1 Executive Summary

T? E? A? L? S? (TEALS) is a national non-profit organization started at and mostly funded my Microsoft whose purpose is to bring Computer Science education to more people around America. As Computer Science skills are extraordinarily useful both in terms of teaching logical reasoning[**?**] and in terms of acquiring employment[**?**][1], TEALS mission is quite timely. However, expertise in Computer Science is an uncommon skill among professional educators[2], and so TEALS seeks to reach its goals by enlisting community volunteers to teach the classes' content while professional educators simultaneously advise the experts on teaching strategies, assist in classroom management tasks, and study the topic under the tutelage of the experts. The goal is that within two years, the educators will have learned the material sufficiently well to take over the classroom on their own[**?**]. This approach has had great success in the Seattle area[**?**], and so the organization has spread to include New York City, ? [**?**].

As an experiment, TEALS also expanded to include several rural regions. In these cases, a dearth of community expertise has led TEALS to employ teleconferencing technology and volunteers from the urban areas where such expertise is more plentiful to serve as the outside experts. The first area in which this particular approach was employeed was in Beattyville, at Lee County High School in Kentucky, but the approach has since been tried in Duluth, Minnesota; Anchorage, Alaska; and a few other regions of the United States[**?**].

While the approach has seen relatively good success in introductory courses [**?**], it has seen relatively poor success in expanding to the Advanced Placement (AP) courses in Lee County. We hypothesize that the exacting nature of the AP curriculum[3] requires a certain amount of availability of expertise in the topic to be constantly available. Given the remote nature of the course and the fact that the professional educator is still learning the material, on-site expertise is impossible, and given the voluntary nature of the experts teaching the course, remote availability is limited. Moreover, even if some remote method of providing help were possible, commensurate with the poverty of Lee County, some of the students in the course do not even have an internet connection at home with which they could access such help.

This grant proposes a partnership between the Lee County TEALS pro-

[1] See Section C
[2] See Section A
[3] See Section4.

gram and the ?????????????? of Eastern Kentucky University (EKU) under the C? A? R? E? S? (CARES) Community Grants program. The budget would fund an on-site tutor who would be a student at EKU studying computer science and who had proven mastery of the skills taught in AP Computer Science. This tutor would be available for tutoring at Lee County High School two days a week, would attend class once a week, and would join the volunteer experts and the professional educator on an online forum to help answer questions from students for two hours a week. The tutor would also be required to attend five hours of training on the curriculum with the experts and educator before the school year began. Including travel expenses and a USD 20 per hour pay rate, we budget USD ?????? for the tutor over the course of the entire 2014–2015 school year.

We view this as an amazing opportunity for all parties involved. For the tutor, a chance to teach the skills that she has developed in classes as well as a chance to get advice on computer science from industry professionals as well as on teaching from a practicing educator. For the industry professionals, an on-site semi-expert partner who is obligated by contract (instead of by honor) to assist in their students' learning. For the professional educator, a teaching assistant to help guide students they might otherwise feel powerless to help. For EKU, a chance to participate in an experiment bringing computer science education to a region that otherwise would not have any access to it. For Kentucky, a chance to invigorate its education system and be on the forefront of brining timely and interesting electives[4] to the state which will help power its economy and train its future leaders in the skills most necessary for the moment. Moreover, if this partnership goes well, we can imagine a similar tutor covering other schools in the ????????? of the CARES program, potentially even as a new form of (pre-)student teaching in the ever-innovating teacher training program at Eastern Kentucky[5].

Computer Science is a more and more desirable skill which exercises the mind in ways similar to abstract science and mathematics education. But expertise is still held among a very elite few. EKU through CARES has the opportunity to expand access to that knowledge that can.....

[4] SB whatever

[5] Is this just bullshit?