

RCD STUDENT WORKFORCE IG: 2024-02-13_Student-Program-Models_Funding_Hiring_Onboarding

MEETINGS:

Zoom: <https://internet2.zoom.us/j/86725439159?pwd=rCn4VruxXWPN74v7svHa83la6tFnAL.1>

EMAIL LIST: rcd-student-workforcedev@carcc.org. See also the [Google Group](#) for this working group.

TEAM MEMBERS:

Co-Chairs: Brian Haymore, Tom Cheatham, Betsy Hillery

Current Active Members:

IMPORTANT LINKS:

Interest Group Members	RCD Student Workforce IG Charter	
CaRCC Shared Drive	RCD Student Workforce Folder	RCD Staff Workforce Folder

Other email lists:

rcd-staff-workforcedev@carcc.org

Video: <https://youtu.be/QdQr0XLcaC4>

Topic: Discussion on Student Program Models: Funding, Hiring, and Onboarding Processes

Description: Student Workforce Development will be the focus of this month. Our agenda will cover student program funding, hiring, and onboarding processes. The meeting format will be an open discussion with prepared poll questions so that we can gather input from everyone attending. We will work through as much of the agenda noted below as we are able to cover in today's meeting.

Agenda:

- (~5 minutes) Welcome
- (~40 minutes) Topic Agenda:
 - Funding Models - (Discover diverse options for funding)
 - Grants, central, recharge, other
 - Pay rates, raises/advancements, retention, pathways to FTE?
 - What did we miss here?
 - Hiring processes
 - Job descriptions: who writes them, generic vs role specific?
 - Job postings: where/how advertised, word of mouth, most effective methods
 - Interviewing: who does it, what types of questions are asked for PT role?
 - How are mentors/hr managers assignments made?
 - What did we miss here?
 - *Onboarding steps, leading up to but not including job training.*
 - *HR vs department vs mentor/mentee onboarding*
- (~5 minutes) Wrap up with plans for next Student Workforce Development meeting Agenda
 - Plans:
 - Continue with any remaining agenda from the February meeting

- Training for students (mentee)
- Training for people who work with students(mentors)

Attendees: (sign-in, please: Name / institution / email) (24)

1. Betsy Hillery / Purdue University / eahillery@purdue.edu
2. Brian Haymore / University of Utah / brian.haymore@utah.edu
3. Claire Mizumoto / University of California San Diego / claire@ucsd.edu
4. Wirawan Purwanto / Old Dominion University / wpurwant@odu.edu
5. Michael Weiner / Georgia Institute of Technology / mweiner3@gatech.edu
6. Jim Leous / Virginia Tech Advanced Research Computing / jim.leous@gmail.com
7. Christina Gancayco / Stanford University / gancayco@stanford.edu
8. Jacob Fosso Tande /NC State University/ jfossot@ncsu.edu
9. Dana Brunson / Internet2 / dbrunson@internet2.edu
10. Laura Pettit/ Indiana University/ Impettit@iu.edu
11. Couso / University of Montana / michael.couso@mso.umt.edu
12. David Reddy / University of South Carolina / davidreddy@sc.edu
13. Gladys Andino / University of Virginia / gka6a@virginia.edu
14. Jayshree Sarma /George Mason University / jsarma@gmu.edu
15. McKayl U. B. / University of Montana / mckayl.bailey@umt.edu
16. Tony Elam / University of Kentucky / tony.elam@uky.edu
17. Anita Schwartz / University of Delaware / anita@udel.edu
18. Marina Kraeva / Iowa State University / kraeva@iastate.edu
19. Timothy Middelkoop / Internet2 / tmiddelkoop@internet2.edu
20. Joe Breen / University of Utah / Joe.Breen@utah.edu
21. Paula Lackie / Carleton College / plackie@carleton.edu
22. Patrick Schmitz / Semper Cogito / patrick@sempercogito.com
23. Swabir Silayi / George Mason University / ssilayi@gmu.edu
24. Todd Price / Penn State University / tup77@psu.edu
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Discussion/notes:

- **Funding Models** - (Discover diverse options for funding)
 - **Grants, central, recharge, other**

Institution Name	Description of funding model used as well as any comments you want to share.
Purdue University	Purdue uses a combination of funding models, students are supported on grants, general funding (central funding) and recharge. We also use corporations to fund students through our Data Mine unit.
University of Utah	Utah uses department funds to pay for student workers. We have explored the option of a cost recovery model for special projects that end users request to assist on a project.

Georgia Institute of Technology	Two models: 1. (standard) hourly pay funded by general/central funding for research computing center, mostly for undergrads. This might also include salary recovery from full-time faculty/staff hired partly for a project on recharge. 2. (new in 2024) partnerships with academic units to hire graduate (masters) students as GRA or GTA, with tuition support and monthly pay. Funding is roughly that we pay the salary, and the academic unit funds the tuition waiver
University of Virginia	We launched the program this past Fall, so right now all funding is coming from general funding for student employment. Hourly rate, total 80 hours a week
North Carolina State University	We do not have a student program structured out but we depend on student support especially on interdisciplinary projects. Funding is provided by grant money. There is a mix of stipend only and stipen/tuition waiver Outside of interdisciplinary projects, some research computing groups employ students, paid by the hour. The money for this groups comes from the general funding with no tuition support.
Indiana University	For undergraduate students, IU may hire as an hourly student using general funds or departmental funds depending on the type of work that they are doing. For PhD students they are paid with either departmental funds as an Associate Instructor (AI) or on a grant as a Graduate Research Assistant (GRA). MS students can be hired on grants at the PhD student level.
University of Ky	Combination of support from specific grants (specific projects) and Center (CCS) base funds for more general support.
University of Montana	There exists a student computer fee in incoming students tuition bill which contributes to the CSF fund, that in turn pays the wages for the students working at the main helpdesk as well as some of the advanced student admin roles.
Iowa State University	Currently students are supported on grants, including university grants, and general funding. Looking into partnering with colleges/departments to have their grad students work with researchIT during several months as part of their assistanship.
University of CA San Diego	We have a combination 1) general annual funding that is not guaranteed year-to-year; 2) use of staff "salary savings" from grants offset; 3) paid by other programs for project-specific support (e.g., CMMC, faculty research projects using admin data)
University of South Carolina (USC) Research Computing	The Division of IT (DoIT) at USC has a central pool of funding for student workers. Research Computing (RC) as part of DoIT can advocate for using a portion of that funding for student workers in RC. Typically we have four part-time student workers during the Fall and Spring semesters, and 2-4 full time internships during the summer depending on funding. We also supervise some student workers working on grants that RC staff are contributors on.
Arizona State University	ASU established all research to operate under Knowledge Enterprise. That organization strives to engage students to the highest level that makes sense. They currently cover those costs. Our current staff of 8 is augmented by 4 student workers. They engage in daily activities as well as projects for system wide improvements.

○ Pay rates, raises/advancements, retention, pathways to FTE?

Institution Name	Pay Range (\$/Hr)	Description of how raises/advancements and retentions are handled. Do you have an established pathway to take a PT student forward toward FTE when you find a good match? Any additional comments?
Purdue University		Purdue has a posted salary pay range that is used as a general rule of thumb - https://www.purdue.edu/studentemployment/site/docs/PayRange_PositionClassification.pdf . There are positions within RCAC that go above these salary ranges. The issue is having consistent pay and promotion across the larger IT unit.
University of Utah	Starting @ \$15-17	We have monthly sync ups between the students, their mentor and a student lead. Each sync up the student is scored on their goals for the last month. Presuming they are meeting expectations or better we do a 6 month \$0.50 per hour raise. We do have the option to make a retention case to bump up out of cycle or a greater amount if the need comes up. We have moved a few students from PT roles with us into FT roles. We have encountered some limitations in the HR job codes that cause some friction in some cases. We very much like that we can find future FT staff through the program.
University of Kentucky	\$16/hr	For general student support (part time(PT)) we ask students to attempt to work 10 hours per week (or more) but class work is always their priority. We attempt to also offer those PT students full time summer internship support. And of course, we hope to find potential students to hire full time when their education is complete (BS or MS) as appropriate. We have had good success in retaining students (across semesters & during summers) and in full time hires as well.
University of Virginia	\$18/hr	We use general funding, rates \$16 - \$26, we started all of our students at \$18/hr and we are structuring a 3-tier employment. Students with more experience will get \$1-\$2 raises based on skills and experience acquired
University of South Carolina (USC) Research Computing	\$12-\$15/hr	Raises are 1\$/year. Graduate students start at \$15. DoIT sets these rates, not Research Computing. Student workers funded by grants can get paid at higher rates.
Iowa State University	\$12-\$22	In HPC group the starting salary is \$17.20, raised to \$20 after 2 months. Can be raised further.
Carleton's DataSquad	college flat-rate \$12	I use job titles with increasing responsibilities as incentive to grow. We can't pay different rates. I also actively pursue setting up internships for engaged students; I send them around the world.
University of Montana	\$17/hr	The Career pathway program is being built by scratch with a bit of an iterative approach.
University of CA San Diego	\$23/hr	Student IT positions have a range but we don't often go beyond the minimum. Converting a student into staff is somewhat difficult. I did move a student to a contract position but usually they have to apply for an open position. We also have used a general Student Assistant position (rate: \$17/hr) in some cases. GSAs are handled differently and have a higher compensation rate.
Indiana University	\$16/hour	GSA rates for PhD students on a 10 month contract but they also receive full tuition remission and health insurance (health insurance covers summer). They can get a summer rate of

		\$26/hour.
Arizona State University	\$16	5 ranges, High Performance Computing (HPC) is Student Worker III (usually graduate students) which requires some level of technical expertise. Limit 20 hours/week, more hours can be extended during breaks if there are projects to do. We received 200 applicants in 3 days, and it took several hours to find candidates but had multiple qualified HPC Candidates this last round. We have hired 3 Student Workers in the past, and most leave for industry jobs after about a year. Recently we have attempted to incorporate Professional Development into their Role and Expectations.

○ **What did we miss here?**

Institution Name	What did we miss that we should have asked in relation to funding models?
Purdue University	Are students being used to replace full time employees?
University of South Carolina (USC) Research Computing	How to manage the transition between student workers and full-time positions, as the funding streams are completely separate, perhaps because full time employees at USC are considered state employees. The lead time for permanent non-grant-funded FTE positions is very long.
Carleton College	the overhead of managing students is different and under emphasized. That supervision needs to be a part of your own job description.
University of Virginia	Does the creation of a student program, the expenditure on student salaries and the investment of staff time in training and management have a positive return on investment? How do we measure that? Are we getting more out than we are putting in?
University of Ky	Agree with above, overhead of managing students is critical to student team success and productivity.
University of CA San Diego	Perhaps not something you missed but I am interested in how graduate research assistants are handled / hired at other institutions. We have a case where we wanted to hire a research assistant but they are in an academic classification and can't report to a non-academic.

● **Hiring processes**

○ **Job descriptions: who writes them, generic vs role specific?**

Institution Name	Are your job descriptions specific to the role	Who writes the job description (hiring
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	or generic or something in between?	manager, HR, other)
Purdue University	Jobs are very specific to the role across IT	HR will use job descriptions written by the hiring manager.
University of Utah	Our SUDO program has a bit of both. First the students apply in a very generic fashion to the larger program. Then when an opening in a department is presented to them we follow up with more specifics of that job description.	The sudo program covers the generic posting and the individual department/mentor writes the more specific description.
University of South Carolina (USC) Research Computing	Specific to role, job title, and skill set required.	Research Computing staff with oversight by IT HR.
Carleton DataSquad	role specific - they are fairly stable and vague enough to withstand tech shifts.	I do. With Student feedback. There are 3 levels: job title, job description, job "advertisement" There are 4 roles: Project Management Intern, Technical Writer (this is largely a prompt to get the programmers to communicate), data scientist, and lead data scientist (largely aspirational.)
Georgia Institute of Technology	Specific to the role or pair of roles currently open, though we sometimes reuse candidate pools (unlike FTEs, we have full freedom to write the student job descriptions without HR requirements)	Hiring manager or other (non-HR) team member
Iowa State University	Specific to job position	Hiring manager writes a job description. ISU hires a lot of students for the solution center. And the manager who hires/manages them also helps other groups with hiring.
Indiana University	In between, we have boilerplate language we use for types of roles but add in specific requirements with each job.	University HR and/or Departmental HR writes or approves the job descriptions and reviews the specific requirements per job which is submitted by the hiring manager.
University of Ky (CCS)	Our center does not have elaborate student position job descriptions. We develop general support or project descriptions for students that we need for that particular semester/summer.	General Support or Project descriptions are written by the center director or assoc. dir.
University of CA San Diego	Specific to job position	Hiring manager writes the job description; wish we had more of a template with standard research IT-specific language, closer to the staff job description process
University of Virginia	Generic: for undergraduate, some programming, a bit of DevOps, media experience, markdowns	Hiring manager writes the job description.
NC State University	The job descriptions are specific to the position	The hiring manager writes it
Arizona State University	HR uses the standard position but allows us to tweak and title to draw the right candidate	Hiring Manager finalizes it.

○ **Job postings: where/how advertised, word of mouth, most effective methods**

Institution Name	Where do you advertise
Purdue University	Campus HR sites / department sites, national groups (CaRCC)
University of Utah	SUDO program works the campus job fairs and some additional outreach on campus. Jobs are also posted on the campus HR listings. Many of our hires come from referrals from existing PT student workers.
University of South Carolina (USC) Research Computing	USC student jobs are advertised solely through Handshake, see https://sc.edu/about/offices_and_divisions/career_center/student_services/search_for_jobs/index.php
Carleton DataSquad	On student employment services' site. But Handshake is a good idea! .. and I use student word-of-mouth. Look to your Grace Hopper and Lovelace clubs as well. I also ask TRIO for shy first-gen or under represented students.
Georgia Institute of Technology	Campus student job board, our own website, word-of-mouth from current student employees, and email lists of our users
University of Ky	Job opportunities are sent to students via emails at the beginning of semesters or summer.
University of CA San Diego	Job openings are advertised via Handshake, which is managed by our student employment team
Indiana University	Job opportunities for students we may recruit from conferences (like SC), our internal website, job fairs, clubs on campus (robotics, HPC, Linux), faculty recommendations
Iowa State University	Job opportunities for students on ISU website
	We like to recruit from the HPC club on campus
NC State University	We do target the departments where we feel students have the skill sets that we need
University of Virginia	HR and student platforms, Outreach events, HPC user list and Virginia WHPC
Arizona State University	Campus Student Posting. Usually nets 100+ Applicants per day open. Never left open more than 5 days after the time it takes to process.

○ **Interviewing: who does it, what types of questions are asked for PT role?**

Institution Name	Who does your interviewing? What questions do you ask that you find most effective to identify the right candidate?
University of Utah	Hybrid, the first round of interviews for the program is done by the student leads and then for the

	specific role the mentor (and another team member or two) will do the final interview for the position.
University of South Carolina (USC) Research Computing	Research Computing staff. Student workers paid for on grants may be interviewed by grant PI or Co-PIs.
Carleton DataSquad	I do. But one of the roles I have is the DataSquad Project Management Intern. That person has done interviewing for me as well.
Georgia Institute of Technology	Intended supervisor and one other FTE. First round is a written interview, followed by a video interview for a few finalists. Examples of experience with problem-solving and with teaching/explaining a concept to a classmate/colleague/tutee (for user-facing roles)
University of Ky	Students are given email with project or support role descriptions, asked about their interests, applicable background/class experiences, and submit this information with their resume. All students will be given a "screening" interview by the Assc. Dir. asked a common set of questions and then ranked. Top candidates are then asked to participate in a second more technical/detailed interview conducted by key staff (Director may also participate). A couple questions include: What is a weakness of yours and what are you doing to address it? What would be your future dream job and why?
University of CA San Diego	For the Research IT team, director and 1-2 appropriate staff team members interview. Situational questions seem to be most revealing for us to understand the candidates
Iowa State University	Supervisor and one other group member. Trying not to scare away students with large groups. Questions are similar to full time position interviews, more on personality than on technical skills.
Indiana University	For GSAs it's usually the faculty member who has first-hand knowledge of the student's technical abilities. For other student hires, we'll have other technical staff perform a technical interview.
NC State University	The hiring manager do the interviewing but if the student will work across teams then, a cross recruiting group is put together.
University of Virginia	In-person interviews, 1 hour, 3 staff members, we used a modified version of questions that we used to interview our Junior staff minus a presentation.
Arizona State University	Zoom interviews, 3 staff members, on occasion we will invite an experienced student worker to listen in, but not engage. Availability, communication skills and experience using HPC are the main markers.

○ **How are mentors/hr managers assignments made?**

Institution Name	How do you pick who the mentor will be for a given role and does the mentor handle the HR management aspects of the student as well?
University of Utah	In our case the case for hiring a student is made by one of our FT staff. In nearly every case that FT staff member is the mentor for this student. Some aspects of the HR oversight such as timecards are also handled by the sudo program for the students.
University of South Carolina (USC) Research Computing	Mentors are typically the staff member whose roles and functions align most closely with the student job roles and functions.

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This is where we made it to the list of topics for our Feb 2024 meeting. Here is the link to the part 2 of this topic where we finished things out:
https://docs.google.com/document/d/1oXCigr2uSlu8e3HvKwc4DOMja1_MeftFY9_TrS6HBg/edit?usp=s_haring

- Onboarding
 - **HR vs department vs mentor/mentee onboarding**

Institution Name	What onboarding is done related to your campus HR, Department, and the mentor/mentee?
University of Utah	The SUDO program does a base onboarding for all student hires. This covers timecard, general expectations and details of how the program works. This includes detailing how monthly sync ups with the student lead, mentor and PT employee. For our Department we get them setup for physical access to the department, accounts, introductions, mailing lists, slack, etc. Mentors then take things to introductions within the team and onboarding for the role itself.
University of South Carolina (USC) Research Computing	Onboarding is done by Research Computing staff. The "HR" role is filled by students having been required to attend University 101 their freshman year and the requirement that they adhere to the USC Code of Conduct..
University of Virginia	Onboarding is done by Research Computing staff (mostly hiring manager). Onboarding is internally documented via wiki page.

- **What did we miss here?**

Institution Name	What additional mentor /mentee topics would you like to see?
Carleton DataSquad	Where do you get help with difficult situations (mental illness, breach of security, etc)
University of Virginia	How to get mentors to communicate better with students.

- Questions/Feedback

Penn State has what is called the AI Alliance, run by professional staff members, but using students for internal and external AI projects.

The biggest issue with using student labor is all the soft-skills that are necessary to keep them rolling.

Instead of training people, work with them on “Professional Development” as this casts the tone toward them, this is for you...

Spin “documentation” more into gathering content for posters, papers, and talks that could be pursued and add to resume content...

The job description should identify what the students will get out of the position, specifically highlighting (transferable) job skills that will be useful in any role. A list of these career competencies can be found at

<https://www.nacweb.org/career-readiness/competencies/career-readiness-defined/>.

We used to have a LUG -- Linux Users' Group for which I was the Faculty Advisor. It was fertile ground for undergrad hires. We even hired a few staff positions from it.

We have a LUG sponsored by our distributed IT community, and we are trying to outreach to students through Linux Install Fests and similar events. We are also engaging with one of the Living Learning Communities (LLCs) here at USC.

We also had a "Data Labs" student club and a student club that sponsored a semesterly (?) Hack-a-thon. Making sure that ITS employees served as faculty advisors was key in establishing a relationship with them.

Generally speaking in many univs, where can we find students who are comfortable in using Linux to begin with? That pool seems to be disappearing, at least in my impression, in universities. More and more people are becoming un-knowledgeable with the computers / devices they are using on daily and minute basis.

This is a fantastic call format! Thanks so much for organizing this topic in such an engaging and productive way!

@ Utah we do not really have internships on campus. Instead what we run into is students we employ are often being offered internships from industry, national labs, etc. So they vanish for the summer (or whenever it's scheduled) and we "hope" they will come back. We see this as a success indicator, them getting the offer, as feedback from the students is quite often that the experience they gained working with us is often key in them being accepted into the internship. Then they often come back with some fresh ideas they share with our department.

I have excellent students looking for summer work! If you need someone from mid June-Sept, please, let's talk! (plackie@carleton.edu)

Students in our Integrated Information Technology major are required to do an internship, and we do coordinate with that program about summer internships. We also have to be sure to call a summer job a summer internship if we want to employ international students for more than 20 hours per week.

There's also a local Business and Technology Community College in the area. A few of us serve on their Advisory Committees for Systems and Developer programs. We try to make sure that what we can offer as an internship (mainly in Admin IT) satisfies their requirement. Our Advisory Committee also put in an IoT course which the first students will have taken by this summer. There are plenty of Research groups that need IoT help. They are skilled in Python and know enough about electronics and sensors by the end of the class.

- Future

- I'm involved in starting a group (within IASSIST) for data support people who are new to data support. That is, there's a lag affect from the attention on Open Science that has lead to universities around the world who expect their libraries and other orgs to "do Open Science" .. but the staff have no idea what this means. To be honest, it's rather clear that the administrations don't know what that means either. (This is a fuzzy description of a fuzzy concept of how we might participate in the support of the larger domain of staff getting sucked into the vortex of STEM activities.) (PLackie@carleton.edu)
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- How do you measure your program / ROI? How do we quantify the program is effective?
 - What are the metrics/indicators (expecting many and variance here between roles)?
 - Are we getting further on projects with the PT help?
 - Are we getting more R&D done having PT help? Do they do the R&D or do they just free up FT time?
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Chat:

PEARC23 RCD Staff/Student Onboarding Checklist - Join the Effort

- ReadMe for the effort:
https://docs.google.com/document/d/1fnjhTbQNRtZRQ1wFHsE_ugUv9fRrml-kn8yfrvZ3acE/
- PEARC23 Onboarding Paper:
<https://docs.google.com/document/d/1tM6i-VOYncdX6heueQIScoMmypgFSPTyr5U--mSmQhY/edit>
- Join the Slack! <https://carcc.slack.com/archives/C06FL436DDF>

Next meeting:

March 12, 2024, 2pm ET / 1pm CT / 12pm MT / 11am PT (*Staff-focused agenda*)