Amanda Draft, Benjamin Dreyer, Julie Eady, Nesma Elsayed, Allyson Flaster, Wendi Fornoff, Aubrey Garman, Chelsea Goforth, Gabriela Gomez-Zubieta, Stephanie Hall, Skylar Hawthorne, Libby Hemphill, Lynette Hoelter, Rachel Huang, Stuart Hutchings, Michael Iannaccone, Samuel Imbody, Sanda Ionescu, Abay Israel, Edward Czilli, Meghan Jacobs, Joy Jang, Allison Jendry, Matthew Johnston, Jeff Jones, Vandan Juvekar, Kevin Kapalla, Lisa Kelley, Kilsang Kim, Dory Knight-Ingram, Piotr Krzystek, Sara Lafia, Kathryn Lavender, John Lemmer, Susan Leonard, Margaret Levenstein, Scott Liening, Daphne Lin, Jared Lyle, John Marcotte, Trisha Martinez, Arun Mathur, James McNally, Elizabeth Meier-Austic, Dan Meisler, A.J. Million, Bianca Monzon, Elizabeth Moss, Alexander Mueller, Sweta Naik, Anna Ovchinnikova, Michelle Overholser, Eszter Palvolgyi-Polyak, Konstantinos Papaefthymiou, Sarah Pearson, Shelly Petrinko, Brent Phillips, Amy Pienta, Katey Pillars, Darleen Poisson, Daniel Pritts, Shane Redman, Kyrani Reneau, Kylie Romain, Sarah Rush, Brianna Sabol, Steven Selleck, Annalee Shelton, Michael Shove, Brenae Smith, Michael Staggs, Fillippo Stargell, Sharvetta Sylvester, Jen Tyson, Sandra Tang, David Thomas, Andrea Thomer, Michael Traugott, Allison Tyler, Rujuta Umarji, Vanessa Unkeless-Perez, Diane Viebahn, Xiaosen Wang, Jason Weirauch, Jay Winkler, Jianzhen Xie, and LingLing Zhang.

Approval of the Minutes

Council Chair Lisa Cook called the meeting to order and asked for approval of the June 2020 Council minutes. The June 2020 minutes were approved unanimously.

Director's Update

Margaret (Maggie) Levenstein, ICPSR Director, gave a presentation on the state of ICPSR. Maggie indicated that although ICPSR is working remotely, we continue to grow and have secured new projects in data collection, data archives, and data stewardship. This year was the first ever virtual ICPSR Summer Program. The Summer Program moved all of their classes

online using Canvas and Zoom. They had the most participants in the history of the Summer Program, and the program was a financial success. Michael Traugott will remain Interim Director of the Summer Program for another year. The ICPSR Data Fair 2020 was a success as well with over 1000 unique attendees and over 10,000 clicks to the ICPSR website. Maggie reviewed planning for the growth of ICPSR as well as the research landscape today and what the future will look like if the COA3D project is funded by NSF.

Budget and Finance Committee Report to Council

Council members: Dave Armstrong, Bobray Bordelon, Jon Cawthorne (Budget & Finance Committee chair), Lisa Cook, James Doiron, Kristin Eschenfelder, Mark Hansen, Trevon Logan, Lindsey Malcom-Piqueux, Ken Smith, Katherine Wallman, and Esther Wilder.

ICPSR Staff: JD Alford, John Lemmer, Maggie Levenstein, and Darleen Poisson

The Budget and Finance committee met prior to the October Council meeting. Jon Cawthorne presented the summary of the state of ICPSR finances and changes to budgeting and reporting practices (see slides below). The Council responded to his report by noting that the current financial reporting is an unbelievable improvement over past practices. ICPSR now has realistic budget plans, which has not always been the case in the past.

Highlights:
- One of ICPSR's strategic goals is to improve financial reporting - including budgeting and forecasting
  - The variance from approved budget to year-end bottom line was much smaller than prior years
    - ICPSR's total operating expenses FY2020 year-end variance was $113K on a $10.4M budget (1.1% variance)
    - The operating salary expense variance was only $12K on a $6.6M budget (0.2% variance)
  - ICPSR was able to correctly forecast (and report at the March Council meeting) that FY2020 would end with a small surplus

Next steps / moving forward:
- ICPSR Administration has started meeting monthly with Unit Directors to review each of their units individually
  - Current meetings have focused on comparing FY2020 year-end results to FY2021 budget
  - Future meetings will look at year-to-date data and review known changes within the unit and incorporate those changes into the fiscal year projection
  - These meetings with the Unit Directors will also be the place where planning for fiscal year 2022 will start

Council asked how university budget cuts have affected ICPSR? ICPSR receives a very tiny part of its budget from the University of Michigan's "General Fund" (the state-supported funds), mostly to cover a portion of the costs of the Resource Center for Minority Data. These funds have not been affected by the current COVID-induced financial stringency. There is a university-level freeze on hiring and discretionary spending; exceptions to the hiring freeze are allowed for positions that have sponsored funding. ICPSR has used this exception process several times. There has been a salary freeze, but there have not been pay cuts as is the case at some other institutions. We are keeping a close eye on whether there will be a drop-off in Membership funding. We have not raised fees this year, even though we previously intended to do so. Council also inquired about when ISR should expect to hear about the NSF COA3D award. We will hear in December if the grant goes forward to next stage. If we do, the proposal will go to the National Science Board in February or March, after which we would hear whether we have received final approval. If we do, the project has an expected start date of July 1, 2021.

SUMMER PROGRAM

Council Members: David Armstrong, Lindsey Malcom-Piqueux (Summer Program Committee chair), Esther Wilder

ICPSR Staff: Trent Alexander, Ashok Bhargav, Scott Campbell, Stephanie Carpenter, Linda Detterman, Stephanie Hall, Stuart Hutchings, Piotr Krzystek, John Lemmer, Elizabeth Meier-Austic, Eszter Palvolgyi-Polyak, Amy Pienta, Kyrani Reneau, Fillippo Stargell, and Michael Traugott

Mike Traugott, Director of the ICPSR Summer Program, began the meeting with a discussion of the 2021 Program. The course of the pandemic is the biggest unknown affecting current planning. Yesterday, the University of Michigan announced that it is cancelling study abroad programs in the Winter semester. The University is making decisions and judgements about closures and cancellations in relation to the normal academic calendar. Summer Program staff are taking the University of Michigan's actions into account when making decisions about the 2021 Summer Program, the calendar, and planning. The ICPSR Summer Program leadership would like to get advice and support on two recommendations: (1) Mode of instruction; and (2) fee structure. The Summer Program Committee will take back to the full Council their support and concerns about the recommendations.

Proposed Fee Structure

Mike presented the proposed 2021 fee schedule for the 4-week sessions and the short workshops. The recommendation of the Summer Program staff is to return to the original 2020 fee levels, but eliminate most ad hoc discounts that have been provided in the past. This also means that the discounts put in place in 2020, when the decision was made to move to remote instruction, would be eliminated. The proposed fee schedule would maintain the distinction between Member rates and Non-Member rates whereby members pay 45% of what non-members pay. Discounts for early registrants would also remain in place. The proposed fee structure for short workshops

would also maintain the 15% discount for returning participants. The crossed out numbers are the 2020 program fees, and the numbers next to them are the proposed 2021 program fees.

Proposed 2021 Fee Schedule for 4-Week Sessions

	Members		Non-Members	
	Before May 1	Beginning May 1	Before May 1	Beginning May 1
One four-week session	$2600 $2300	$2800 $2500	$4900 $4600	$5300 $5000
Both four-week sessions	$3800 $3500	$4300 $4000	$7300 $7000	$8300 $8000

Proposed 2021 Fee Schedule for Short Workshops

	Members	Non-Members
Three-day short workshop	$1600 $1400	$2900 $2700
Four-day short workshop	$1700 $1450	$3100 $2850
Five-day short workshop	$1800 $1500	$3300 $3000

Mike was asked whether the proposed fee structure is independent of the mode of instruction. Would it change if the program is delivered remote versus face-to-face? Mike responded that the decisions are independent. The fee structure proposal is a standalone proposal.

Mode of Instruction

Currently, there is not a clear picture on whether remote locations could be used for the short workshops in 2021. If the Program is completely online, it will be easier for ICPSR to assume responsibility for all aspects of the short workshop planning. The Summer Program staff have a reasonable sense that all will have to go online. However, they recommend planning for a hybrid program and revert to 100% online if things do not improve with COVID-19. The University of Michigan has technological infrastructure to support hybrid instruction.

Mike was asked if all short workshops would be based in Ann Arbor if the hybrid model were adopted. Answer is not clear. In the past, instructors wanted to teach from home institutions. However, Mike said he was not sure if that would make sense to maintain that arrangement in

the online environment. It also is not clear how instructional faculty would feel about having to come to Ann Arbor.

Council Member Dave Armstrong expressed skepticism about the quality of technical support in hybrid model at satellite locations because ICPSR would not have control over that. He shared that he would be more confident if ICPSR was providing the technical support.

Mike was asked whether there would be a difference in fees in a hybrid model for face-to-face and remote participants. Mike responded that there would be no differential fees for in-person and remote learning if hybrid carries forward. According to the course evaluations from the 2020 Summer Program, some participants did the Program remotely because it was less expensive, and there were more of those participants than those who were unhappy with remote instruction. Remote instruction is a better arrangement for some because they do not have to pay for housing in Ann Arbor.

Mike shared that the Program has been trying to avoid a complicated fee structure, but he is not sure potential participants would respond to paying the same fee for remote instruction versus face-to-face. The discussion raises interesting questions, but it is not possible to know for sure.

It might be more effective to focus on course evaluation data to demonstrate that the Summer Program with remote instruction is a positive and effective learning experience.

Council member Esther Wilder asked the committee to consider what is lost when the Program occurs remotely in terms of acquisition of social capital and interactions. There may be some pushback if remote participants are paying the same as people who are doing the program in person. Could it be possible to hold focus groups or gather impact to see how participants react to the proposed fee structure?

Council member Dave Armstrong responded that an in-person experience would still be available for those who want it. The remote option provides convenience, and participants' choice of in-person versus remote may be independent of the cost and logistics. There is an opportunity cost of being away from home.

Mike suggested doing some revisions to the promotion and advertising that incorporates the experiences of the 2020 program participants. This could include video components that speak to the quality of the remote instruction in a different and a positive way. The course evaluations did include some negative comments about the remote learning experience which relate to personal life. Summer Program staff would need to think about how to take that into account.

Mike shared that promotional materials can talk about this in terms of the quality of the experience but not learning outcomes. The data are not available for that.

Council member Trevon Logan added that it is not certain that universities will support travel this summer, so the remote option is important to have. Many institutions could have budgetary issues that lead to travel bans. It is important leverage last summer's experience and advertise and market based on the 2020 program.

Proposed Summer Program Alumni Association

Mike discussed developing what would be equivalent to an Alumni Association for the ICPSR Summer Program. The alumni association could provide a more systematic way to support program participants entering the job market, thinking about tenure, establishing research collaborations, etc. Assistance would be primarily in the form professional development.

The Summer Program Newsletter distributed to approximately 12,000 past Summer Program participants mentions the Alumni Association, and includes a request for funding for scholarships and a sign-up for mentors. It has not been long enough since the newsletter was sent out to gauge the level of response.

Maggie Levenstein and Lisa Cook reached out to the Sloan Foundation about funding ICPSR Summer Program Diversity Scholarships. Maggie is also working with the ISR Development office on this.

Committee Action Items

In the report out to the Full Council, the Summer Program Committee will present their views on the fee structure and mode of instruction recommendations. The Summer Program Committee support the proposed fee structure and the decision to plan for a hybrid model of instruction.

Point: key decisions need to be made regarding the fee structure and mode of instruction. The ICPSR team's recommendation is that we revert back to the higher fees charged in 2019, rather than continuing to charge the decreased fees of 2020. ICPSR recommends that we plan for hybrid instruction (remote and in person) and adjust to move to all remote as necessary.

Membership and Education Outreach

Council Members: James Doiron, Mark Hansen, and Katherine Wallman (Membership and Education Outreach Committee chair)

ICPSR Staff: Jennifer Brady, Amber Bryant, Becky Chu, Linda Detterman, Allyson Flaster, Lynette Hoelter, Dory Knight-Ingram, Joy Jang, Konstantinos Papaefthymiou, Amy Pienta, Shane Redman, Kyrani Reneau, Annalee Shelton, Brenae Smith, Sandra Tang, David Thomas, and Xiaosen Wang.

Impact of COVID-19 on Membership
The committee reviewed a report about membership status and COVID-19 hardship response. Staff presented an overview showing that membership payments are a bit behind this year which

we expected to happen because of COVID-19. So far, 11 institutions are fully or partially subsidized due to financial hardship.

Data Fair 2020 and Upcoming Events
Data Fair 2020 was a big success with: over 500 institutions; 70 Countries; and over 2,000 unique participants attending across the sessions. From the attendees, we will invite new (and in some cases former member) organizations that were represented in the participants to consider joining ICPSR membership. The next promotional event is Love Data Week in February which ICPSR has been a leader in celebrating among the community. ICPSR's biennial meeting is being planned for in-person in the fall unless COVID-19 travel constraints remain in place. Council shared that World Statistics Day is happening October 20 (it's only every 5 years) in case ICPSR wants to use it for promotional activities.

ICPSR Student Sandbox
We will soon offer an openICPSR repository space just for students (from member organizations) to share data that they have collected. It has detailed help instructions and training materials -- so it is focused on professional development for students. Hoping to launch the site before the end of the semester.

Updated OR Sabbatical
In the past, ICPSR had a program where we invited ORs to be in residence at ICPSR for 4 weeks to develop an ICPSR product; this program has not been operating recently but ICPSR is considering reinstating it with an update. The new plan is to invite ORs to create an ICPSR product, but not require being co-located at ICPSR.

Reinstating the ICPSR student internship
This is another former program that ICPSR is considering bringing back with a new focus. ICPSR feels there is merit to running a program that connects undergraduates to the mission of ICPSR, especially freshman and sophomores. The past program included graduate as well as undergraduate students. Council had a favorable reaction to this program and the plan to focus on undergraduates.

Data Journalism
The group talked about how to better connect ICPSR resources to data journalists. A suggestion was made ICPSR might attend NICAR or other data-oriented journalist conferences.

Technology and Standards

Council Members: Bobray Bordelon (Technology and Standards committee chair), Kristin Eschenfelder, and Ken Smith
ICPSR Staff: Kehinde Adeniyi, Dharma Akmon, Trent Alexander, Ambyr Amen-Ra, Zachary Bennett, Ashok Bhargav, Johanna Bleckman, Jon Brode, Alina Conn, Linda Detterman, Chelsea Goforth, Stephanie Hall, Stuart Hutchings, Samuel Imbody, Abay Israel, Meghan Jacobs, Jeffrey Jones, Vandan Juvekar, Kilsang Kim, Piotr Krzystek, Trisha Martinez, Kathryn Lavender, John Lemmer, Susan Leonard, Maggie Levenstein, Daphne Lin, Jared Lyle, John Marcotte, Arun

Mathur, James McNally, Elizabeth Meier-Austic, A.J. Million, Bianca Monzon, Elizabeth Moss, Darleen, Poisson, Daniel Pritts, Kyrani Reneau, Michael Shove, Rujuta Umarji, Vanessa Unkeless-Perez, Jason Weirauch, Jianzhen Xie, and LingLing Zhang.

Computing Network Services

Trisha Martinez gave an overview (see slides below) of Computing Network Services (CNS). Trisha began with the CNS Unit's objective that through teamwork and continuous improvement, they will become a High Performing Software Delivery Team as measured by Software Delivery Metrics. Trisha reviewed their key accomplishes, challenges and their goals.

Metadata and Preservation

Jared Lyle gave an overview of Metadata and Preservation. A big part of the unit's work is the data-related bibliography, a unique resource that has been going for (20-year anniversary!). It is approaching100,000 individual resources, each reviewed by a human. M&P is also responsible for OpenICPSR. Nearing 5,000 studies released there. We have also been working with American Economic Association and other organizations and other publishers to release data and article packages. We have a new workflow for journals in OpenICPSR. We are also working on metadata standards and DDI alliance work.

Curation

Rujuta Umarji requested assistance from Council with Curation standards (the levels we implemented in 2018). Curation has made refinements since their release. Curation has three levels and there are curation activities associated with each. The group developing curation standards includes Rujuta, Amy Pienta and Dharma Akmon, so that the Business and Collection Development and Project Management are also represented. The curation standards are really a cross unit document that we all use. We are also thinking about creating a working group within the Curation unit to re-evaluate those curation standards, now that they have been in place for a while. Input on those standards would be helpful, especially from a perspective outside of ICPSR, and from someone whose is familiar with ICPSR, but who may use our data is a perspective that we do not always have. We know what our pain points are. Maybe we do not always know how to weigh them against what a researcher may want.

Discussion and Voting

The ICPSR Summer Program recommendations is that we revert back to the higher fees charged in 2019, rather than continuing to charge the decreased fees of 2020.

Vote: On a motion by Bobray Bordelon, seconded by Kristin Eschenfelder, the Council unanimously approved the recommendations is that we revert back to the higher fees charged in 2019, rather than continuing to charge the decreased fees of 2020.

The ICPSR Summer Program recommends that we plan for hybrid instruction (remote and in person) and adjust to move to all remote as necessary. The request was modified and voted on by Council.

Vote: On a motion by Bobray Bordelon, seconded by Kristin Eschenfelder, the Council voted to pass that the 2021 ICPSR Summer Program will be fully online.

Maggie Levenstein was asked to open the discussion of the possibility of eliminating one of the Council meetings. Maggie went on to explain that there had been discussions for a while about the cadence of the Council meetings as well as reducing the burden on Council members of traveling. Changing the cadence is complicated to do because it is at the March meeting that we introduce new members and have new member training. So the March meeting would be hard to eliminate. One advantage of moving the timing of our meetings to sync with the academic calendar year is that the reports that we give to Council would also be in sync (e.g., quarterly) rather than at these unequal times throughout the year.

With those reasons Maggie is recommending Council meeting twice a year, with an understanding that once was in person and once might be virtual in perpetuity.

Maggie also proposes that the small committees, that are working committees, function in between Council meetings, with the goal of higher quality, more continuous, input.

The thought is if we could have Council meet twice a year, for example, in April and October. We would will still have the October meeting which is organized with the same time as the O. R. meeting every other year. And in the April meeting we do the planning (e.g., budget and Summer Program) for the coming year.

The current Bylaws calls for the Council to meet three times a year. The Bylaws can be amended by Council at any point with a three quarters vote.

It was decided that Lisa Cook will send an email to Council via Michelle Overholser to vote on changing the Council meetings from three times a year to twice a year with the first meeting of 2021 being in April.

Request from Council

Lisa Cook indicated that the Council has comments for the ICPSR staff. Lisa Cook said

I think we agree that the committee structure is good. It helps streamline the conversation and make it more efficient to meet outside of Council meeting. I think there were two things that we would offer one is that some of the new members felt as though they might need some extra orientation. So maybe the in one of the committee meetings that is outside of the Council meeting, there could be some sort of orientation for new members to go in depth about what people actually do in that realm at ICPSR are like in a day in the life of an ICPSR staff members and working on that particular set of issues.

Make sure to communicate to Council and staff the new structure and implications of the new committee structure.

Council also wants to make sure that the committees are staffed appropriately, maybe in terms of the next period when we vote on new member. We might want to think about people who might be good on these committees, especially if we need more people say on the Technology Committee and we want to make sure that the resources of the committee are aligned with the share of attention that goes to that particular committee.

We all express our interest and making sure that staff are doing okay in this period. It is stressful on everybody, and there is a lot of uncertainty. You heard the conversation when we're talking about planning for an online summer program, but we really are concerned about the staff being stretched too thin and overwhelmed. So, anything that can be done to lessen the stress and uncertainty would be welcome.

Council asked if there a search and update on the search summer program search for director.

Council asked if there is a possibility for the next meeting to have a virtual encounter like a coffee or lunch smaller groups to talk to staff and not necessarily FuNC level staff. We think we get a lot of interaction with them. But this is what we're really missing in a virtual environment. So, we're just wondering if that can happen.
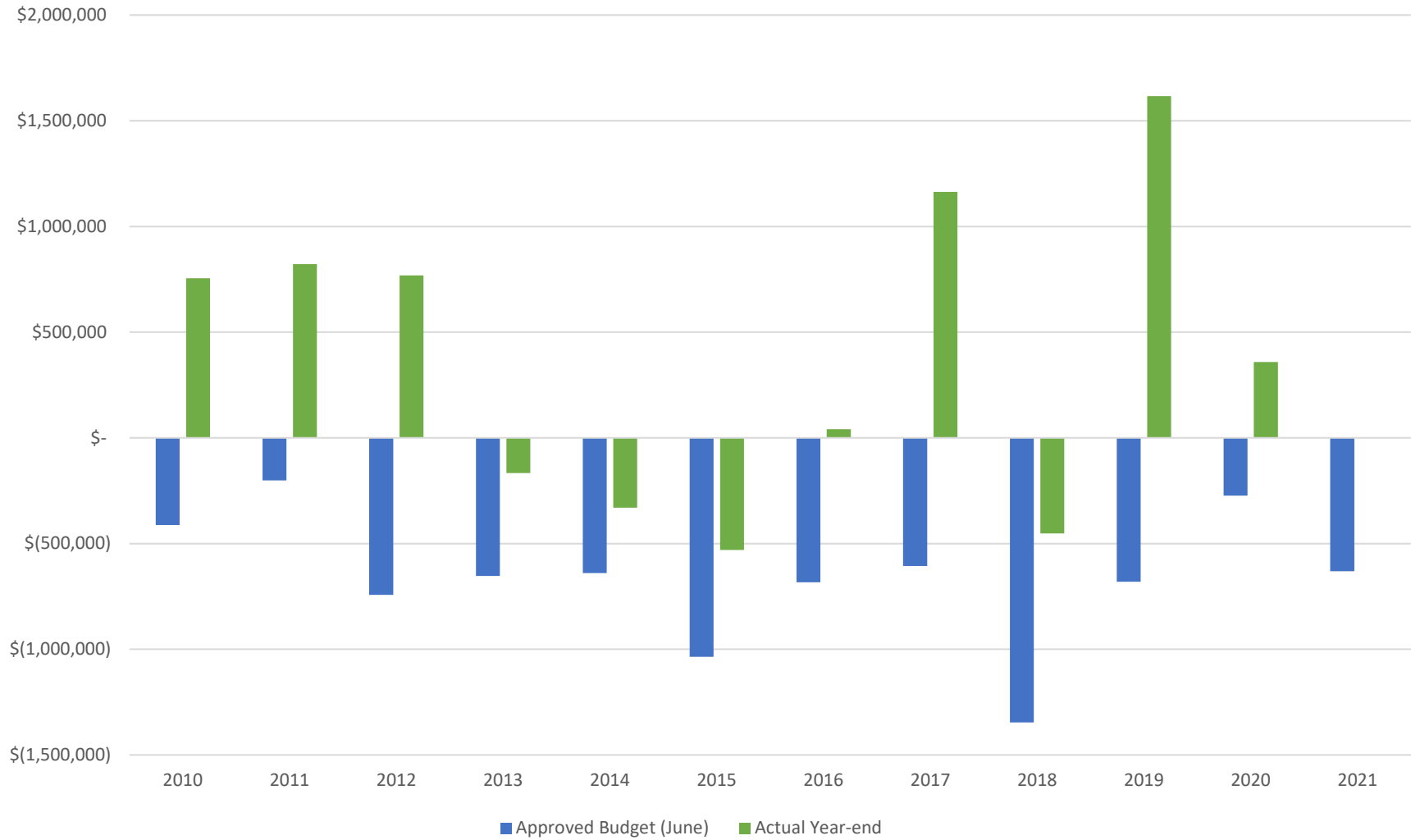
ICPSR Fund Balance
Total vs Unrestricted Reserves
Fiscal Years 2016 - 2020
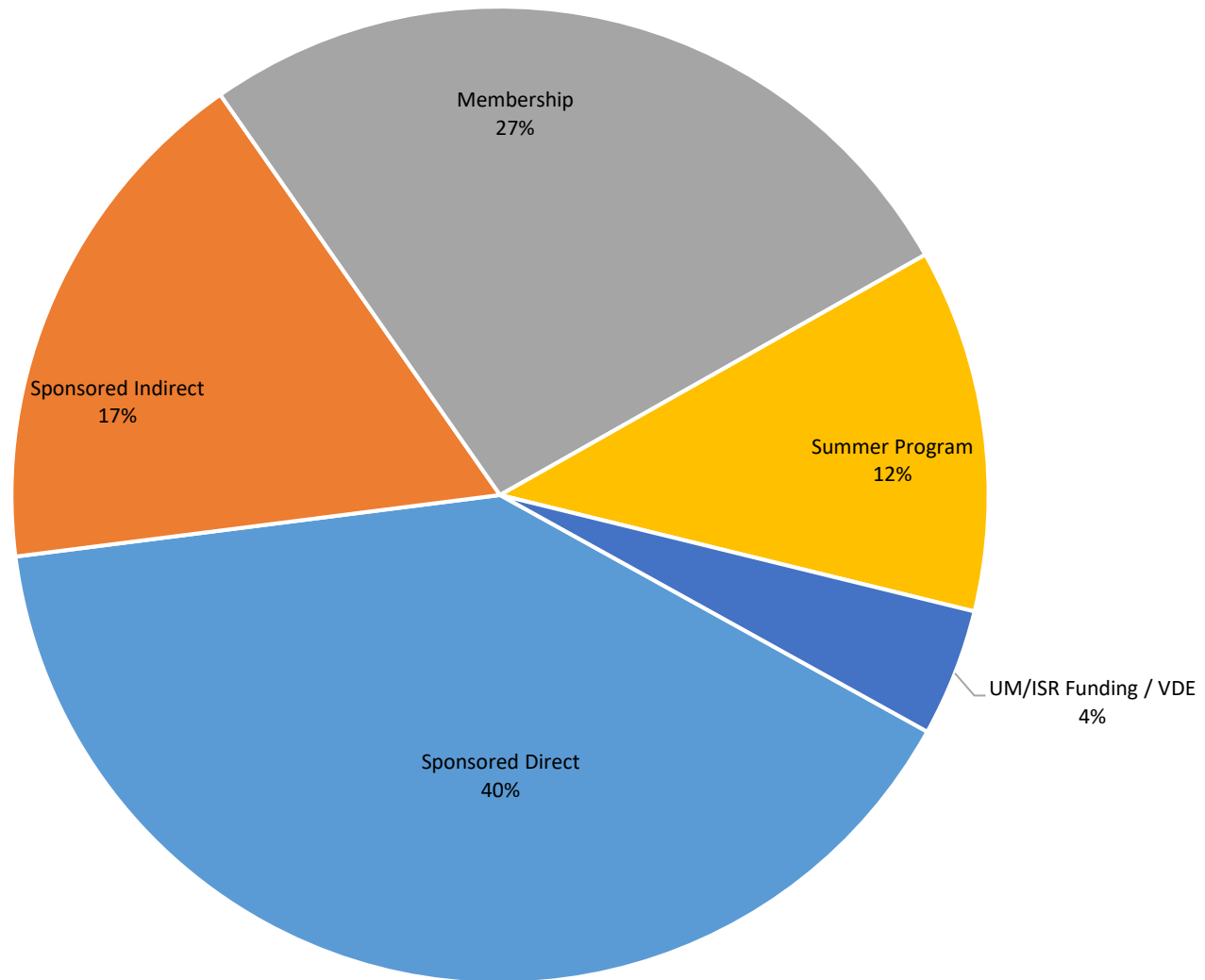
■ Total ■ Unrestricted
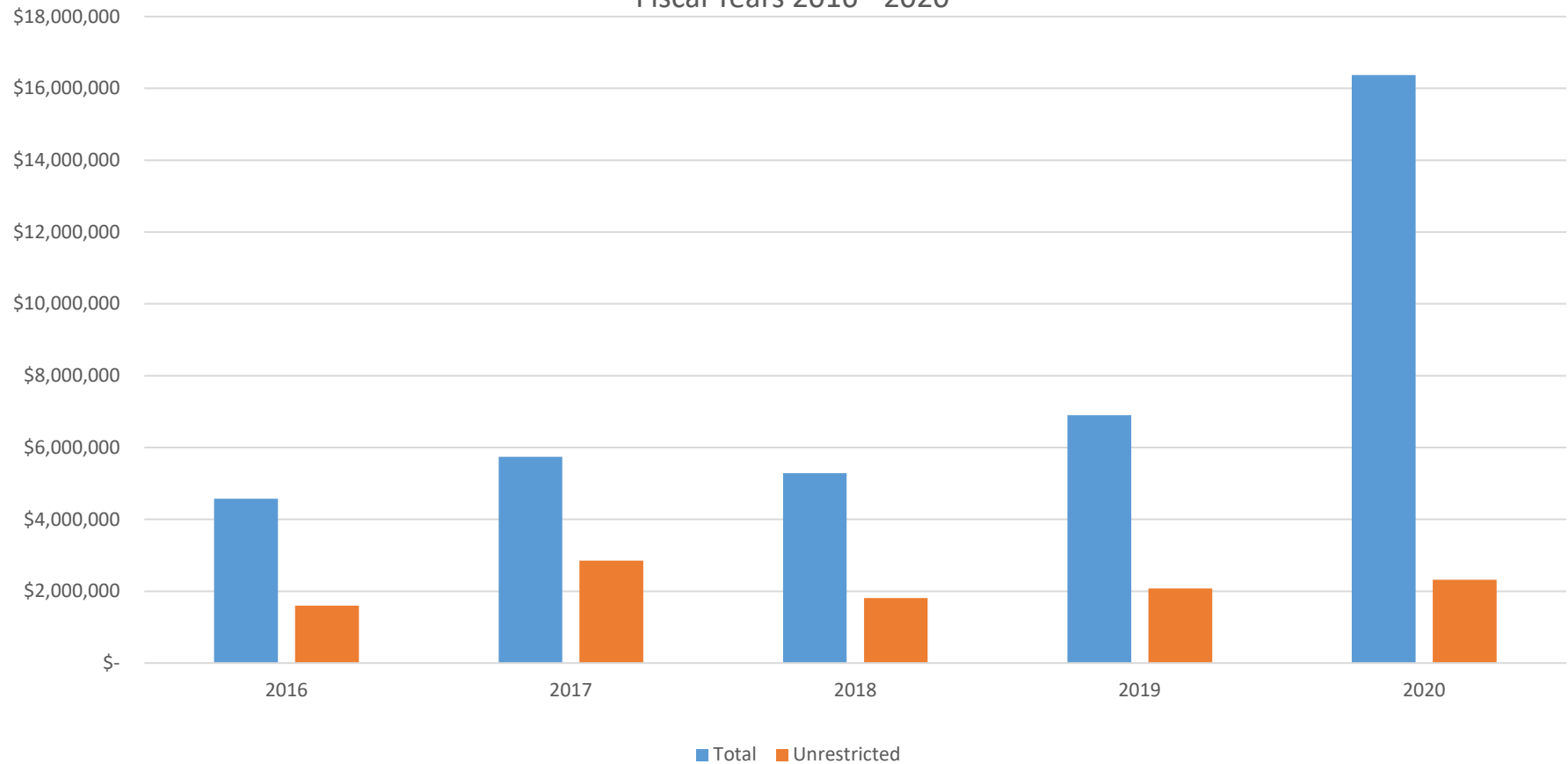
Restricted Funds include:
 - Endowments
 - Sponsored Fund Balance
 - Equipment Reserve
 - Minimum Reserve per ISR Policy
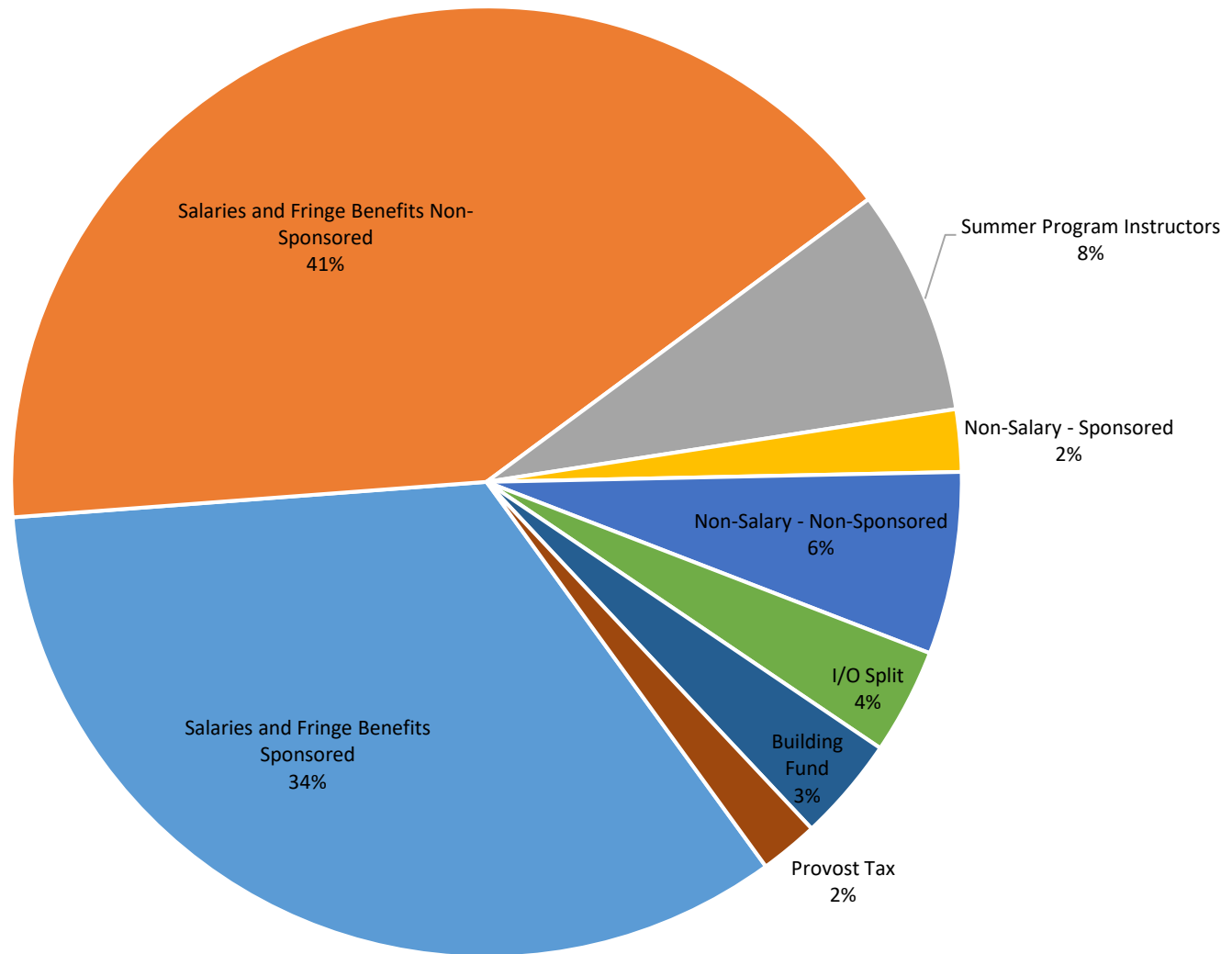   (3-month salary, SDA, Taxes, PRS IDCA Policy Commitments)

Revenue Less Expenses by Fiscal Year:
Approved Budget and Actual Year-end
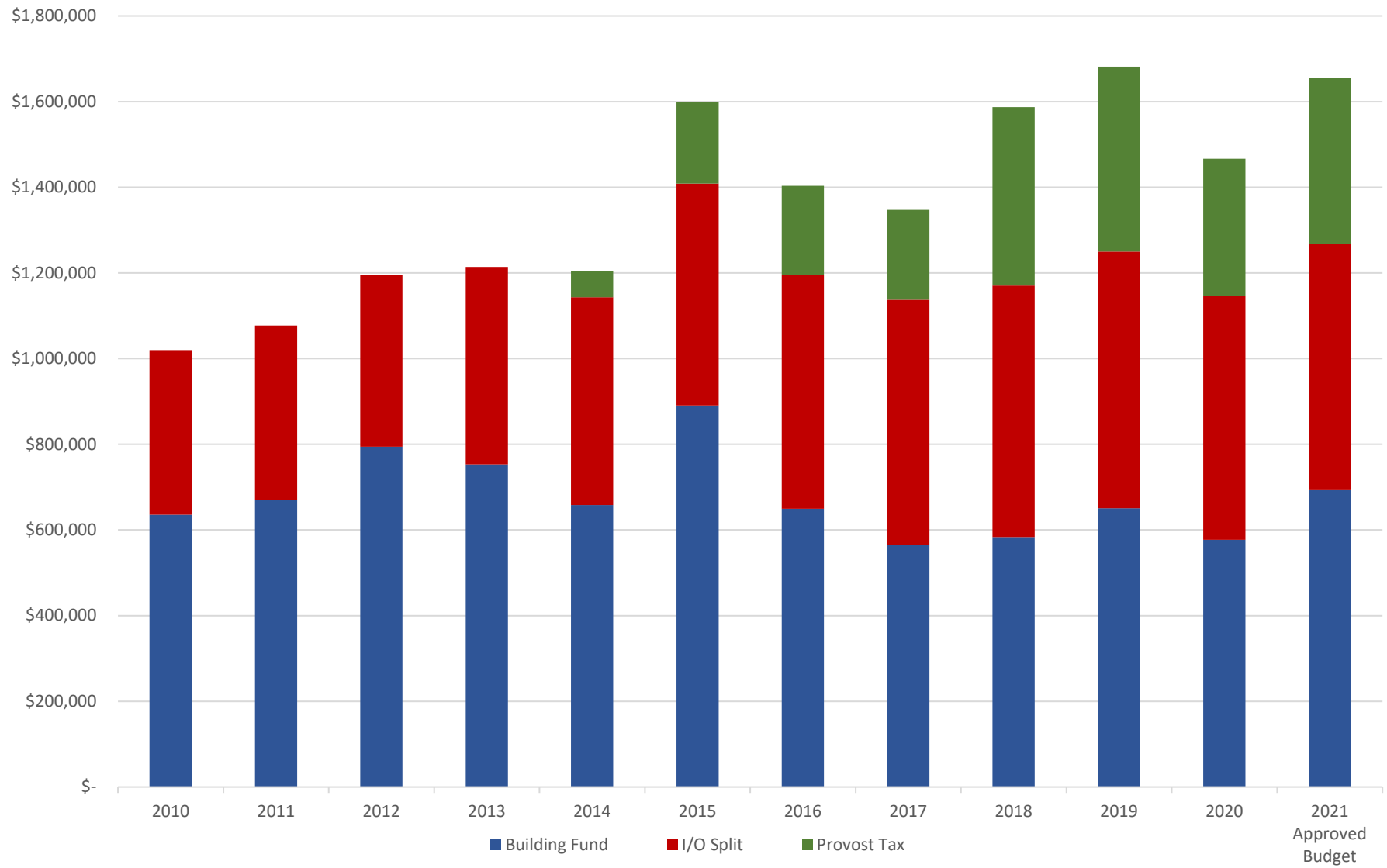
ICPSR Sources of Revenue - FY2020 Year-End

Membership
27%

Sponsored Indirect
17%

Summer Program
12%

UM/ISR Funding / VDE
4%

Sponsored Direct
40%

ICPSR Operating Expenses - FY2020 Year-End

- Salaries and Fringe Benefits Non-Sponsored 41%
- Summer Program Instructors 8%
- Non-Salary - Sponsored 2%
- Non-Salary - Non-Sponsored 6%
- I/O Split 4%
- Building Fund 3%
- Provost Tax 2%
- Salaries and Fringe Benefits Sponsored 34%

Sponsored Direct and Indirect Cost and Effective IDC Rate

Legend: Direct Costs, Indirect Cost, Effective IDC Rate

Year	Effective IDC Rate
2010	42%
2011	40%
2012	40%
2013	37%
2014	42%
2015	45%
2016	38%
2017	39%
2018	39%
2019	39%
2020	43%
2021 Approved Budget	44%

ICPSR Taxes and Rent

Legend: Building Fund, I/O Split, Provost Tax

Percent of Indirect Cost Revenue that pays for ISR Central Costs

Legend: Building Fund, I/O Split, Provost Tax
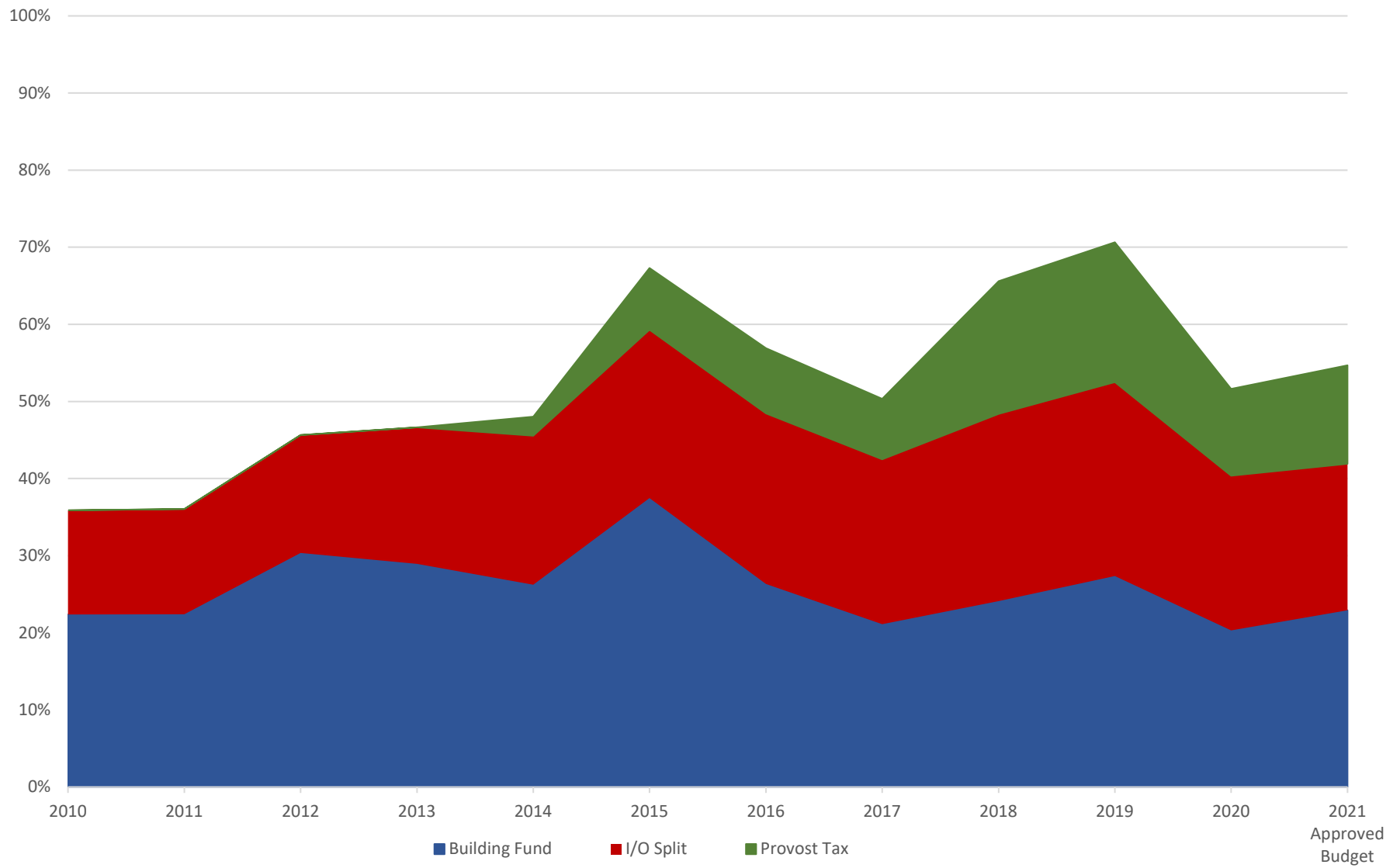
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Technology and Standards Breakout Session

Council Meeting
October 8, 2020

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Technology Section

ICPSR

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CNS Department Objective:
Through teamwork and continuous improvement, we will become a High Performing Software Delivery Team

Measure: Software Delivery Metrics

Source: Forsgren, N., Humble, J., & Kim, G. (2018). *Accelerate: The Science of Lean Software and DevOps: Building and Scaling High Performing Technology Organizations.* Portland, OR: IT Revolution.

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Four Metrics
for Software Delivery

Metric	Elite Teams (Top 20%)	High Performing Teams (Top 43%)	ICPSR CNS Sep 2020
Deployment Frequency	On-demand (multiple deploys per day)	Between once per day and once per week	Once every two weeks - Medium
Lead Time for Changes	Less than one day	Between one day and one week	Between one month and six months - Low
Mean Time to Restore	Less than one hour	Less than one day	Between one week and one month - Low
Change Fail Percentage	0-15%	0-15%	? Unmeasured ?

Source: Forsgren, N., Humble, J., & Kim, G. (2018). *Accelerate: The Science of Lean Software and DevOps: Building and Scaling High Performing Technology Organizations.* Portland, OR: IT Revolution.

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Drivers of Software Delivery Performance

Key Drivers:
1. Continuous Delivery
2. Culture of Psychological Safety
3. Clear Change Process
4. Lightweight Change Process
5. Cloud

Source: Forsgren, N., Humble, J., & Kim, G. (2018). *Accelerate: The Science of Lean Software and DevOps: Building and Scaling High Performing Technology Organizations.* Portland, OR: IT Revolution.

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Benefits of Continuous Delivery

Higher culture of psychological safety
Less burnout
Less deployment pain
Less rework
Higher job satisfaction
Higher identity
Higher Westrum Organizational Culture

Source: Forsgren, N., Humble, J., & Kim, G. (2018). *Accelerate: The Science of Lean Software and DevOps: Building and Scaling High Performing Technology Organizations.* Portland, OR: IT Revolution.

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Strategic Focus: Continuous Delivery

Teams can deploy on-demand to production or to end users throughout the software delivery lifecycle.

Fast feedback on the quality and deployability of the system is available to everyone on the team and acting on this feedback is team members' highest priority.

Source: Forsgren, N., Humble, J., & Kim, G. (2018). *Accelerate: The Science of Lean Software and DevOps: Building and Scaling High Performing Technology Organizations*. Portland, OR: IT Revolution.

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Accomplishments, Goals, and Challenges

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Key Accomplishments

1. Finalized COA3D PEP plan, successfully submitted to NSF
2. Converted our two contractors to ICPSR employees
3. Hired four new developers, starting mid-October
   - Two start Monday, Oct. 12
   - Two start Monday, Nov. 2
4. FUNC Operations Sub-Team created an IT Deliverables Calendar!
5. Continued migrating all of ICPSR's archive websites into new technology stack, led by Web Team
6. Successfully transitioned Summer Program to distance learning
7. Automated several AWS configuration operations, with more in the pipeline
8. Automated server builds for deployment on campus and in AWS
9. Sprint retrospectives, better acceptance criteria for epics are going well; demo days starting soon, one rehearsal done.
10. New NAHDAP website launched

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Goals

- Free up bandwidth for team to implement testing and trunk-based development
  - New mini-PEP plans for internal efforts, considering capacity
  - Effort to enumerate staffing needs to achieve IT Deliverables Calendar
- Increase capacity and capabilities of team
  - A2Agile training for CNS and all product owners; 4 hour training for Directors
  - Purchase and implement automated testing tools
  - Build "Evaluation" environment for user testing
- Hiring: Testing Engineer Lead, Security Lead

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Challenges

17 people left the Perry Building on March 13
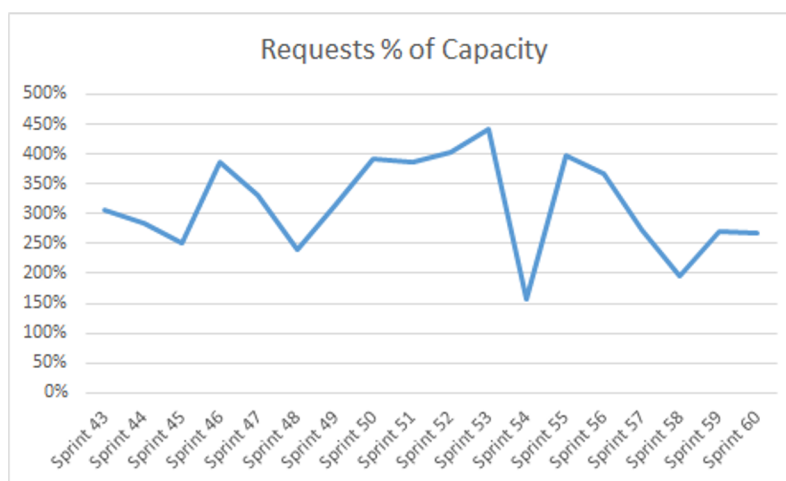
On Nov. 2nd, our virtual team will be 25

- Doubling of team size over next 9 months for NSF COA3D project
- Prioritizing work with 2-3x more requests of CNS than staff can accommodate
- Staying on the cutting edge of virtual research infrastructure to keep competitive rates
- Tracking effort on sponsored vs. non-sponsored work

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Challenge

Requests % of Capacity

Prioritizing work with more requests of CNS than staff can accommodate
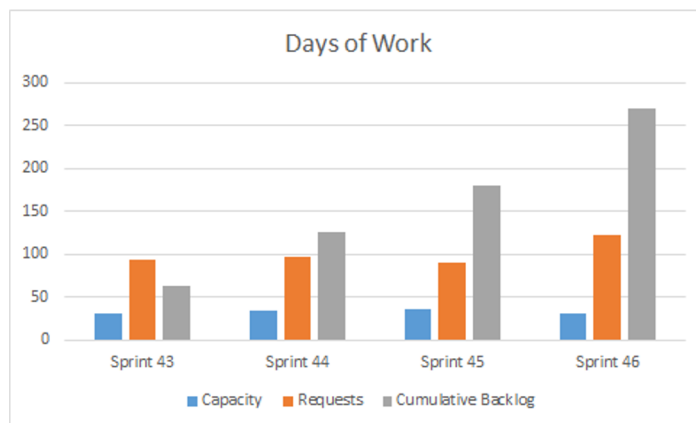
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Trunk-based Development

- The team has fewer than three active branches off of trunk at any given time
- Branches live for less than a day before being merged into trunk
- The team never has "code freeze" or stabilization periods
- The teams branches live less than one day and merging and integration is performed in less than one day
- The team relentlessly works to simplify systems architecture on an ongoing basis
- Substantial investment in test and deployment automation is encouraged

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Challenge

Prioritizing work with 2-3x more requests of CNS than staff can accommodate

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Preparing for COA3D

1	Enable Restricted Data App - IDARS + VDE Manage Consolidation
2	New Data Model
3	Build Test Environment
4	Release & Turnover Plan Complete
5	Testing Process & Tools
6	Monitoring Begins
7	Upgrade Software Versions
8	Security Documentation Process Improvement Effort
9	Legacy Stable with Minimal PERL Remaining

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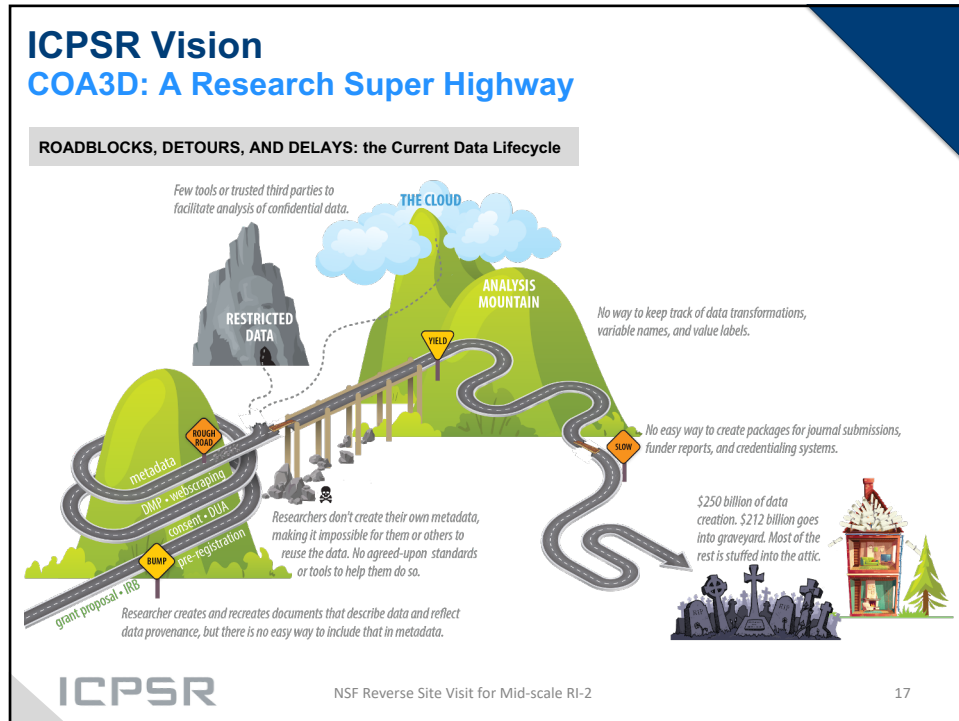
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Project Deliverables

	Description
Research Document Registry	For research design, hypotheses, confidentiality
DataBuilder	To web scrape publicly available administrative data
TurboCurator	For harmonizing and generating data and metadata
SOMAR Social Media Archive @ ICPSR	A repository with related tools for social media data
Video Archive	A repository with related tools for video data
SUNGEO Integration	Data discovery and integration of geospatial data
LINKAGE LIBRARY Integration	Technology to integrate code with data
RESEARCHER PASSPORT Integration	A credentialing system to access restricted-use data
StatSnap	Facilitating online data analysis and discovery
COBRE	Private and Public cloud-based research environments for analyzing restricted-use or large, complex, social science data

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