

# “EDI-ships” to support professional preparation and diversity efforts in STEM

## A proposal from the Committee for Evolutionary Biology (CEB)

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### THE IDEA (what & why)

To advance equity, diversity, and inclusion (EDI) within STEM units of the University, and to support professional preparation in EDI for all of our students with additional benefits to both the campus and larger community, we propose that the BSD establish two models of quarterly training and effort – “EDI-ships” -- and that BSD also maintains its small-grants fund to recognize and support EDI effort not fitting a quarterly model. Many graduate students are already engaged, both on-campus and off, with great dedication, fueled by personal commitment to closing the equity gap (Table 1). EDI effort builds many of the same skills as TA-ships that are important to modern scientific careers, such as communication, pedagogical approaches, mentoring, and community engagement. Moreover, EDI training and experience is now expected by most employers, both academic and otherwise, and is often a key component of highly-competitive doctoral and post-doctoral fellowships in STEM. However, owing to traditional views of what constitutes adequate training in STEM, EDI effort by graduate students at UChicago has generally been regarded as less essential for professional development, thus receiving uneven support and mentoring. Students’ EDI efforts are also usually disconnected from TA-ships and associated financial aid and invisible to faculty, suggesting lack of value.

We propose to improve this situation via three pathways, anticipating that STEM units will tailor the mix to their constraints and cultures. These models will provide a formal process of professionalization for students. To be appropriate as an EDI-ship, the quarter-length or multi-quarter endeavor would entail clear duties (comparable in magnitude to those for the TA and RA positions they might supplant), training and experience in stated skills, and an end-of-quarter evaluation of the outcomes, both for the trainee and for recipients of the trainee’s effort.

1. **Establish an EDI-fellowship** program to formally train the next generation of leaders to be EDI-competent, supporting an approved student for a **≥2 quarters-long program of structured training, mentoring, and practice.** EDI professionals believe that a multi-quarter commitment is needed for an inexperienced student to learn and be able to apply the necessary skills; this model is also most appropriate for EDI efforts extending beyond a single quarter. Such fellowships could resemble a fellowship program being developed by the PSD EDI Office that involves “shadowing” professionals, training/ reading, and a field application, similar to the goals of UChicago’s Center for Teaching (CCT) fellows and of full-year diversity fellowships offered at other institutions (Table 2). MyChoice currently offers structured but unpaid internships for course credit, some with an EDI focus.
2. **Establish an EDI-assistantship** program to support students to deliver EDI activities to UChicago and/or the Chicagoland community, modeled on TA-ships: i.e., a single quarter of weekly effort, mentored by EDI-qualified faculty or staff, with an end-of-quarter evaluation. This model would be for **(a) students already involved in EDI, (b) those who have been trained here** (e.g., via an EDI-fellowship or courses now under development), or **(c) those working directly with an EDI-professional,** e.g. to develop a new program. It provides the flexibility that students need to accommodate a mix of TA-ships, RA-ships, and EDI-ships within a single academic year. A BSD student would be permitted to substitute an EDI-assistantship for one of the two TA quarters required for their degree. Students could also undertake additional EDI-ships if approved: as with TA-ships, there would be no strict upper limit.
3. **Establish a separate EDI-fund** to support students’ **highly committed EDI efforts outside a quarterly EDI-ship model.** The BSD and PSD diversity offices already administer a small grants program for

approved EDI projects, which currently reimburses travel and other expenses, but no funds that go directly to students. Going forward, this model needs to reconcile the desire of students for financial recognition of their effort and, on the other hand, concerns regarding (a) monetizing social-justice efforts (which are expected to some degree of every citizen) and (b) imperiling student eligibility for many federal traineeships and fellowships.

All three models would provide recognition, experience, and financial support for students who are active in and/or want greater engagement in diversity and anti-racism initiatives, and, importantly, would professionalize EDI training of our students, thus addressing both pedagogic and equity gaps. Having three models provides flexibility to add EDI training and experience without increasing demands on student time, given that both kinds of EDI-ships – *assistantships* and *fellowships* -- would be equivalent to TA-ships and RA-ships as a means of quarterly training. Significant EDI effort – often an exceptionally rewarding and grounding experience -- would thus no longer be an undervalued component of students’ academic growth, but rather would become an important part of their progress and professional development. Establishing formal EDI-ships and EDI-funds also underscores the value that UChicago places on such efforts.

Now is the time to broaden the opportunities and training for STEM graduate students to take on these crucial roles. The importance of diversity and anti-racism efforts has long been recognized but, although some successes are seen, the results have fallen short. These goals cannot be accomplished by trade-offs with other forms of graduate student support and training, but will instead require additional investment. By recognizing the value of such work via EDI-ships and other funds, UChicago can create an environment that actively supports graduate student participation in improving diversity and inclusion in our community, and in developing critical skills and experience needed for almost any career.

#### **POTENTIAL FOCI FOR EDI-SHIPS**

We envisage three functional areas where EDI-ships might focus, formalizing student energy and passion and catalyzing UChicago’s progress:

- (a) **Pedagogy** for developing and promoting more inclusive modes of teaching and mentoring.
- (b) **Programming** to lead EDI activities, both on-campus and off, such as anti-racism workshops, recruitment and retention efforts, and teaching off-campus in underserved schools.
- (c) **Research** into new ways to evolve the field, developing novel EDI approaches within STEM.

Our overall vision is for a STEM-wide EDI-ship program, and that the foci above, the models (one quarter versus multi-quarter), and the number of EDI-ships will evolve as the program develops in response to student, staff, and faculty ideas and other opportunities. However, to ensure success of a permanent program, we propose a staged implementation, initiated in BSD. We propose that BSD start in Winter 2021 with two EDI-ships, with an initial preference to Darwinian Cluster students (see reasons below). Their immediate goals would be to (1) craft an initial set of 10-week EDI-ships for BSD, as exemplars of what students might apply for, and (2) advance the planning of an anti-racism course for Darwinian Cluster students, with a target launch in Spring 2021. Both of these inaugural EDI-ship students would be under the supervision of BSD Director of Diversity Initiatives Tobias Spears and would liaise with the BSD Diversity Committee and, likely, counterpart staff and groups in PSD. These two EDI-assistants would gather information on what has already worked here and elsewhere, and synthesize how it might be feasibly adapted or applied to STEM at UChicago. In crafting the potential EDI-ships (goal 1 above), the students would build on the structure that we have already developed here. Students would articulate the goals of each quarter-long effort, the duties and responsibilities of the student, and the training involved, including the skills and experiences to be acquired. Evaluation of the success of the quarter would include both what was learned by the student and gained by others from that effort. For the anti-

racism course (goal 2), the inaugural EDI-ships would also build on the progress of Summer 2020 volunteers, permitting it to be developed into a form that could be trialed in Spring 2021.

We stress the importance of student involvement in the early crafting of EDI-ships. As an optional program, students must “buy in” to these more formal efforts, and part of their training as academics and professionals is learning to design new programs, with the competing concerns and tradeoffs (see Appendix for those considered here). Moreover, with students having spurred this initiative, it should not now become unduly top-down moving forward.

**Examples of effort within an EDI-ship structure:** We expect that some quarter-long EDI-ships could be heavily focused on teaching, much like TA-ships. For example, the BSD Dean of Students already has considerable flexibility in accepting, as a regular TA-ship, an approved outreach experience that involves significant teaching experience by the student (e.g., the Clubes de Ciencia-México, funded by UChicago STEMout, which involved a graduate student participating in curriculum design and implementation during a week-long course for high school students in Oaxaca, México). As another example, a student might serve as the EDI-qualified TA for an anti-racism course that would be comparable to the existing Ethics courses required of grad students. An EDI-ship might also handle EDI discussions and training of several lab groups, or of several concurrently-running undergraduate courses – much as some universities have a TA dedicated to science-writing. Multi-quarter EDI-*fellowships*, on the other hand, have clearer analogs in diversity fellowships at other institutions (Table 2), and are in fact already launched here in PSD, albeit with only one per year. We thus urge that the EDI-ships designed by the inaugural student trainees focus on one-quarter assignments and, for ease of supervision and evaluation, focus on campus.

**Existing resources, program development, & future opportunities:** There are many ideas and interested and capable individuals on-campus to draw on for designing EDI-ships, and NIH, NSF, and other agencies have recommendations both for pedagogy and programming. Many BSD PIs have already been running outreach and mentoring efforts, only vaguely or partially known to divisional offices, and some PIs in PSD are already incorporating significant EDI efforts into their grant proposals. Further, a number of STEM leaders here have already been thinking about how to professionalize EDI. This initiative could in fact be a way to better integrate activities and units across divisional and other boundaries.

We see EDI-ships expanding from BSD to PSD, with many opportunities for interactions and shared efforts between these two STEM divisions and, of course, other units. Our drafting committee interviewed Deans of Students and EDI professionals of both divisions, and this proposal also reflects input from weekly “all-CEB” meetings of students, staff, and faculty of CEB, which itself draws on multiple units within BSD, PSD, other divisions of the University, and other institutions, including the Field Museum and the Lincoln Park Zoo that have their own EDI programs. Based on insights and advice from these discussions, we present a vetted and feasible framework, now ready for the design of specific EDI-ships.

## **ACKNOWLEDGING THE GRASSROOTS INITIATIVE**

CEB students motivated this initiative. Their passionate and focused response in the wake of this summer’s events quickly attracted CEB faculty enthusiasm and support for a proposal to pursue tangible positive outcomes. The focus was not strictly on-campus, but *was* on academia and on STEM: namely, with the broader goals of improving conditions for fellow students and faculty while here, for training to become better agents going forward, and for improving the pipeline of BIPOC students both arriving here and leaving for post-docs and other positions. We believe that this grassroots student- and faculty-driven initiative for concrete actions, guided by existing on-campus EDI knowledge, should be honored in activating an EDI-ship program. CEB is already an effective bridge between STEM divisions on campus – it is especially fitting that this group was the instigator of the initiative and that it should play a role in its initial implementation.

**Value of professional training.** Although EDI-ships would be optional, demonstrated EDI knowledge and experience is increasingly important for all career paths – direct student engagement and training via EDI-ships is a tangible way to improve the pipeline. We expect an increasingly high baseline expectation of EDI professionalization in new hires everywhere, which our proposed EDI-ships would promote. Most universities already require a diversity statement as well as research and teaching statements from faculty applicants – and programs will increasingly treat EDI skills as essential rather than ‘bonus’ attributes of new colleagues (see Deans’ roundtable in UWashington’s July 2020 webinar “Experiences of Black STEM in the Ivory”, where UChicago’s Dr. Matt Tirrell was a participant; and plenary talk by Dr. Joseph Graves at the 2020 annual meeting of the Society for the Study of Evolution). Diversity experience is already judged especially closely for jobs entailing significant teaching (e.g., colleges, schools), public education and outreach (e.g., museums, non-profits), employee training and client relationships (e.g., private and publicly-held companies), and government (e.g., research, regulatory, and natural resource agencies).

Submitted by CEB’s EDI-ship Drafting Committee (August 25, 2020):

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**Table 1. Snapshot of EDI efforts by UChicago graduate students in Fall 2016, both on- and off-campus.**

**Table 2. Examples of EDI-fellowships already running at peer institutions.**

**Appendix. Challenges, concerns, and tradeoffs raised during discussions.**

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## APPENDIX: CHALLENGES, CONCERNS, AND TRADEOFFS RAISED DURING DISCUSSIONS

**Open to all and optional for all.** No student would be urged, much less required, to undertake an EDI-ship unless it interested them; by the same token, a unit should make every effort to identify or otherwise support an EDI-ship for a student strongly wanting such experience. BIPOC students may have the most to bring to these roles – ideas, experience, empathy -- but they should not be made to feel responsible for shouldering diversity and anti-racism efforts. Moreover, BIPOC students and faculty do not automatically have EDI skills or “know the answers”. Like TA-ships and most fellowships, students would have to apply – that is, self-select, or be encouraged to participate.

**Variety of efforts possible, but recommend prioritizing on-campus activities initially,** to ease supervision, evaluation, and logistics.

A majority of current grad-student EDI activities already focus on the K-12 STEM pipeline, i.e. what would typically be called “outreach”, with about one third of events held on-campus (Table 1). These activities largely target students of color, girls, and those who would be first-generation college students. EDI-ships could support such efforts, but we stress that they should be conceived broadly to also include programs focused on undergraduates, graduate students, and post-docs already on campus. Moreover, and at these academic levels especially, EDI efforts can tackle more difficult anti-racism and inequality issues, and can expand into pedagogy in the sense used above. As mentioned, some EDI-ships could be TA-like, occurring in STEM classrooms. An *EDI-fellowship*, for example, might culminate in leading or co-leading workshops or discussion sessions for lab groups on anti-racism or on the persistence of inequity, with the aim that those lab PIs would then ensure that those ideals became a reality. An *EDI-assistant* might, with training, take on doing the same for a series of concurrent courses within a major, much as we might designate one TA to focus on providing students with feedback and training in science writing.

That said, many under-represented groups – at all academic stages -- are best reached off-campus, and so a permanent program should include a mix of on- and off-campus efforts. BSD’s Committee on TAs already approves students to teach off-campus: our students find it immensely rewarding, as do host teachers and students. Such efforts should remain a significant option within an EDI-ship program.

The inaugural EDI-ships students, in discussion with UChicago’s wealth of EDI professionals and advisors, would brainstorm implementing this broad vision, and would ensure that EDI-ships draw effectively upon student interests and talents. Crafting an initial set of 1-quarter EDI-ships would be the aim of one of the two inaugural EDI-ships for BSD (Winter Quarter 2021), with the other focused on the anti-racism course, although we expect the two students to share ideas and co-meet with mentors. For the permanent program of EDI-ships conceived from this process, we stress only that they should not be limited to programming, nor to the kinds of off-campus and outreach activities that first come to mind.

**Adapting to the different financial-aid models that exist for graduate students in BSD and PSD.** We initially conceived of EDI-ships as analogs of TA-ships and RA-ships as these are structured in the PSD. There, graduate students are supported, quarter by quarter, by some mix of TA-ships (College funds, transferred to the Division/Department), RA-ships (PI grants, which are also charged for tuition and benefits), and departmental funds. The only exceptions are students with an extramural fellowship (e.g. from NSF, EPA, etc.), which at 2 or 3 years do not cover the full time needed to complete the PhD. TA-ships entail classroom-related duties not to exceed 20 h/week (typically 10-15 hr; see visa concerns below), supervised by the faculty instructor; each department handles the distribution of TA-ships to its courses and of students to those TA-ships. *EDI-assistantships* could thus simply become another means of quarterly support and training in the PSD, with the only issues being that (a) the student wishes to do so,

(b) the PI and/or dissertation committee approves it, and (c) an EDI-qualified person is identified to mentor and evaluate it. EDI-fellowships of  $\geq 2$  quarters could also provide fungible quarterly stipends for PSD students, regardless of the source of those funds (PSD, another division, central admin/donor).

In contrast, BSD academic departments provide a quarterly stipend and tuition support to every matriculating graduate student for the duration of their degree, with funds derived from some mix of research grants to individual PIs, overhead (DU “Divisional Unendowed” funds), and NIH and other federal “training grants”, which provide stipend and tuition support for entire *programs* (see “concern with traineeship eligibility” below); students with extramural fellowships are supported by them for that 2-3 year duration, and then switch to PI, DU, or training grant support. In exchange for this full-time support for their dissertation research and training, each BSD student is, in response to expectations from NIH, required to TA for two quarters during their residence, for which they receive course credit; the TA Training Course can be used in place of one quarter of classroom experience. Students supported by DU funds are required, in addition, to TA for one quarter per year (for which they also receive course credit). With the approval of their PI/PhD committee, a student can TA for additional quarters beyond those required for the BSD degree or DU-support, and for this they receive a supplement of \$1500-\$1800 per quarter.

To accommodate EDI-ships within BSD’s existing financial structure, we propose that BSD students be permitted to: (1) substitute an EDI-assistantship for one of their two quarters of required TA-ships; (2) undertake, with approval, additional quarters of EDI-ship as those opportunities become available, i.e. no strict limit to EDI-ships, just as there are none on additional TA-ships beyond those required; and (3) receive the same supplemental stipend for EDI-ships as they do for TA-ships, assuming that resources exist (just as ‘extra’ TAships depend upon a need for TA’s beyond the population of students who are still fulfilling their degree and DU requirements). These recommendations – and most importantly, the idea of a basic fungibility of a EDI-ship with one required TAship -- are intended to underscore the importance of EDI-training to the student’s academic experience, to their professional development, and to the larger benefit of UChicago and the greater Chicagoland community (see “concern with ‘monetizing’ EDI” below).

**Faculty concern about imperiling student eligibility for federal traineeships.** Training grants, typically written by a consortium of faculty, provide block funding of a program (e.g., “evolutionary biology”) rather than a single lab and are mostly from NIH, NSF, and the US Dept. of Education (e.g., sporadic GAANN grant competitions). These  $\geq$ \$1 M grants provide stipends and tuition for multiple students for 3-5 years. Training grants are supervised by a faculty steering committee and overseen by staff at the dean’s level in order to insure strict adherence to agency rules on student effort and financial eligibility. Trainees are permitted and are now encouraged to devote 20-25% of their 40 hr/wk of training to professional development, which can include EDI efforts, but students cannot receive any additional funds from the University or from outside the University during any quarter of traineeship support (including direct family support, such as an employed spouse). These financial restrictions extend to intramural and extramural research funds that the student might apply for: these funds cannot go directly to the student (“into their pocket”) but must be handled through a University account (e.g., disbursed directly to vendors, or reimbursed on presentation of receipts).

Given the importance of training grants to running a graduate academic program, both faculty and administrations are always concerned that a student’s eligibility to rotate into a trainee position during a given academic year not be jeopardized. Divisional administrators will thus need to develop a protocol that permits students to undertake EDI-ships (models 1 and 2), much as they undertake required and optional TA-ships. We recommend that EDI-funds (model 3) remain limited to the reimbursement of expenses.

**Supervision and evaluation of EDI-ship students.** This concern is foremost among EDI professionals and also ranks highly for Deans of Students and faculty: all want the experience to be valuable both to the graduate student and to recipients. We thus reiterate that, analogous to TAs who are mentored by a faculty member with both knowledge of the course subject matter and teaching experience, an EDI-ship student would be mentored \*only by a faculty or staff member qualified in EDI. EDI effort without an explicit training component, and without an EDI-qualified supervisor, would not clear this bar.

At present, the largest concern in both BSD and PSD for actuating EDI-ships is the limited number of EDI professionals to supervise EDI-ships and the scarcity of EDI-qualified *faculty* who could step into this role. In the PSD, a training program for faculty is now under development to create the platform needed for a sustainable program of student EDI-ships, and a second D&I professional has recently been hired (Associate Dean Hannah Lawrence, formerly involved in BSD D&I development). In BSD, an additional full FTE that might be devoted to EDI initiatives such as this is under discussion for 2020-21 (there is presently an unfilled 50% FTE in the Eyes on Cancer program).

We anticipate that mentorship of EDI-ships would at least initially fall largely upon EDI professionals in the appropriate divisional offices, but expect that this team would enlarge to include interested faculty and that some EDI-ships might well have a mentor in the Provost's Office or the SSD, e.g. for EDI-ships focused on pedagogy. As the launcher of this EDI-ship initiative, BSD thus might assume a significant role of coordination among programs as much as EDI-ship mentoring itself. We note that diversity fellowships at other institutions, which are year-long and include training, are all mentored by EDI professionals in the graduate-school or university-level EDI office (Table 2).

To mitigate the present scarcity of EDI-qualified supervisors, we recommend granting and aggregating multiple EDI-ships per quarter so that students can do their training as a group. This arrangement would have the additional benefits of helping to coordinate programs and of promoting the sharing of solutions and networking – benefits that would accrue even when supervisors are plentiful. Weekly meetings of EDI fellows are common at other institutions for these reasons.

**Approval of the design of an EDI-ship and selection of students.** We look ahead to proposals and ideas submitted by students, staff, and faculty, in various combinations, especially as more individuals on campus have EDI training or experience. However, EDI-professionals would be ultimately responsible for design approval, and would be best at evaluating completed efforts. If the program broadens to all-STEM, liaising between divisional EDI offices will become even more important, perhaps becoming a joint-committee; the Provosts Office might be appropriate for some EDI-ships, particularly if central funding is developed.

BSD's MyChoice internship program provides a useful model for matching students and EDI opportunities, and for general oversight. These internships provide course credit but no stipend; post-docs receive a certificate, to formalize their experience. Opportunities – about 2/3 are with businesses and non-profits off-campus -- are advertised and students apply; the host interviews applicants and chooses one, whose PI gives approval; the intern and host then design and co-sign an agreement of the goals of the effort (typically 10h/week) and the responsibilities of the intern, which need to be substantive, meaningful, and realistic; evaluations at the end come from both host and student. The program has been very successful, owing in part to having a full-time Director (Abby Stayart) for oversight and general mentoring; the evaluations are submitted to and read by the BSD Dean of Students. MyChoice has a council of four persons (three of them faculty) who set up the internships, i.e. solicit groups and individuals to host interns and then assist hosts to devise goals and duties. While the staff Director of MyChoice could not mentor EDI-ships, they could advise on what has and has not worked with the MyChoice program.

Within BSD, EDI-ships might similarly require (a) a dedicated EDI professional and (b) a council of faculty and EDI-professionals. We strongly urge that any such council include graduate student members.

This council would also be a way to promote coordination across units including those outside BSD, especially as EDI-ships expand to include off-campus as well as on-campus effort (e.g., coordination with Cheryl Richardson, Maris Garcia, and perhaps the Office of Civic Engagement).

**Value of having both EDI-assistantship and -fellowship models.** This distinction had two motivations. One was the strong belief among EDI professionals that multi-quarter fellowships make the most sense for EDI training because of the necessary time-commitment: the individual has more than 1Q in which to participate in meetings and in reading/study group(s) and shadow professionals, thus gaining the skills and experience that will enable them to lead or co-lead an on- or off-campus effort. Our committee's initial conception of single-quarter EDI-ships that might be fungible with TA-ships was thus insufficient. The second consideration was federal constraints on financial aid to international students, which are increasingly applied to domestic students. Student visas stipulate that, when part of a student's financial aid, the individual commits to  $\leq 20$  hours per week, with no 'averaging' of time across the quarter or year: hours cannot be spread over more than one quarter nor bunched within some portion of a quarter. The University adheres to this requirement closely for TA-ships to protect international students, and many Deans of Students apply the same rules to domestic students; flexibility on hours that used to exist on this requirement no longer exists, even though some websites might still suggest it does.

Single-quarter EDI-Assistantships thus need to be structured closely on TA-ships, including: weekly duties and responsibilities; faculty or other qualified supervision, mentoring, and training; and end-of-quarter evaluations. Others of our committee's original ideas for EDI-ships would, on the other hand, require the flexibility of being EDI-fellowships, which also entail training and evaluation.

**Concern (from faculty) of a shortage of students for TA-ships if an EDI-ship can substitute.** We do not expect that every student will want an EDI-ship and thus we never expect that the number of EDI-ships would rival that of TA-ships: students with RA-ships and extramural fellowships are and will likely remain the largest "drain" on person-power for TA-ships (far more of an issue in BSD than in PSD). Although limited in number, the EDI-ships \*would require additional or distinct funds (from the Division, from donors, from 'central'), because the focus on EDI issues is distinct from that of TA-ships on course content.

**Concern (from faculty) that some PIs might discourage students from taking an EDI-ship.** The potential for push-back from PIs was raised by a distressing number of faculty (not students), driven by concern that an EDI-ship would diminish or imperil research progress by the student (and by their hosting lab). Many federal traineeships, in fact, stipulate that the student focus on research for 40 hours/week to remain eligible. However, NIH and other agencies increasingly have set expectations that students devote 20-25% of that time to career development activities such as EDI. PIs are apparently coming around to realizing that professional development activities other than research per se are necessary for students, as trainees. When problems arise, the standing recommendation is that students discuss career choices – such as EDI-ships – with their entire committee and not just with their advisor/PI. Some additional emphasis on this policy may be needed, and the administration more generally needs to continue impressing upon PIs the necessity of professional development activities, which can include EDI effort.

**Concern (from faculty) that some EDI-ship students might be "too young" to be effective.** For example, if BSD students are permitted to substitute an EDI-ship for one of their two required TA-ships, then they might be only one or two years post-BS when serving in this role. We note that CEB students have generally been discouraged from starting any in-class TA-ships until *after* they have entered candidacy. TAs working directly with undergraduates would thus be in their third-year or later, obviating this concern. In other units, including PSD where many students become TAs immediately upon matriculation,

the EDI-ships might simply be reserved, *a priori*, for students who are post-candidacy. Exceptions would require a formal petition, e.g. pointing to previous experience or other circumstances.

**Concerns (from faculty, EDI professionals) with “monetizing” social justice efforts.** For many reviewers, the EDI-funds (model 3) was most concerning if existing programs (in BSD and PSD) were to expand to include direct financial compensation. Some degree of participation in outreach and diversity efforts, either on- or off-campus, is simply part of being a University citizen. However, from the students’ perspective, some past efforts – for the common good, but on their own time and with approval and even encouragement of faculty – have ended up entailing a huge amount of time and energy. Student requests to expand the existing small-grants programs to include some form of compensation for *major* efforts is thus not cynical, but pragmatic – despite the personal satisfaction and (occasionally public) thanks these students receive, a formal gesture of appreciation from our institution seems called for (e.g., a “gift of time” by having some other effort waived; a financial award or reward).

Based on our interviews, retrospective compensation will not be feasible. We believe, however, that EDI-ships could resolve these tensions and, at the same time, provide a level of mentoring that decreases the toll on students, which includes the sense that EDI work is undervalued. For example, a student – or faculty or staff member, or any combination of these – might propose an EDI-ship focused on a project, with a designated mentor, providing the student with clear access to advice along the way; this could have the additional benefits of making a student’s effort more efficient and, perhaps, more effective. We thus, on balance, believe that the EDI-funds (model 3) be preserved in their current nascent form within BSD (and PSD), namely for reimbursement of expenses rather than any financial recompense toward time devoted. This restriction would also avoid undermining student eligibility for traineeships (see above).

Faculty and EDI professionals also voiced concerns that EDI-ships themselves might monetize social justice efforts. Our proposal that EDI-ships be designed, supervised, and evaluated by EDI-qualified professionals, and that only EDI offices would have authority to approve them, seems to allay this concern. These EDI activities would moreover entail formal training not seen in *ad hoc* lab-focused mentoring. To underscore, not every EDI effort, or mentoring, or off-campus teaching would rise to the level of a financially-supported EDI-ship; and every EDI-ship would entail supervised training and experience, thus contributing substantively to professionalization.

**Concern (from students) whether students already doing EDI efforts would be recognized, or only students new to EDI, or both.** The short answer from EDI professionals is “both, probably”, as described above. Students – both experienced and new-to-EDI -- would have access to support via the EDI-funds (which already exist in both BSD and PSD; model 3), and would be encouraged to apply for EDI-*fellowships* (model 1; including existing EDI-focused MyChoice internships) and to apply for, and propose new ideas for, quarter-length EDI-*assistantships* (model 2). Both kinds of EDI-ships explicitly entail training to advance students’ professional skills, regardless of where those now stand.

We also stress that all three modes would be optional, recognizing that some students do not want an EDI-ship level of engagement or might wish their efforts to remain independent. EDI-ships thus would not in any way supplant what students are already doing on a volunteer basis. Those efforts, which reflect great commitment and considerable time in many cases, and which can be highly rewarding personally for all parties, are generally considered to be part of the student process, enriching their experience like other non-classroom activities. Some current EDI efforts might make effective EDI-ships: they could be proposed as such, with the baseline expectations of EDI-ships in mind. Others, without becoming formal EDI-ships, might still benefit from collaborating with EDI professionals.

Many fruitful interactions between students and EDI-professionals of course already exist in STEM. For example, the PSD EDI Office coordinates student peer-mentoring at the divisional scale as well

as within units, with 150-200 participants each year. That entirely volunteer effort has tremendously enhanced student experience at the University. BSD Darwinian Cluster students have launched their own peer-to-peer mentoring for incoming grad students (Keystone Community Initiative), which was prompted by the lack of community that many students felt. More than 20 current students have signed up to mentor first years in their respective programs, which includes participating in mandatory training and reflection discussions. Other BSD units might learn from this success, shifting from largely lab-centric efforts. As a final example, a CEB-student initiative launched in Summer 2020 to develop an anti-racism course required of all Darwinian students is now benefiting from conversations with BSD D&I Initiatives Director Tobias Spears, who was already developing a workshop. Our proposal to assign an inaugural EDI-ship to this project should significantly improve a launch during the 2020-21 academic year, and having students so closely engaged with the planning benefits everyone.

END

Table 1. Snapshot of volunteer outreach efforts by U Chicago students (compiled as of 2016, by Joel Mercado-Diaz)

Program name	Description	Website
<b>ON CAMPUS</b>		
Kipling Elementary School Outreach Day	Kipling Elementary School Outreach day occurs every Spring quarter. University of Chicago graduate students host lab tours and scientific demonstrations for selected 4th and 5th graders from Rudyard Kipling Elementary School. Graduate students have previously showcased research incorporating 3D reconstructions of fossils, shark development, and diabetes. Visiting students also participate in experimental techniques such as PCR, and DNA isolation.	<a href="http://evbio.uchicago.edu/training/outreach/kipling_elementary_school_outreach_day/">http://evbio.uchicago.edu/training/outreach/kipling_elementary_school_outreach_day/</a>
Brains!	a workshop run by Stephanie Palmer every December where a bunch of ~12 year olds from South Side schools go and learn about neuroscience and then take some electrophysiology measurements on roaches and on themselves. It is a one-day thing and they always need a LOT of volunteers to help students in the practicals (they take about 100 students)	Stephanie Palmer: sepalmer@uchicago.edu
Lectures for the Summer Institute for the Gifted	A summer school that the university holds for 8-10 year olds, where they take classes in a bunch of subjects. In the past, some grad students have given lectures in biology.	<a href="http://www.giftedstudy.org/residential/chicago/">http://www.giftedstudy.org/residential/chicago/</a>
Splash!	Splash is our one-day spring program held during the fifth week of Spring quarter. High school students from all over Chicago (and beyond!) come to the UChicago campus to take short classes, in all different subject areas, designed and taught by UChicago students. While most of our teachers are UChicago undergraduates, graduate students (or professors, or anyone else) are certainly welcome to teach too. Teaching at Splash is a very small time commitment. You can teach as little as one hour, and attend a short training session in advance of the program. (We have seven class hours for Splash, so you can go all out and teach seven classes if you so choose. Or teach for our five-week program, Cascade, too!) Even teaching several different classes is substantially less work than most commitments at this University. All we ask is that you commit firmly to teaching if you sign up, and that you bring as much passion and energy to designing and teaching your class(es) as you know how.	<a href="https://splashchicago.learningu.org/teach/index.html">https://splashchicago.learningu.org/teach/index.html</a>
Cascade!	Cascade is our five-week program, now held Winter quarters on Tuesdays, 4th through 8th weeks. This year, Cascade will run Tuesdays from January 26 to February 23, 4:45 - 7:30. High school students from all over Chicago come to the UChicago campus to take five-week classes in all different subject areas, designed and taught by UChicago students. While most of our teachers are UChicago undergraduates, graduate students (or professors, or anyone else) are certainly welcome to teach too. Teaching at Cascade is a more substantial time commitment than teaching at Splash, our one-day program in the fall. There are fewer classes than at Splash, but they go into more depth. We work with teachers extensively to plan each class and make sure that all the classes offered are top notch. While many of our classes are taught by single teachers, we also encourage co-teaching for Cascade because it allows teachers to share the considerable yet highly rewarding work of planning classes and teaching students.	<a href="https://splashchicago.learningu.org/teach/index.html">https://splashchicago.learningu.org/teach/index.html</a>
Droplet!	Droplet is our one-day Fall program. High school students are invited to the UChicago campus to take short classes, in all different subject areas, designed and taught by UChicago students. While most of our teachers are UChicago undergraduates, graduate students (or professors, or anyone else) are certainly welcome to teach too. Teaching at Droplet is a very small time commitment. You can teach as little as one hour, or teach classes for all three of our class hours! All we ask is that you commit firmly to teaching if you sign up, and that you bring as much passion and energy to designing and teaching your class(es) as you know how.	<a href="https://splashchicago.learningu.org/teach/index.html">https://splashchicago.learningu.org/teach/index.html</a>
Sisters4Science Visiting Scientist	Project Exploration's Sisters4Science (S4S) is an afterschool program for middle and high school urban girls of color. Designed to get girls interested in science, keep girls interested in science, and equip girls with skills and experiences that enable them to pursue science, S4S creates a science-rich learning environment that puts girls at the center.	<a href="http://www.projectexploration.org/wh-at-we-do/sisters4science/volunteer@projectexplortion.org">http://www.projectexploration.org/wh-at-we-do/sisters4science/volunteer@projectexplortion.org</a>
UChicago Upward Bound	University of Chicago Upward Bound is operated by the Office of Special Programs-College Prep on the University's Hyde Park campus. We provide a free year-round program after-school from October through May and a six week summer academy. The goal of the program is to assist participants to prepare for and complete high school and a post-secondary degree. Our participants reside on the South Side of Chicago and attend one of four target high schools: Dyett, Hyde Park, Hirsch, and Phillips High School or reside in one of four target communities: Douglas, Greater Grand Crossing, Washington Park or Woodlawn	<a href="https://osp-cp.uchicago.edu/page/upward-bound">https://osp-cp.uchicago.edu/page/upward-bound</a>

OFF CAMPUS		
Universidad Popular Youth Programs	Science Workshops are brought to students (3rd to 8th grade) enrolled in the Universidad Popular Youth Program in Little Village, a neighborhood in Chicago. Students in the program receive monthly one hour workshops that cover topics ranging from microbes and their role in ecosystems, lichens and their use as bioindicators, bird biodiversity in urban ecosystems, food webs and energy cycles, and embryonic development in zebrafish. These workshops were initiated by graduate students in the Multicultural Graduate Community at the University of Chicago, but all students across the university are welcome to lead a workshop	<a href="http://www.universidadpopular.us/about.html">http://www.universidadpopular.us/about.html</a>
Expanding Your Horizons	Expanding Your Horizons (EYH) is a one-day symposium held during the spring break for middle school girls showing them the exciting and diverse experiences science, technology, engineering and math (STEM) careers have to offer. At the symposium, the girls can pick from a series of hands-on workshops to attend, including topics such as food science, biomedical engineering, and particle physics. The workshops are led by female professionals from a wide variety of STEM careers, including Committee on Evolutionary Biology graduate students! The event is organized by graduate and undergraduate students from University of Chicago, University of Illinois-Chicago and other universities in the Chicago area, as well as other STEM professionals.	<a href="https://sites.google.com/site/eyhchicago/home">https://sites.google.com/site/eyhchicago/home</a>
Strive Tutoring	a non-profit in Hyde Park that provides free tutoring services for students in grades 1-12 who have limited educational and financial resources. This involves volunteer, weekly 1-on-1 tutoring in math, science, writing, etc., as well as other forms of social development.	<a href="http://www.strivetutoring.org/">http://www.strivetutoring.org/</a>
Writing or math tutor for Posse Foundation	The Posse Foundation identifies, recruits, and trains student leaders from public high schools to form multicultural teams called "Posses" of 10 to 12 Posse Scholars. These teams are then prepared, through an eight-month training Program, for enrollment at universities nationwide to pursue their academics and to help promote cross-cultural communication on college campuses.	<a href="mailto:chicago@possefoundation.org">chicago@possefoundation.org</a>
NeurOutreach	Lead hands-on neuroscience workshops for K-12 students	Stephanie Palmer: <a href="mailto:sepalmer@uchicago.edu">sepalmer@uchicago.edu</a>
Girls Do Hack	Girls Do Hack is a one-day event designed to inspire and empower young women to consider STEM careers. Be a mentor for 2-3 middle or high school girls during a day of STEM modules at Adler Planetarium	<a href="http://www.adlerplanetarium.org/events/girls-do-hack-2016-11-19/">http://www.adlerplanetarium.org/events/girls-do-hack-2016-11-19/</a>
UChicago Science Olympiad	Science Olympiad is a national competition for middle and high schoolers where they compete in 23 different STEM "events". UChicago Science Olympiad aims to volunteer at nearby competitions, enrich local schools through the Science Olympiad program, and host our own invitational in 2018. There are lots of ways to get involved, even if you didn't do Science Olympiad before! Examples: helping run events at local tournaments/our own invitational, participating in Science Olympiad workshops geared for Chicago Public Schools, maybe showcasing your lab in our future invitational?	<a href="https://www.soinc.org/2017_div_c_events">https://www.soinc.org/2017_div_c_events</a> Stephanie Sang: <a href="mailto:stephaniesang@uchicago.edu">stephaniesang@uchicago.edu</a>
Life Long Learning Series	Science outreach program for older adults run by Randy Landsberg. They have a training session two or three times a year. You learn how to work with older adults, they help you make sure your talk is at an appropriate level and engaging, and then they figure out when/where to have you speak according to your availability. These talks are at public venues throughout the Chicago area.	Rondy Landsber: <a href="mailto:randy@odjob.uchicago.edu">randy@odjob.uchicago.edu</a>
mentor for SPARK	The purpose of SPARK is to provide an immersive summer internship experience for exceptional high school students interested in pursuing careers related to STEM (Science, Technology, Engineering, Math) research. Each student is assigned to job-shadow a local practicing professional, participate in the educational programs offered by his/her scientific/research organization, and work collaboratively with the mentor on a problem or experiment developed by the mentor and the student. Selected students will participate in these internships during the summers prior to their junior or senior years	<a href="http://www.d125.org/academic/career-exploration/spark">http://www.d125.org/academic/career-exploration/spark</a> Brett Erdmann: <a href="mailto:berdmann@d125.org">berdmann@d125.org</a>
Girls Empowered by Math and Science (GEMS)	STEM (Science, Technology, Engineering, & Math) conference for 5 <sup>th</sup> to 8 <sup>th</sup> grade GIRLS and their parents. The purpose of this conference is to educate girls about careers in STEM, and introduce girls to female role models from industry and the high school. Parents are also invited to attend the conference. There will be a separate program just for parents. The purpose of the parent program is to discuss how to prepare girls for STEM courses in high school, college, and STEM related careers	<a href="https://sites.google.com/a/d219.org/2010gems/">https://sites.google.com/a/d219.org/2010gems/</a>
The Node	The Node is a great website where students and professors can write blog posts about their research and experiences. You can easily create an account and let the Company of Biologists know that you'd like to contribute. They are happy to have volunteers.	<a href="http://thenode.biologists.com/">http://thenode.biologists.com/</a>

After School Matters	After School Matters® provides Chicago high school teens with high quality, out-of-school time opportunities to explore and develop their talents while gaining critical skills for work, college and beyond. Over the past two decades, close to 200,000 teens have participated in our hands-on, project-based after-school and summer programs in the arts, science, sports, technology and communications. Programs take place at locations throughout the city including at Chicago public high schools, community-based organizations and Downtown at the Gallery 37 Center for the Arts.	<a href="http://www.afterschoolmatters.org/">http://www.afterschoolmatters.org/</a>
Argonne Outreach	Argonne National Laboratory is looking for individuals to assist in multiple outreach activities such as judging science fairs, attending STEM nights, speaking to classrooms	Jacque Janney: <a href="mailto:jjanney@anl.gov">jjanney@anl.gov</a>
Girls 4 Science	Girls 4 Science is a nonprofit organization dedicated to exposing girls in Chicago, ages 10-18 years old, to (STEM) science, technology, engineering and math. We focus on developing skills, self-esteem, opportunity awareness, as well as relationship building that will help girls overcome barriers that may prevent them from achieving greater success in STEM careers. Girls 4 Science is Chicago's only all girls science initiative in Chicago for girls 10-18 years of age. The program operates for 6 weeks on Saturdays from 10 am to 12 pm on a quarterly basis; fall, winter, spring, summer at Olive Harvey Community College, Malcolm X Community College and University of St. Francis in Joliet, IL.	<a href="http://girls4science.org/">http://girls4science.org/</a>
Illinois Science Council	The Illinois Science Council ("ISC") is an independent, volunteer-driven nonprofit organization that engages, educates, and entertains the adult public about science and technology in our everyday lives. We showcase the scientists and research of the Chicago-area institutions and companies that make Chicago our nation's true "City of Science." ISC serves as the science & tech complement to the region's arts & culture offerings. We are inspired and motivated by this quote by Carl Sagan: "We live in a society exquisitely dependent on science and technology in which hardly anyone knows anything about science and technology." It's true, but it's also extremely serious. ISC explores all areas of science and technology but we do it with a fun, non-stuffy approach. We don't care what you've forgotten since you were in school (or never learned in the first place). We keep our "mascots" - Muppets Dr. Bunson Honeydew and Beaker - close by to remind us that science and technology are important, but interesting and fun too! It's all about simply continuing to exercise our sense of curiosity.	<a href="http://www.illinoisscience.org/">http://www.illinoisscience.org/</a>
Neighborhood Schools Program (NSP)	A lot of opportunities through NSP. Neighborhood Schools Program is one of the UChicago's longest-standing community outreach programs. Founded in 1976 as a way for the University to connect to local schools, NSP has grown to partner with 50 schools and community sites and engages more than 350 University student volunteers and employees. NSP welcomes all UChicago students interested in making a difference in local education. The program offers students a number of different roles: tutor, teaching assistant, administrative intern, and technology coordinator. NSP hires students who are work-study eligible (and a limited number of non-work-study students), and has many opportunities for sustained volunteering. NSP offers flexible scheduling, competitive pay, and transportation to sites beyond walking distance from campus.	<a href="https://nsp.uchicago.edu/page/employment">https://nsp.uchicago.edu/page/employment</a>
Project Exploration	Project Exploration is a nonprofit science education and youth development organization that features highly personalized out-of-school-time programs for students in grades 5 – 12. Since 1999, Project Exploration has engaged Chicago Public School students in hands-on experiences with real science and real scientists. Our student-centered approach encourages supportive long-term relationships between students and scientists, and empowers students to become active partners as they learn, choosing topics to study that they find interesting. There are no fees or academic prerequisites, and we recruit students who are inquisitive and ambitious, but who may not be the top students in their school. We believe that the study of science is about challenging assumptions and gaining new insights into the world's inner workings. We empower students to become passionate investigators of the world, compassionate innovators in their community, and intrepid explorers of their own personal landscape by encouraging them to express their ideas and present their own work, resulting in heightened self-confidence, and increased leadership, teamwork and communication skills. They are given the tools to become thoughtful, inquisitive adults.	<a href="http://www.projectexploration.org/">http://www.projectexploration.org/</a>
<b>at The Field Museum</b>		
Dozin' with the Dinos	an overnight program catering to elementary school-aged kids and their families and exposes them to the different exhibits and collections at the museum. You can volunteer for just a workshop (7:00-8:30), and/or a late night activity (9:00-10:30?) or stay the whole night (6:00pm-10:00am?)	<a href="https://www.fieldmuseum.org/at-the-field/programs/dozin-dinos">https://www.fieldmuseum.org/at-the-field/programs/dozin-dinos</a>

Meet a Scientist	On Fridays from 10am to noon, scientists will be out in the Museum sharing the wonders of our collections and highlights of their research. Hear about their work, see real artifacts and specimens from the approximately 30 million objects in The Field Museum's collections, and experience the Museum like never before. Topics will range from birds to insects, from mammals to plants, from pottery to spear points, and more!	<a href="https://www.fieldmuseum.org/at-the-field/programs/meet-scientist">https://www.fieldmuseum.org/at-the-field/programs/meet-scientist</a>
Members' Night	This is the one time each year where Field Museum members have a chance to explore areas normally off limits to the public, talk to scientists and curators, and see parts of our collection that are not on display.	<a href="https://www.fieldmuseum.org/at-the-field/programs/members-nights">https://www.fieldmuseum.org/at-the-field/programs/members-nights</a>
Discovery Squad	Visitors get a peek behind the curtain and learn the inside scoop about the collections in our vaults. Discovery Squad members show visitors real objects from our collection, and answer your questions. Mon., Fri., and Sat. 10am-3pm	<a href="https://www.fieldmuseum.org/at-the-field/programs/discovery-squad">https://www.fieldmuseum.org/at-the-field/programs/discovery-squad</a>
<b>at Museum of Science and Industry</b>		
Science Works Career Fair	Set up a booth at the Museum of Science and Industry's yearly career fair to engage with over students and parents about the career of a research scientist. Happens yearly in October/November, and they love grad students to come.	<a href="http://www.msichicago.org/education/out-of-school-time/science-works/">http://www.msichicago.org/education/out-of-school-time/science-works/</a>
Jr. Science Café	Presentation to the public at the Museum of Science and Industry	<a href="http://www.msichicago.org/education/field-trips/jr-science-cafes/">http://www.msichicago.org/education/field-trips/jr-science-cafes/</a>

Table 2. Programs for EDI training and experience at other institutions. Take homes:

1. Every program is open to all graduate students, instead of operated by division or department
2. All are academic year-long positions and paid lump sums.
3. All students work closely with the university's diversity and inclusion and/or graduate office; all entail mandatory training and supervision from staff within the office
4. Typically, an additional budget exists for programming.

Compiled by Chloe Nash, Aug 4, 2020

Institution	Program	Type	Unit	Eligibility	Duration	Payment	Summary of Responsibilities	Supervision	Training/Evaluation
Harvard University	Diversity and Inclusion Fellowship	Fellowship	Graduate School of Arts and Sciences	2 <sup>nd</sup> year or above	2 semesters (10-15 hours /week)	\$6000	Work with office of diversity, recruitment efforts, event and meeting planning, budget management	Office of Diversity and Minority Affairs	Yes/Unknown
Princeton University	Diversity Fellows Program	Fellowship	Graduate School	Graduate student in good academic standing	Academic Year (20 hours /month)	\$5000	Build community through programming, event planning, and recruiting events. The Diversity Fellow is expected to implement 1-2 programs per month	Associate Dean for Access, Diversity and Inclusion, Diversity and Inclusion Coordinator, and other members of the Diversity and Inclusion team	Yes/Unknown
Yale University	Office for Graduate Student Development and Diversity (OGSDD) Fellow	Fellowship	Graduate School of Arts and Sciences	Graduate student in good academic standing (preference for students in years 2-5)	Academic Year (can be extended up to two years; 5-8/week)	\$5100	Work in the Office for Graduate Student Development and Diversity, collaborate with the Associate Dean, Assistant Director of Diversity, and other Fellows to develop and implement recruitment and retention programs, plan and attend recruitment and orientation events	Office for Graduate Student Development and Diversity	Yes/ A Fellow can be dismissed for conduct which is considered detrimental to the Office for Graduate Student Development and Diversity or for failure to live up to his/her responsibilities as a Fellow. Should a Fellow be dismissed, the payment of his/her honorarium will cease.
MIT	Graduate Community Fellows	Fellowship	Office of Graduate Education	Graduate student in good academic standing	Academic Year (10 hours per week)	\$675 per month	Graduate Community Fellows are a cadre of graduate students who work under the auspices of the Office of Graduate Education on projects and assignments that enhance the life of graduate students in	Office of Graduate Education and partner organizations	Yes/Yes

							unique ways. Each Fellow works on specific assignments and reports to a staff person in the OGE or in a partner organization.		
Brown University	Graduate Community Fellows Program	Fellowship	Graduate School	Graduate student (s) in good academic standing (can apply in pairs)	Academic Year	\$2000 + \$1500 to fund initiatives	Design and implement community-building initiatives for graduate students falling under one of the following areas: Race & Social Justice, International Community, Wellness & Health, Family-Friendly, and Master's Student Community. Students can also propose their own area.	Graduate School	Unknown/Yes
UC Berkeley	Diversity & Community Fellows Program	Fellowship	Office for Graduate Diversity	second year or above	Academic Year (20 hours per month)	\$7500	Critical components of this work will include but are not limited to, supporting an inclusive graduate community and enhancing the cultural, academic, and professional experience of historically underrepresented students (e.g., students of color, low income and first generation college students, and LGBTQ+ students, undocumented students, etc.). Fellows will work across and within academic units to create healthy communities for graduate students	Chief of Staff & Assistant Dean for Diversity and will collaborate with other members of the Office for Graduate Diversity.	Yes/Yes

Harvard: <https://qsas.harvard.edu/diversity/fellow>

Princeton: <https://gradschool.princeton.edu/diversity/student-resources/diversity-fellows-program>

Yale: <https://qsas.yale.edu/diversity/current-students/ogsdd-fellows-program-application>

MIT: <https://oge.mit.edu/community/gcf/>

Brown: <https://www.brown.edu/academics/gradschool/academics-research/professional-development/graduate-community-fellows-program>

UC Berkeley: <https://grad.berkeley.edu/financial/fellowships/office-for-graduate-diversity-diversity-and-community-fellows-program/>