

Columbus High School Internship Program



CCI embraces the belief that positive, long-lasting change requires a personal touch, and a leadership commitment sustained over time.

Founder and President, Joyce Johnson, for decades has instilled these values in her firm and adhered to them in pursuit of an effective internship

program for the Columbus, Ohio, community. Starting in 2007, largely due to CCI's tireless efforts, Columbus has achieved such a program -- The SInC (STEM Industry Council) Summer Work Experience -- supported by dedicated volunteer membership from industry, education, and the community. The program provides that personal touch, connecting individual students from lower-income communities one-on-one to individuals from the professional engineering and construction work world. Below we outline some of the lessons learned and prospects for the future.

History

Since its start up in 1986, CCI has been initially offering CADD services and progressively advancing into 3 and 4-D modeling, virtual design, construction and asset management. As a small 100% woman-owned technology company, talented people needed to be motivated to join the firm and Joyce quickly developed her skills at identifying talent, motivating it and providing training.

As STEM education gained momentum nationwide, and Project Lead the Way (PLTW) emerged as a program to promote STEM, the Columbus City Schools made a commitment to developing STEM education through the PLTW program. When in 2007 the program created an advisory committee and sought representatives from local employers, Joyce jumped at the opportunity and in a few years became Chair of that committee.

The committee, now called SInC, became the vehicle for the internship program within PLTW.

Realistic Program Goals

The focus of the program is to make CCS students, many of whom are children of low-income or immigrant families, aware of STEM careers. It also exposes participants to workplace environments that may be unfamiliar to them.

Coordinated Program Structure

This program is run in close coordination with schools. Schools need to help identify promising candidates, and to help ensure that rules are being followed (e.g., permission slips for trips), since most of the students are under age 18. Internships are only one aspect of the larger effort to educate students about opportunities.

The program elements are described below as follows:

1. Identifying students
2. Identifying host companies
3. Matching students to host companies
4. Administering the internship
5. Trips and events

1. Identifying Students

This process begins with the setting of standards by the SInC core volunteer group. Standards are reviewed annually at the end of the previous year's summer internship, and are updated as needed.

This information must then be communicated to teachers and counselors at participating schools so that

they know what to look for. It ends with the complete list of students to be included in the process of matching students to internship positions at host organizations.

It is important to note that the list of students must be larger than the anticipated number of internship positions that will be available. The internship positions are valuable and limited in number, and if one student drops out, it would be a waste of the opportunity to not have another student ready to fill that position. In past years, students have had to drop out of the program either due to family issues (parents moving, student needs to care for a younger sibling etc.), or to conflicting opportunities (e.g., other educational programs, football camp). Although yet to happen, it is possible that a student might be removed from the program due to insufficient Grade Point Average (GPA) or transportation difficulties.

SInC standards from a sample year were as follows:

- 3.0 GPA
- At least two pre-engineering courses taken
- Enrollment in school STEM program
- Recommendation from teacher or counselor
- No disciplinary actions
- Access to proof that they can work in the United States (green card, birth certificate)

In other years, students were required to take an “ACT Bootcamp” program, or had to attend the program’s Resume Workshop courses¹. To qualify for a state funding program, one year the candidates were also required to provide proof of eligibility for SNAP (Food Stamps) if their family was low-income². The school must designate at least one program coordinator who can check in with the students to help identify promising candidates, encourage them to meet the standards, and to manage expectations, as not all students will get an internship every summer.

2. Identifying Host Companies

Students are being identified at the same time that efforts are being made to locate positions for them at host companies. Seeking positions is, to some extent, a year-round effort. While many host organizations reliably request the same number of students every summer, a few companies drop out of the program each year.

Finding new companies and other organizations willing to make a six-week commitment to provide space, supervision, and (optionally) a salary for a largely unskilled high school student takes a major effort. In the first few years, Joyce Johnson made hundreds of calls to engineering consultants and construction contractors in her personal Contacts list, resulting in 30-50 internship slots every year. Personal connections are needed with individuals who are able to make the decision to take on an intern.

¹ One reason for mandating participation in the workshop was that it was felt that if students could make it to a non-school location for a day, whether using transit or having a relative drive them, they probably could be able to commit to the transportation demands of an internship.

² This is not recommended, as it required a lot of additional intrusive paperwork, and excessive involvement of the family (imagine your kid being asked to bring your W2 to school). Further, the grantors wanted this to be a guaranteed program, and asked us to remove the program standards, and focus on household income to select interns. SInC wanted the program to maintain its STEM focus, and believed that eliminating the GPA standards would remove any sense of achievement for the kids participating in the internship program.

And persuasion takes time. Luckily many business, agency, and college leaders support the goal of the internship program, and are positive about taking an intern. Another “plus” is that financial concerns are not necessarily an issue, as SInC typically has funding to pay salaries for around 20 interns each year). However, there are other obstacles, including obtaining permission from superiors, and developing a role for the intern (Who will their supervisor be? Is there work they can do? Does that work need to be checked? Does that person who volunteered to supervise the intern have an unexpected assignment that Summer?)

One thing that helps reduce the “burden” of the program on the host organization is keeping the internship at four hours a day, and only six weeks during the summer. Host companies are free to increase their intern’s time, but SInC funding is only available to cover 20 hours per week.

IDEA: One engineering company that could not find a department willing to take on a six-week commitment, divided up the internship to be a week at each of its six departments (utilities, planning, structural engineering, etc.)

3. Matching Students to Host Companies

Initially, it was assumed companies would want to review resumes and hold a few in-person interviews for each position, but after our first year, we realized that this was nearly impossible, as kids could not leave school for interviews, and arranging out-of-school meetings with multiple underage students was problematic. Also, all the kids’ resumes looked the same, and most high school engineering classes are about coding or electrical engineering, and there were only two host companies that did that type of work. (So, when the host companies asked for kids “with an interest in structural engineering”, it was hard even to find a student who knew what structural engineering is.)

It is possible to hold interviews at a workshop event, but today our host employers are perfectly happy to be assigned a student based solely on transportation factors.

Before the matching, all host organizations must be called to confirm:

- The number of students they are taking.
- Are they self-funding or using SInC funds? If self-funded, will they meet the required \$15/hour and 120-hour program minimums?
- Are the proposed start and end dates acceptable? And if not, specify the desired start and end dates (minimum six weeks, can be longer if self-funding).
- Part-time or full-time? Mornings or Afternoons? – This information will be useful for matching students to positions.
- Do they require/request student resumes and/or interviews? (Most companies don’t.)
- Are they looking for a particular type of student (e.g., a student from a school the host graduated from, or a student who wants to learn CAD)?

4. Administering the Internship

Start-Up

The program requires a substantial amount of work in the first two weeks before and after the start of the program.

- The school’s point person needs to confirm with the students that they plan on accepting the internships (and if not, they need to find a replacement)
- Depending on host and funding requirements, students will need to fill out employment and tax forms, and present certain forms of ID.

- Ordinarily, some system of timesheets is required so that the host company can confirm the intern’s hours worked.

To keep track of students and hosts, a formerly manual and labor-intensive task for volunteers, SInC now requires both kinds of participants to register on “AirTable” which is free software that creates secure databases accessible to Job Coaches and others who need to know participants’ confidential contact information (<https://airtable.com/shriEOijV3Kn2fARu>). This level of detail has proven invaluable in maintaining communication, particularly with some students who may not be in the habit of answering emails, for instance.

Site Visits/Job Coaching

SInC hires school counselors every summer to do site-visits once every week or two at each employment location. This to ensure that the students have someone they feel comfortable talking to, and also to listen to employers’ needs to make sure they were being communicated effectively to the student. Most employers are not used to dealing with teenage employees, and many students have no familiarity with office environments, so there is plenty of opportunity for misunderstandings.

Much of the Job Coach’s duty is hand-holding with kids as they set up a checking account, learn about

IDEA: Owners who have large projects and hire contractors regularly (institutions, authorities or government agencies) could require or encourage contractors to host interns.

taxes, figure out how to navigate the transit system to get to work on time, and learn the importance of timesheets. If there are no problems to address during the visit, school counselors typically spend time talking with kids about their post-graduation goals, college, certificate programs, and how you need to study for the ACT/SAT to get into college, etc.

Manage the Money Responsibly

For our program, donations have to be handled by a third-party non-profit group, which can only disburse funds to certified non-profits (not directly to high school students). SInC is entirely staffed by unpaid volunteers and does not have the accounting procedures in place to qualify as a 501(c)(3), nor the funding to pay for accountants, and thus must pay interns, Job Coaches, and cover food and other event costs through another non-profit organization, which is in turn reimbursed from SInC’s donated funds. These interns are typically paid using 1099’s, which requires teaching the kids about taxes.

Trips and Events

There are a number of events associated with this program, including:

- **Career Preparation Workshop** - A local university engineering school hosts and helps to staff a weekend program that includes a Resume Workshop, Mock Interviews, and a discussion of workplace etiquette. Kids also get to speak with college students, and are encouraged to ask anything.
- **Workplace Etiquette** - In the Fall, SINC volunteers now provide a six-hour online training in soft skills
- **Internship Kickoff Party** – This is a pizza and cake party that takes place before the start of the internship, and allows the students and their parents to meet the Job Coaches and the employers, along with the internship program staff.



- **Tours** – Major employers have arranged tours for the program participants, including a new water plant, a concrete testing center, and an automobile factory. The kids especially liked meeting the staff working at these facilities, as they were interested in the types of work being done there. Trips can be a hassle during the summer, as school buses must be paid for, permission slips need to be collected, and kids must be frequently reminded about the date and time of the event, and where to get on the bus. Trips during the school year can be difficult as well, depending on the level of support from the principal in giving permission for only a select group of students to miss out on instructional time.
- **End of Internship Party** – Another pizza and cake party where the students, their parents, employers, job coaches, and staff celebrate the completion of another year. Local dignitaries are invited to speak, and they often take the opportunity to talk about the importance of the kids being the next generation of Columbus’ tech workers. Employers are often pleased to meet with City Councilmembers in such a positive environment.



Lessons Learned

Pay the students. Kids from middle-income backgrounds can afford unpaid internships. Kids from lower-income or immigrant families will usually avoid an internship if they can get paid more as cashiers. A few of our summer interns have actually worked as cashiers in the evenings.

Keep multiple connections open. Do not rely on one funding source, one high school, or one employer. One of our high schools left the program when the principal changed, and another school scrapped its entire STEM program over the summer. Donations from one source were lost for a year when one individual retired, and it took a few months to develop relationships with additional leaders at that company who could resume the annual donation.

Participation of school staff is critical, as is building up trust with schools. Ideally you want counselors and teachers steering the most promising students to your internship program. (“Promising” both in terms of talent, and in terms of which kids can benefit the most from this program). But if the school staff does not know who you are, they will not do this. And without that personal request from a teacher, most kids will not participate in a program they have never heard of.

Participation of school staff is also critical for keeping programs realistic. There is often a mis-match between what volunteers want to provide, and what kids and schools need. Volunteers are typically older, but high school students relate better to younger individuals (who may not think they are ready to mentor anyone). Volunteers prefer evening events, after work is over. Students, particularly in low-income communities, may have trouble attending events outside of school hours. Many have to pick up younger siblings from school, and some have after-school jobs. Volunteers often want to teach some advanced engineering concept relating to their career, but teachers sometimes just need someone to make the connection in students’ minds between learning basic math in school and getting a job in the real world. And sometimes schools DO need someone to teach something interesting and different, like showing that calculus is not useless, but can actually keep bridges from falling down. Always listen to find out what is needed.

Pay attention. Have Job Coaches ask kids what they are doing, especially with a new program. During its first expansion year, SInC learned that one employer was driving their intern to a worksite 80 miles away each day. Another kid needed work boots for a worksite, and did not know to ask for reimbursement. Also, every state has labor laws for kids under 18 (usually involving 30-minute breaks). Keeping the internship to 4-hours a day removes this problem, but self-funded employers hiring kids for longer than that should be made aware of this issue.