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A #CREATEequity Public Draft

Leveraging a University to Create K20 Local Opportunities to Learn

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Abstract

At CREATE, we've been forging a model for leveraging a university to create K20 Local Opportunities to Learn (LOTL). In this short #CREATEequity Public Draft, we propose that every university can and should be a place where faculty, students and staff help create necessary local opportunities to learn as a basic part of their work; that each university should pay highly skilled staff researchers and practitioners to shepherd such opportunity creation, just as universities pay staff for other essential functions; and that funders can ask and support universities to proactively engage in this work. We invite an ongoing dialogue with colleagues across the country committed similarly to creating local opportunities to learn, so collectively we can better leverage universities for the public good.

Keywords: policy, opportunities, equity, postsecondary access and success, STEM, research-practice partnerships

#CREATEequity Public Drafts are designed to share work in progress at UC San Diego CREATE and prompt dialogue with people doing equity work in education.

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In this short article, we contend that universities are vastly underused engines of potential local opportunity generation. We propose that even (and especially) in a moment of financial strain, U.S. universities can support all who work, study, and/or live on campus to participate in creating necessary *local opportunities to learn* (LOTL). More specifically, we propose that each campus fund a team of education researchers and expert practitioners to help campus faculty, staff, and students in all disciplines to co-create and spread necessary and *equity-oriented* LOTL in K14 schools (kindergarten through community college) and informal learning spaces. By *equity-oriented* LOTL, we mean proactive opportunity creation designed to spread necessary opportunities to individuals and communities least likely to access existing opportunities. We argue that such work benefits people across campus and community, increasing opportunity "K20."

We base our argument on seven years of such work. We offer general principles and specific examples of our equity-oriented LOTL creation. We offer this conversation-starter to invite ongoing dialogue with colleagues engaged in related work across the country.

Positioning a university as a contributor to Local Opportunities to Learn (LOTL)

Scholars and advocates argue that universities should use their resources for the public good (Marginson, 2014; Camhi, 2013) and more specifically for local community benefit (Hatcher et al., 2020; community-wealth.org 2020), as part of universities' focus on "teaching, research, and public service. . . critical to the well-being of our democratic society" (AAU, 2014). As "anchor institutions" that stay local (Porter et al., n.d.), universities already contribute local benefits through employment and stimulation of local commerce (Walshok, 1995), especially when "town and gown" collaborate proactively (Hatcher et al 2020)—even as universities typically pay few taxes locally and often exacerbate local disparities via gentrification (Schneider & Klor de Alva, 2016).

Many campuses contribute LOTL directly through creating local partner schools (Mehan et al. 2010, Quartz et al, 2017) or scholarships for local students; our campus does both (Johnson, 2019). Many campuses also contribute opportunity locally by shaping locally-relevant education policy (e.g., "The Hope Center," n.d.), researching local inequalities for community partners (e.g., Rogers et al., 2011), and funding students to work in local communities (e.g., https://www.brown.edu/academics/college/swearer/about).

Yet too few universities leverage their campuses fully for local learning opportunity production. University faculty often feel most pressured to produce knowledge for national or "global" impact (and indeed, to enable their own possible relocation). Meanwhile, public schools in the backyards of many universities are seriously under-resourced (Darling-Hammond, 2010), short-changing universities' own local communities with a tremendous lost potential in community wealth and well-being.

While universities alone cannot repair systemic local opportunity gaps, we contend that universities can play a far larger role in local opportunity creation with the help of experienced education researchers and practitioners. We propose that universities fund *support teams* of such professionals to help colleagues broaden the local benefits of federal, state, and philanthropic dollars by investing directly in local teaching and learning. We argue that if guided by local communities' needs and by knowledge of education research, shaping locally necessary opportunities to learn strengthens the foundation of the entire community, including the teaching, service, and grant-getting strength of the university. By engaging undergraduate and graduate students, opportunities to learn extend K20. Such work also develops both state and national models.

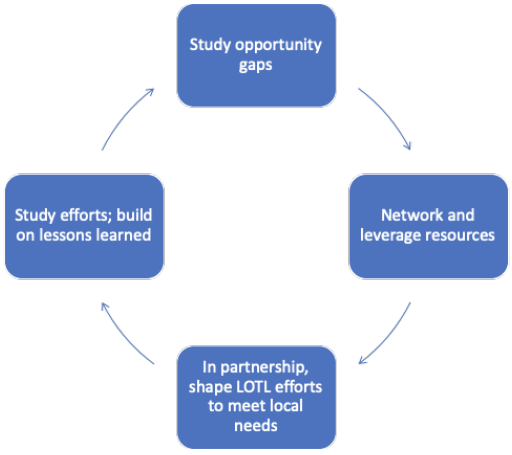
We have done such work for seven years. Since 2013, in a campus effort called the CREATE STEM Success Initiative (CSSI), our campus' Chancellor has invested in a small team of education researchers and practitioners in our equity-focused education Center, including most Authors (Mica Pollock is funded

by a faculty position to direct our Center, and other authors support the CSSI on grants). Our campus-funded CSSI team includes three full-time and several part-time personnel. We know hundreds of K14 partners in our region and work continually to understand the region's educational needs. We collectively have skills in education research, evaluation, and practice, as well as community advocacy and program design and execution. We have backgrounds in educational anthropology, developmental and experimental psychology, education policy, cognitive science, community outreach/engagement, and youth development. Our broader Center brings deep expertise in teaching the subject areas. As "boundary spanners" crossing between university and community (Weerts & Sandmann, 2010), we connect continuously with our large network of local district/school leaders and teachers and informal education providers, including stipended K12 district liaisons who know their districts' needs. As Image 1 shows, we work to identify and develop:

- learning opportunities that local students, educators (K-14 and university), and district leaders need and want;
- resources that university faculty, student organizations, and staff have to offer;
- learning events and sustained efforts to increase LOTL that might benefit community and university people's growth simultaneously;
- people and processes to create the LOTL.

We then use our research skills to study these efforts. Our team also writes our own grants to study programming systematically, to determine efficacy and scalable models.

Image 1: A process for LOTL creation



We work to:

a) help university and local partners collectively leverage university grants, time, expertise, research content, connections, and energy to co-create locally desired K-14 learning opportunities that also support university people's needs;

b) meet with faculty researchers who want help designing broader impact, education, and evaluation plans necessary for grants, and students and campus staff seeking meaningful outreach participation and partners;

c) connect K-14 partners to university partners to together conceptualize, design, and create locally necessary learning opportunities for students and their teachers;

d)) help campus and community partners conduct research to determine which LOTL efforts are more or less beneficial, and for whom.

We call this work creating LOTL K20, because people on and off campus get opportunities to learn and because critically needed resources are created for both community and campus.

Fundamentally, our work pursues *equity* oriented LOTL creation.

Organizing principle: Designing LOTL for *equity*

Early in our initiative, an Engineering faculty member admitted of prior efforts that "we have no idea if our outreach is helping in any way—just that maybe it's better to do it than not do it." In our initiative, our goal is producing *necessary* and *equity-oriented* LOTL, not just "more."

More specifically, we seek to fill key local opportunity gaps to support the development of local students often excluded from college and careers (Dee & Penner, 2017; Patchen & Cox-Petersen, 2008). Simultaneously, through ongoing campus-community collaboration, we seek to design learning experiences beneficial *both* to local students *and* to campus stakeholders (Tiller & Ness, 2020; Weerts & Sandmann, 2008; Hatcher et al., 2020).

The National Science Foundation has required for years that researchers pursue "broadening participation and impact" with a proportion of federal grant dollars, including via "educational and outreach activities" that ideally prioritize students underrepresented in universities and specific careers (National Science Foundation, n.d.). We propose that campuses can apply this "broadening" logic far more systemically and deeply, through stable, sustained, and *staffed* efforts (Birch et al. 2013, 10) to leverage people and resources across the entire campus to address high-priority local K14 opportunity gaps. Many campuses already offer basic "broader impact" supports for grant-writing (Ferraro et al., 2013), and national entities offer scholars such supports (https://www.researchinsociety.org/). Yet we have seen that if scholars and reviewers don't push towards truly *broader* and *equity-oriented* impact, a grant's local "impact" can mean just slightly broadened participation: a lecture in one high-income classroom of a faculty member's child, or a public event with a large diverse audience but few ongoing consequences. Further, on many college and university campuses, PIs and students actually figure out local K12 "outreach" and service efforts on their own. We propose that truly "broad" local impact is more likely if campuses fund stable support teams to *help* colleagues figure out how to do locally beneficial outreach, and to design education/broader impact plans for grants in limited time with the most benefits to both university and under-resourced communities. Faculty and program leaders also need help evaluating how the work is going, with learning then applied to subsequent projects.

In our initiative, we've focused strategically on producing LOTL in STEM (Science, Technology, Engineering, and Math), as our community has glaring STEM opportunity gaps and our campus pursues STEM grants prolifically. Our Center supports LOTL creation in all subject areas. In our first seven years of the CSSI, our small, campus-funded CSSI team accomplished the following:

- **Supported more than 230 + campus faculty and postdocs** to help conceptualize and submit outreach/education and broader impact plans, making their STEM grants more competitive overall.

- **Supported 917 "service" outreach and education projects** out of our campus and in the community.

- **Helped campus colleagues and community partners** write, submit, evaluate, and/or execute **248 grants/contracts/funded projects** focused on STEM. That includes:

    - **$51.9M** to campus (**98** awarded); **$9.3M** in pending grant applications

    - **$16M** to community education partners (**15** awarded).

- **Assisted new K-20 student success efforts reaching over 14,000+ students** directly, from transitional kindergarten to graduate school.

- **Conducted 86 evaluations of projects** supporting K-20 students and educators.

- **Helped execute 225 + teacher development efforts**, with immediate impact on the pre-college

preparation of hundreds of students each year and thousands more over time.

As our annual reports have documented (*https://create.ucsd.edu/stem-initiative/cssi-annual-reports/index.html*), our efforts have ranged from sustained multi-district efforts in computer science and mathematics to single community learning events sparking STEM excitement in Spanish (what we call "thrilling" students, vs our longer investments in "skilling" students and teachers). But in each effort, we seek quality participation, not just quantity. In our efforts to leverage a university for local opportunity creation, Center staff act as *equity designers* (Pollock, 2017) who continually ask local educators and university partners:

- *What do university stakeholders have to offer?*
- *What LOTL are needed and missing, where?*
- *What available university resources (expertise, space, time, equipment) could be tapped, or grown through grants?*
- *Using those resources, who (i.e. which students, teachers, university stakeholders, and other local partners, from which schools, districts, and local organizations) should be invited to participate in which collective learning events focused on improving which aspects of education?*
- *How can learning events be designed to offer specific LOTL to young people and educators, while also benefiting campus participants?*
- *How do our efforts meet local needs?*

We are guided by more specific principles of *equity-oriented* LOTL work by universities.

Principle 1: prioritize *necessary* local opportunities to learn

In each CSSI effort, we co-create opportunities filling specific opportunity gaps experienced by students of color, low-income students, English learners, girls, and others with less access to the local "prosperity grid" in our region (Reno & Gumus-Dawes, 2010) and careers requiring college and specific degrees. Geographically, we focus most on students concentrated in high-poverty schools throughout our region and the teachers in those schools. By "region," we mean those who would consider the college/university their nearest local four year institution.

Our equity "impact" often hinges on who we invite into LOTL work. As equity-oriented professionals, CSSI staff introduce university partners to community members they often don't yet know in our segregated region. We have, for example, convinced faculty to spread structural engineering outreach beyond wealthy areas near campus (where they already had connections) to low-income areas where we have connections. We have helped faculty create new summer internship slots for community college students previously not invited to Research Experiences for Undergraduates (Freeman et al., 2014), arguing that including community college students might also support them to transfer to our campus (Maliszewski & Hayes, 2020; Tatum et al., 2006). We have helped faculty bring rural students to campus for new and sustained interactions. We have plugged faculty, students, and post-docs into ongoing community-based events as outreach providers and speakers providing specific guidance. We help partners handle snags that otherwise would block broad participation, like buses that need chaperones per district rules, necessary support letters, and university IRB clearances. We invite diverse teams and employ culturally-relevant approaches whenever possible, designing multilingual "outreach" and using locally resonant examples to support the development of STEM skills and identity for student groups historically underrepresented on our campus and in STEM careers (Dee & Penner, 2017; Patchen & Cox-Petersen, 2008).

Our work also pursues equity through focus on particular opportunity gaps. We prioritize investments in the "instructional core" (Elmore, 2008) of local teaching and learning during the school day, with informal learning events our next priority. We also con-

vince faculty to shape grants or service to contribute to LOTL in areas of particular systemic need. Noting STEM's often-forgotten "M" of mathematics, for example, we have supported oceanographers to share the math underlying their work with high school math teachers; prioritizing people's highest-value skills, we have supported oceanography graduate students to share compelling science projects with local children instead of "helping" by tutoring in reading. As our wider Center is staffed by professional development experts, we also hone sustained projects supporting administrators and teachers in nationally and locally prioritized pedagogical shifts (e.g., transitioning to inquiry-based science) and subject areas (e.g., the new and necessary field of K12 computer science). At all times, we pursue "a two-way model of engagement" that "allows institutions of higher education to bring the community into the process as researchers and experts in their community with needs and priorities, not just subjects of a study aimed to improve their community" (Tiller & Ness, 2020, 2).

And as a primary investment in local equity (Darling-Hammond, 2010), we invest resources in local *educators* -- local teachers and district administrators.

Principle 2: shape LOTL to *improve local teaching and learning*

When consulting with faculty, CSSI staff emphasize that investing in LOTL for local *educators* (particularly, teachers of low-income students of color) translates to learning opportunities reaching many more young people over time. We call this investment "the multiplier effect." We have convinced faculty seeking large NSF nanoengineering grants to provide summer "Research Experiences for Teachers" (RETs) that support teachers of low-income students to design lessons taking faculty content into local classrooms. Since very few teachers have recent hands-on experience with scientific research (Blanchard et al., 2009), we design RETs to help participating teachers share such experiences with colleagues. We also urge faculty to go beyond one-off teacher lectures (e.g., telling teachers about their Chemistry research) to make a sustained investment in teachers' pedagogy (e.g., discussing, then trying, ways the research could enrich an aspect of high school Chemistry).

Through partnerships across diverse and multilingual teams that include teachers, we also design locally and culturally relevant learning opportunities for *students* (Ladson-Billings, 1995), e.g., tapping an engineer's science for lessons about a local bridge or a biologist's for bilingual lessons on the science of tortillas. We also seek (and intentionally employ) two- and four-year STEM students, graduate students, and postdocs from underrepresented backgrounds, providing younger students with role models for STEM identities and pathways (Yong et al., 2020; Estrada et al., 2016; Trujillo et al., 2015). To maximize and diversify participation, partner K-12 educators also help CSSI staff design the timing of learning events (school day, after-school, vacation, and Saturday events), compensation (volunteer/paid/professional development credits or stipends for teachers), venues (including virtual), participant configurations, and communications (e.g., whether a professor should talk with Physics teachers only or a multidisciplinary group; how the professor can dialogue with educators rather than lecturing to them).

These examples also demonstrate how we insist that LOTL benefit many people simultaneously.

Principle 3: prioritize *mutually beneficial* LOTL benefitting many people simultaneously

In each effort, we maximize benefits to a diverse range of participants. For example, we helped a professor (who studies the chemistry of cells) leverage his NSF grant to fund a campus-based course. Over three years, the course brought students and teachers from local low-income high schools (in our campus' TRIO Upward Bound program) to do hands-on science activities with the professor's graduate students and undergraduates, adding cutting-edge scientific inquiry to Upward Bound students' ongoing college preparation (McElroy & Armesto, 1998). A CSSI team mem-

ber who supports local science teacher development brought in additional local teachers to learn from the same activities. Participating university students gained knowledge and skill in experiential teaching, while Upward Bound students explored chemistry and our university. Several years later, some participating undergraduates now are teachers, and some high school students now are Biology majors on our campus—and these online lessons now have hundreds of views and downloads by others. The same NSF dollars could have been spent on a single static website. Instead, they supported hands-on STEM learning across hundreds of local and campus people.

As another example, many campuses offer one-time public learning events where undergraduate/graduate students, postdocs, and faculty introduce young people and families to careers and local professionals. CSSI efforts seek to invest in longer-term benefits for more people. For example, CSSI staff have supported local community college students (themselves often low-income students of color) to join STEM outreach by our university, supporting both K-12 students' growth and their own. While honing outreach activities in public libraries, local museums, afterschool settings, community college fairs, and local STEM conferences for public audiences, we've embedded the same activities in STEM resource fairs enhancing programs inviting first-generation high school students to our campus for college exposure. We then collect activities in a virtual and hands-on resource bank so that campus student organizations seeking outreach opportunities don't have to reinvent curriculum. We work to design LOTL events that meet the needs of participating students of all ages, through attention to monetary compensation, academic credit, transportation, and even meals (Cady, 2014; Lambert et al. 2013; Strayhorn, 2012).

In such efforts, we also pursue *sustained* LOTL creation, rather than one-offs, because a university's community trust is always threatened if projects disappear. It is here that our education researcher skills become particularly necessary.

Principle 4: pursue *sustained* LOTL creation

In one three-year project funded by a federal Office of Naval Research (ONR) grant, we worked with campus partners to pair ONR-funded scientists with local district/school administrators and science teachers, to bring cutting-edge research into local high school science classrooms in lessons developed through lesson study protocols (Takahashi & McDougal, 2016). Traditional "outreach" efforts had leveraged many of these professors simply through single lectures in their own children's typically higher-income classrooms. Our grant linked 80 teachers from four large school districts that serve 44% of the region's low-income youth, with over 18 researchers across our campus and local industry -- plus their doctoral students and post-docs. Small groups of teachers learned about content through 2-day sessions with researchers, who themselves learned about connections to the K-12 Next Generation Science Standards. Teachers then designed and practiced lessons with local students, then shared exemplary lessons with colleagues, K-12 administrators, and faculty researchers in a public conference and celebration. Teachers positioned to shape department or district coursework then took modules developed through this grant into sustained curricula.

We studied the experiences of participating teachers, faculty, and doctoral students to learn more about impact and sustainability. Interviews indicated that faculty, post-docs, and graduate students valued learning new, more interactive ways to communicate their science to teachers and gained valuable outreach experiences to fold into subsequent grant proposals. The teachers reported significant increases in their excitement about teaching science, their content knowledge, and their ability to implement the NGSS. They also reported that their students (mostly low-income students of color) were significantly more engaged with the new lessons. Our review of student work demonstrated learning consistent with NGSS. Most importantly, the lesson study process itself became more foundational to local districts' professional development -- benefitting teachers and students across the entire region.

This work thus supported *teachers*, who gained expe-

rience in lesson study and local examples to bring science to life for students; *faculty*, who gained knowledge about how to more effectively communicate their science and ideas for next grants; *university students and postdocs*, who gained experience in communicating science to new audiences; and *local K-12 students* simultaneously, resulting in K-20 learning with lasting benefits for many. And in a strategic move toward sustainability, the project created a slate of new high school science teacher leaders who have since been tapped repeatedly to lead and develop additional science teacher professional development experiences in the region.

As this example shows, as education researchers, we use our research skills both to determine which opportunities to learn are desired and missing and to study our efforts at LOTL creation. Our work relies heavily on the concepts of "continuous improvement" networks (Bryk et al., 2015) and design-based Research-Practice Partnerships, which design interventions through long-lasting collaborative relationships with practitioners and share efforts across networks (Penuel et al., 2015; Penuel & Gallagher, 2017). While many RPPs envision tapping education researchers primarily, we (as education researchers) strategically tap researchers in all disciplines as partners with the K-20 community. We tap our own research skills to help design, implement, iterate, and scale high-quality, equity-oriented opportunities to learn. We also seek partnerships with district leaders to work to take such efforts system-wide.

Principle 5: pursue *systemic* LOTL creation

We think often about investments in systems as opposed to single locations. In one multi-year project focused on computer science (CS), for example, a key regional and national opportunity gap (Code.org 2020), CSSI staff helped CS faculty who were experts in their subject area but less experienced with K-12 systems, take their expertise into districts and schools to create new CS courses that previously did not exist. In two consecutive NSF grants, our education researchers used their knowledge of school and district systems to help campus CS faculty and local K-12 teachers and system leaders together boost educators' and students' computer science (CS) skills and create new coursework in large school districts supporting many of the region's low-income students of color. CSSI personnel helped faculty and staff to develop an engaging and practical CS training for 71 teachers, then helped district leaders create 27 completely new AP Computer Science Principles (CSP) courses in 19 schools. CSSI researchers then worked with CS teachers to make sure their CS curriculum supported student learning, while studying how districts were adding and sustaining rapidly changing CS curricula while broadening participation. In the second grant's first two years, half of the middle and high school teachers were women, and a significant number were Latinx. By the grant's end, a district that had started with one CS course was offering CSP courses in all of its high schools (18 CS courses taught by 11 teachers in 11 different high schools), with 36 new courses taught by 22 teachers in 20 schools across the three participating districts. Of the approximately 1,200 students enrolled in these classes, 27% were girls and 47% self-identified as Hispanic. CS coursework is now expanding into the districts' middle and elementary schools.

This work next brought new CS education organizations to our university and Center, further stabilizing our regional ability to grow CS opportunities; our Center now hosts regional chapters of the national CS Teachers Association and Code.org. Further benefiting both university and community, three new large CS grants/subawards have been secured at the university with our local districts/partners. These grants extend the work by seeking student input on CS pathways, improving CS teaching for English learners specifically, and building open source K-8 CS curriculum. We plan to incorporate undergraduate students and alumni into CSP classes to provide additional mentoring to students, again making benefits K20.

Leveraging *education researchers* in co-creating equity-oriented LOTL via universities

The role of education researchers in this co-design

work is essential. By the end of our collaborations, researchers from other disciplines a) understand more about K-12 systems and policies, practices, and pedagogies, to support next efforts; b) know more about effective ways to bring their work to the local education community; and c) learn more effective ways to communicate/translate their research, including in their own teaching. In essence, we give them the tools and concepts they need to create future LOTL themselves.

Not all education researchers can support this work. Our Center leads this initiative precisely because we have deep relationships across a regional education network of K-12, community college, university, industry, and non-profit partners. We are a center composed of sub-organizations and individuals linked to thousands of the region's educators, students and community organizations. We also know key people inside education systems—equity champions and network "influencers" (Moukarzel et al., 2020) who have the power and potential to shape school and district priorities. Many CSSI projects thus include both teacher/district leaders and lead partners from industry, community non-profits, county offices of education, community colleges, and informal education organizations (e.g., the local science center; university aquarium, local libraries and community centers). Our Center's researchers also are unabashed equity advocates who passionately invite others to close opportunity gaps; equity catalysts who spark excitement and opportunity-creation efforts with others; equity implementers who can execute events that convene people to talk and learn; *and* equity analysts who analyze and publicly discuss efforts at opportunity creation. Any campus can assemble a team with these priorities.

Our final bold contention is that beyond preparing for the professoriate, more education researchers can be developed and employed expressly to help universities produce equity-oriented LOTL in collaboration with expert practitioners, while publishing material on those efforts as we are doing here. Such education researchers also can push universities beyond the classic work of researching education's problems toward a local role in opportunity creation and spread. University-led K12 education research has long struggled to be useful to those actively working and teaching in schools and classrooms. The development and support of new types of university experts who daily bridge the gap between education research and the broader education community will go a long way toward ameliorating the problem.

Conclusion: Reimagining the entire university as a contributor to equity-oriented local opportunities to learn (LOTL)

As scholars argue, "The question for all local anchor institutions is: What do anchor institutions do to advance their communities' development?" (Birch et al., 2013, 8). Universities are major potential engines for local opportunity generation precisely because they stay local (Porter et al., n.d.) -- especially if universities collaborate proactively with communities over time (Tiller & Ness, 2020; Weerts & Sandmann, 2008; Hatcher et al., 2020). In this short conversation-starter, we have proposed that universities can *employ teams* of education researcher-practitioners to help stakeholders co-create equity-oriented, systemic LOTL. This will require funding and focus from university leaders as well as grantmakers, who can prioritize equity-oriented and sustainable investments in local systems of teaching and learning.

The current COVID-19 crisis threatening universities' economic futures may make our recommendations for "doing more" locally feel truly ill-timed. Yet the work we propose here creates critically needed resources for campus as well as K-14 communities, and such work is particularly crucial at a moment when all sectors of education are under tremendous fiscal strain.

That is, strategic LOTL creation is an investment that benefits both community and campus. Our campus is particularly energetic in STEM grant-seeking and admittedly, more self-interested in local preparation than some campuses: 1 in 5 campus undergraduates are educated in our region's K-14 schools, and as a "land grant" institution, we are part of a public system charged with educating and serving the state (Mehan

et al., 2010). Yet we believe that any higher education campus can participate in and benefit from LOTL creation. On every campus, professors need grants in order to do their work; many funders require strong outreach or "impact" plans to secure grants. On many campuses, campus leadership wants to solidify positive community connections; on ours, campus promotion policies encourage faculty "contributions to diversity." University students are often driven to make a difference in something that matters; when such students help spread LOTL to younger people, they invest simultaneously in their own career development through gaining experience in program building and public communication. Local partnerships make universities more familiar and attractive to potential local students; and every region benefits economically when local people are better-educated and better-employed. Combine the vast need for additional resources in public education with an explicit interest from many funders in supporting new college-going students as our future citizenry and workforce, and interests in creating equity-oriented LOTL intersect. And crucially, equity effort to spread necessary opportunities to communities currently not accessing them takes no opportunities "from" students with opportunity access; it literally makes more opportunities to go around.

Thus, when staff in our Center purposefully act as "equity designers" focusing collective efforts on specific opportunity gaps and students less connected to the "prosperity grid" (Reno & Gumus-Dawes, 2010), we simultaneously:

- Help colleagues secure grants through funder-required education plans in basic science grants, as well as through grants devoted to education research.

- Enable the creation of education programs that otherwise would not exist.

- Strengthen previously fragile relationships with regional low-income and underrepresented communities.

- Forge new relationships with philanthropy an industry organizations and federal agencies now funding collective projects between campus and K-14 partners.

- Connect campus stakeholders to K-14 schools and organizations, to offer valuable supports to students and teachers while learning about the local community.

- Spark excitement among faculty, staff and students who have wanted to enact impactful education efforts in local communities, and now have the support to do so.

Such effort helps transform the campus role in our region and the sense of what university people do. CSSI staff now receive almost daily requests from campus faculty, staff, students, K-14 partners, and community groups to help design, execute, and evaluate education projects with the most benefits to both university and community.

In sum, we propose that every university can and should be a place where faculty, students and staff help create necessary local opportunities to learn as a basic part of their work; that each university should pay highly skilled staff researchers and practitioners to shepherd such opportunity creation, just as universities pay staff for other essential functions; and that funders can ask and support universities to proactively engage in this work. We invite an ongoing dialogue with colleagues across the country engaged similarly in creating local opportunities to learn, so collectively we can better leverage universities for the public good.

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