



NNIP'S GUIDE TO WORKING WITH STUDENTS FOR DATA SERVICES

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STUDENT INVOLVEMENT AT DATA INTERMEDIARIES

Students can play a significant role at organizations that provide data and analytic services to their community, known as data intermediaries. Working at a data intermediary enables students to apply what they learn in the classroom to real-world challenges, while gaining new skills and perspectives about the place they live. Students also bring new energy and different points of view to these organizations. By creating opportunities for student engagement, data intermediaries build interest in the community data field as a potential career option. Finally, student placements strengthen ties between data intermediaries, community groups, nonprofits, and local colleges and universities.

The National Neighborhood Indicators Partnership (NNIP) is a peer-learning network of local data intermediaries that share a mission to help community stakeholders use neighborhood data for better decisionmaking, with a focus on working with organizations in low-income communities and communities of color. NNIP encourages its local Partners, which are housed in a range of institutions (e.g., applied university research centers, nonprofits, local foundations, and metropolitan planning organizations), to incorporate students into their work to better serve the community and provide enriching experiences for students.

This guide offers a framework for involving undergraduate and graduate students in community data services. The process can be organized into five stages:

1. Assess opportunities for student involvement.
2. Develop a recruitment strategy.
3. Design an onboarding process.
4. Guide student performance.
5. Encourage retention and ongoing relationships.

The five practices are crucial for fostering productive and mutually beneficial relationships among organizations, students, and the communities they serve. We use the term “student” throughout the guide to denote student workers, but we acknowledge that students may be compensated monetarily or with course credits. Although the primary audience for the guide is local data intermediaries, like NNIP Partners, the advice should be useful for any group looking to involve students in their work through employment, internships, research assistantships, work-study programs, service learning, or class projects. Additionally, many of the practices outlined reflect general best practices for managing and supporting all staff members.

ASSESS OPPORTUNITIES FOR STUDENT INVOLVEMENT

Advancing student learning is part of the mission of data intermediaries housed in academic institutions, so they may be more familiar with students participating in data management, analysis, and community outreach. For data intermediaries in nonprofits or other community-based organizations, bringing students into data services may be a new and challenging experience. Either way, any type of organization can benefit from student placement with proper reflection and preparation.

ASSESS OPPORTUNITIES FOR STUDENTS TO CONTRIBUTE TO DATA INTERMEDIARY SERVICES

Before recruiting students, the first step in crafting opportunities for students is assessing an organization's needs and capacity to host students. Organizations should determine gaps in skills among current staff and common needs across multiple projects. For example, a staff member at the University of Southern California's Sol Price Center for Social Innovation (Los Angeles NNIP Partner) pointed out that a degree program may require that students take courses like econometrics, making them a good fit for data analysis because of their expertise with particular statistical programs. The Baltimore Neighborhood Indicators Alliance (BNIA), an NNIP Partner, relies on students for communications support for their projects in lieu of a full-time communications position. Organizations can also look for open roles in specific initiatives where the projects' structure and workflow are suitable for students.

In addition, organizations should evaluate the availability of staff to spend time to onboard, supervise, and guide student workers. For example, if there is a consistently busy time of the year, perhaps coinciding with the production of an annual report or board meeting, there may not be enough staff time to sufficiently support a student. However, if timed right, having a student already on board could provide additional capacity during this busy time.

ESTIMATE TOTAL COST

A critical component of assessing the need and ability of an organization to host a student is understanding the full financial costs. The University of North Carolina Charlotte Urban Institute (UNCC-UI), an NNIP Partner, creates a realistic budget for how many students the center can support, keeping in mind expenses beyond direct payment to the students, such as transportation, materials, office space, and food. As students may need more intensive supervision or training than regular staff members, organizations should also account for the additional attention, mentorship, and management time spent by existing staff, both in budgets

and in project timelines. For organizations funded primarily by fee-for-service projects, staff should anticipate challenges in funding or tracking students' time as they onboard, train, and allocate assignments across projects.

As a network of organizations with a focus on serving communities with low incomes and increasing equity, NNIP recommends that all students be compensated either monetarily or with course credit. Data intermediaries should educate themselves about the legal and institutional requirements for compensating students and any related student employment programs. Some universities require students be paid wages. Compensation requirements may differ by degree program; for example, requirements for graduate student compensation that include tuition reimbursement or health insurance may substantially increase the costs of hosting student employees. Requirements may also differ for international students. It is possible that work-study programs may be available to subsidize wages for on-campus or external positions. Alternatively, universities may provide course or service-learning credit for internships. Students earning service-learning or course credit may need to complete a specific product or have staff report on their contributions. Universities may have limitations on the number of hours worked a week.

CRAFT STUDENT ROLES

Data intermediaries should identify ways to craft roles which allow students to gain new professional experience and apply skills and knowledge obtained from their coursework. The variety of roles students can fill—managing social media, marketing, event planning, analytics, data cleaning, data entry, helping with literature reviews, contributing data visualizations, or web development—can stretch resources and build in opportunities for learning. Some roles that span projects, such as social media management, have the added benefit of exposing students to a range of topical issues.

Within all these roles, students' levels of interaction with external community-based organizations varies. An NNIP Partner in Houston, the Kinder Institute for Urban Research at Rice University (Kinder Institute), emphasizes flexibility in structuring opportunities for hosting students. For example, a semester-long project with a community organization could be structured for a group of students to collaborate as a team and gain direct experience working with community nonprofits. An individual student might work closely with staff as a research assistant on a more intensely data-focused project.

The expected duration of a student's role is also important to consider. Students may participate in long-term projects with opportunities across multiple semesters or in projects with a limited time period. For example, BNIA's [Data Day](#), an annual event of talks and trainings that increases

community data capacity and inspires local use of data, relies on the support of a dedicated student fellow. The Data Day position allows fellows to see a project to fruition, cultivate a tangible skill set, and connect their university experience to the broader community within eight weeks. Alternatively, students can be included on an ad hoc basis to help execute projects. As part of the development of YourSTLCourts, the St. Louis NNIP Partner, Rise, reached out to the University of Missouri-St. Louis School of Social Work to recruit students to develop and implement a survey of court users.

Fitting community projects into an academic calendar is challenging. Supervisors should shape the scope of projects to realistically fill the time allowed in the semester. Setting up benchmarks throughout the academic term can help guide production.

IDENTIFY COLLABORATORS

At each stage of involving students in data services, there are opportunities for collaboration. Data intermediaries are located at universities, are independent nonprofits, or in metropolitan planning organizations, so there are many avenues for partnering. Potential collaborators include academic departments, specific professors, local nonprofits, city government agencies, or action coalitions. Even data intermediaries based in university centers can extend their reach to other departments. Not only will the types of potential partners vary, but the structure and level of involvement will as well. Data intermediaries looking for less intensive collaborations can reach out to academic departments for support with recruiting students or bringing in community-based nonprofits for background seminars.

For community placements, the data intermediary may need to be more involved with solidifying partnerships, setting expectations, and preparing and guiding students. The Kinder Institute's year-long service-learning [Community Bridges Program](#) is one example of a more intensive partnership. The service-learning course brings together the Kinder Institute; Rice University's sociology department; Rice's Program in Poverty, Justice, and Human Capabilities; and community nonprofits. The for-credit program pairs students with local nonprofits to carry out a faculty- or staff-supervised research project. These organizations need specific data support, often on how to use Kinder Institute's community data and tools. Kinder Institute invests extensively in supporting students throughout the academic year. Students spend the first semester learning about the communities they will serve and taking professional development classes and data-related trainings. During the second semester, they hone their data and research skills through a sociology course on inequality and urban life and focus on the collection and practical use of community-level data through the on-site placement.

Other community-based placement programs may be less formalized or operate without a classroom component. The University of Minnesota's Center for Urban and Regional Affairs (CURA), the Minneapolis NNIP Partner, houses the [Kris Nelson Community-Based Research Program](#), a community placement program that provides support during the on-site placement without a preceding semester of coursework. To structure these kinds of partnerships, formal materials such as memoranda of agreement or contracts may be required to set realistic expectations. The University of Minnesota has an [application guide](#) for community organizations looking to host students to help organizations craft projects appropriate for students. The projects may be short-term or long-term and consist of applied research, program planning, evaluation, or capacity-building. In creating partnerships, CURA encourages its community collaborators to draft job descriptions, conduct interviews, and make hiring decisions to ensure the placement is a good fit for all involved.

DEVELOP A RECRUITMENT STRATEGY

Whether for short- or long-term roles, data intermediaries should first write both a job description and a recruiting announcement which clearly describe the organizational goals and values, position requirements, potential assignments, and expectations for the student. Next, they should identify channels to recruit interested students. Organizations can get creative in their recruitment strategies and meet students "where they are" by tabling at student fairs, promoting jobs on social media, messaging students on listservs, and advertising around campus (e.g. flyers and posters or digital ads in campus offices). Inviting former interns to speak about their past experiences provides peer credentials for organizations and results in referrals of candidates who better understand the role. Additionally, teaming up faculty in related university programs or departments helps in recruiting students who are a good academic fit and have an interest in the subject matter. These relationships can create opportunities for presenting in classes, speaking on panels, integrating projects into service-learning curricula, or funding for student placement. It is helpful for data intermediaries to be open to working across campus with whichever departments provide students with the expertise necessary to complete the project.

ESTABLISH RECURRING STUDENT PLACEMENTS

Partners at university centers and community nonprofits alike, such as New Haven NNIP Partner DataHaven, BNIA, and UNCC-UI, have formalized partnerships with university programs and serve as placement organizations for recurring fellowships. DataHaven hosts roughly a dozen students each year from a variety of partnerships, including those with local universities and

public health workforce training programs. DataHaven also serves as a placement partnership site for Yale University's [National Clinician Scholars Program](#), which focuses on community-based participatory research and involves hosting clinicians who have completed their clinical training and are looking for experience with community engagement and research. This program is a good example of a service-learning position that bridges the classroom and the professional setting.

ADVANCE DIVERSITY

When recruiting student workers, managers and supervisors should actively design their recruitment and hiring practices to attract diverse candidates, just as they would when hiring full-time staff. Building awareness of institutional and implicit biases—racial, gender, ability, sexual orientation, socioeconomic—can help managers recognize and address biases and demonstrate their commitment to diversity. Students are in a period of professional growth and may have limited formalized work experience, so organizations should make their job descriptions accessible and inclusive. NNIP is striving to foster best practices for equity and inclusion. For example, a recent NNIP conference session led by Ellie Tumbuan included [strategies for equitable and inclusive hiring](#) practices.

These same considerations should be made in distributing tasks and creating opportunities for student growth. Given variability in skill levels among students and the extent of coursework completed, organizations should strive to give students a variety of projects, spreading assignments across across administrative, project management, and analytic domains.

EVALUATING A JOB DESCRIPTION FOR INCLUSIVITY

- Are your organization's values clearly stated in the job description?
- What skills are truly "required" versus those that can be learned on the job?
- What are the mentorship and professional development opportunities?
- Does the description include jargon?
- What resources are available to support students?

DESIGN AN ONBOARDING PROCESS

Both data intermediaries and community hosts need to be deliberate and thoughtful in onboarding student employees to maximize benefits for the students and the organizations. Both should create a standardized process for onboarding to introduce students to workplace culture, to set expectations, and to provide opportunities for learning the background information and skills necessary for their community data assignments. If data intermediaries

have flexibility in structuring positions, students can be brought on with some overlap so that new student workers can be trained in part by current student workers.

SET EXPECTATIONS FOR NEW HIRES

NNIP Partners experienced in hosting students recommend dedicating time in the initial onboarding to understanding student goals and expectations. This can take the form of jointly outlining shared priorities and measures for success. In the initial stages of onboarding, organizations should prepare a work plan for students. For example, CURA, which places students at local nonprofits, requires a work plan meeting between the student, community partner, and staff as early in the onboarding process as possible. The resulting document is signed by all parties so there is mutual understanding of expectations.

NNIP Partners have also developed workshops, intake assessments, and primers as tools to help understand the skills students bring to a position and areas for skill development. When multiple students begin at the same time, creating a group orientation can help create a “cohort” feeling, so students placed on individual projects do not feel isolated. Investing time on the front end of student placement helps forge mutual understanding of obligations and requirements. These early conversations and activities should extend beyond the initial onboarding process and feed into a plan to support learning throughout a student’s time at their host organization.

This is also the time to confirm key milestones and deadlines related to the student’s responsibilities. Recognizing the “student mindset” is crucial for ensuring a satisfactory experience for the student and the employer. Both data intermediaries and host organizations should be mindful that students need to prioritize school, and sometimes work can fall to the wayside. Student schedules and course workloads can often fluctuate over the semester, so data intermediaries should make sure to encourage ongoing communication about workload and responsibilities, especially during midterms, finals, and breaks. Managers should familiarize themselves with the academic calendar to adjust project timelines or offer variable schedules, if needed.

UNDERSTANDING STUDENT EXPECTATIONS AND GOALS

- What do students hope to gain by working with your organization? Skills? Subject matter knowledge?
- What are the demands of their program or curriculum?
- How flexible are professors about class deadlines?
- How does the internship fit into their degree path?

ASSESS INTERESTS AND SKILL LEVELS TO SHAPE ASSIGNMENTS

Students are not a monolithic group. Organizations will encounter a variety of skillsets when working with students, whether they are undergraduates or PhD candidates, so organizations should be thoughtful about the time and resources needed to support professional development for each level. Less experienced students need more guidance and training opportunities, while more advanced students need opportunities to apply knowledge in real-world settings. Conducting a skills assessment through an intake evaluation is one way to gauge experience and skill level. For instance, the Milwaukee NNIP Partner, Data You Can Use, developed an [intake sheet](#) for accepted students to assess abilities and areas for growth. Developing organization-wide procedures to recognize student needs and interests, support their development, and use their skills in meaningful ways makes the most of student positions. The initial assessment of students' skills is not a one-time exercise. As one Partner representative said, "It's not a simple box you can check off when bringing a student on. Figuring out what a student is able to do, what they're really good at, and what they actually like to do takes time and usually some trial and error. And it's probably going to change as they learn and grow. So, consider this an ongoing process and challenge."

PROVIDE RELEVANT BACKGROUND INFORMATION AND TRAINING

Students will perform better if they have a good sense of the overall mission and services of an organization, but supervisors should balance sharing valuable contextual information and overwhelming new student workers with background information. In the Kinder Institute's Community Bridges Program, participants spend the fall semester developing skills, professionalism, and knowledge about the community they will serve. Even if there is no structured course in place, students will be more successful if Partners provide whatever subject-matter context and background are required to be a responsible team member. Organizations should include time for students to familiarize themselves with research and data best practices, modes of communication, workplace operations, and subject matter relevant to their position (e.g., research protocols, needed software, previously published work on the topic). Outreach positions, for example, should include training in neighborhood history and community dynamics. Or if a student is doing primary data collection, such as resident interviews, there should be an opportunity for Institutional Review Board training requirements and training on conducting successful interviews. UNCC-UI requires students of all levels to complete the Collaborative Institutional Training Initiative (CITI) program course for research with human subjects and a brief data security training module.

GUIDE STUDENT PERFORMANCE

Hosting a student should be a valuable experience for all parties involved. To guide student work, both data intermediaries and hosting community organizations should establish clear goals for the student's time at the organization, factor in opportunities for feedback and professional development, and manage expectations about the scope and quality of student deliverables.

START SMALL

Because students will need to acclimate to the culture of the organization, the first weeks should be considered a learning period. Starting with tasks that are small in scope, non-urgent, and easily accomplished helps establish trust between supervisors and new students. To better support students as they get started, supervisors should align their own schedules to remain accessible and available to support students. In identifying work for students, supervisors should look for assignments with a definable scope and deliverable. Clear parameters help students feel ownership over a completed project, and breaking down projects into smaller, more digestible tasks helps build confidence and mastery of skills. Examples of final projects include creating a social media management plan, planning an event like a conference session or BNIA's Data Day, conducting a small research project, writing a series of blogs, or contributing analysis to a larger report.

CREATE OPPORTUNITIES FOR FEEDBACK AND ADJUSTING ASSIGNMENTS

Students come to organizations with varying levels of experience and comfort in communicating with supervisors, so holding periodic check-ins provides dedicated time and space for supervisors to regularly deliver positive and negative feedback and assess students' comfort students with their current workload. A supportive feedback loop facilitates monitoring the quality of materials produced and ensuring consistency across student and full-time employees. Additionally, creating a cycle for feedback allows students to hone their skills on smaller tasks before taking on more advanced work. Supervisors will spend less time checking for and correcting inconsistencies as students become more familiar with the organization's mission, tone, communication style, and products. NNIP Partners report that it is challenging to understand when and how to raise the difficulty of work for more advanced students while not overwhelming them, but regular communication and feedback will help inform these decisions. Once students demonstrate their ability to accomplish tasks, supervisors should look for opportunities to assign new responsibilities. Additionally, as supervisors become more familiar with a student's work style and speed, they can refine assignments.

EMPHASIZE PROFESSIONAL DEVELOPMENT

Integrating professional development opportunities like software trainings or subject-matter seminars throughout the semester or project helps build students' expertise. Organizations with capacity to support multiple student workers could create a structured program by hosting brownbag lunches, trainings, or guest speakers. Inviting students to participate in client or community meetings, conferences, or events creates valuable professional development opportunities. UNCCUI emphasized that bringing students into a variety of meetings, such as staff meetings, project meetings, and sometimes even meetings with clients, makes students feel included as staff and exposes them to a range of forms of professional communication. Client meetings have the added benefit of serving as networking opportunities with community partners as possible future employers for students after graduation.

ENCOURAGE RETENTION AND ONGOING RELATIONSHIPS

NNIP Partners use a variety of techniques to establish long-term productive and beneficial relationships with individual students and university systems. For example, the Kinder Institute signs memoranda of understanding lasting three years with community organizations that host their Community Bridges students. These partnerships rely on establishing and maintaining open lines of communication between students, organizations, and data intermediary program staff. The program requires monthly check-ins with hosting community organizations and twice monthly check-ins with students. One benefit to forging good working relationships with faculty, staff, or departments is direct channels of feedback. Organizations will learn from placements that do not turn out well and adjust their position design, recruiting, onboarding, or management. If they identify patterns of skill gaps, they may decide to develop training for students or work with departments to include building needed skills into academic curricula.

Creating pathways for growth encourages students to return to organizations after graduation or stay through their tenure in school. Offering chances for more experienced students to supervise and mentor their peers allows students to develop managerial and mentorship skills. However, organizations should ensure that advanced students who are monitoring, managing, or tutoring also get a chance to continue developing skills in providing data services.

Showcasing student products also brings collaborators together and aids in recruiting future students. CURA hosts a variety of events that highlights student-community projects, including a series of presentations followed by a social event like a picnic. More informally, the USC Price Center hosts data breakfasts at which they discuss a particular dataset or type of analysis over

breakfast burritos. These informal convenings profile student-created products, make data services positions more accessible, and introduce potential collaborators to opportunities.

CONCLUSION

Involving students in community data services provision takes advantage of the local talent pool and builds relationships among universities and other organizations. These opportunities also contribute to building a pipeline of professionals for the field by inspiring students to envision a career at an NNIP Partner or other data intermediary. This guide is a first step in improving the NNIP network's practices around recruiting, training, and retaining talented students. NNIP welcomes feedback and suggestions for other resources to incorporate into future versions of the guide.

NNIP is a collaboration between the Urban Institute and partner organizations in more than two dozen American cities. NNIP partners democratize data: they make it accessible and easy to understand and then help local stakeholders apply it to solve problems in their communities.



For more information about NNIP, go to www.neighborhoodindicators.org or email nnip@urban.org.