

ACCESS Online Survey

Alliance to Catalyze Change for Equity in STEM Success Online Survey Project Proposal



HIGH POINT UNIVERSITY

Submitted by:

High Point University CS Department

One University Drive
High Point, NC 27368

Dr. Lloyd Williams
Phone: 336-841-2858
Email: lwillia5@highpoint.edu

Proposal to provide ACCESS online data collection regarding member diversity outreach programs

Executive Summary: This proposal outlines the creation and deployment of an interactive online portal that will enable the ACCESS organization to collect information online from members regarding programs that have been implemented to promote STEM diversity. The system will collect survey data from authorized members and provide an interactive dashboard that will allow system administrators to view and interact with the collected data. The administrators will be able to approve data for addition to a publicly available database which will be searchable on the portal by the general public.

High Point Faculty Team

Although this proposal is designed with student participation as a major component, all project activities and participating students will be overseen by High Point University Associate Professors of Computer Science Drs. Jason Pittman and Lloyd Williams. They both have extensive industry, academic and grants management experience. Their curriculum vitae are attached to this proposal.

ACCESS Portal Target User Groups

The portal will be built to accommodate three separate user groups:

- **Administrator/Superuser:** This user group will have full access to all collected data. They will be able to authorize and remove members from all user groups. They will be able to authorize submitted surveys for addition to the publically accessible database.
- **ACCESS Member:** This group will consist of members of ACCESS who have been authorized to enter data into the survey
- **General Public:** This group will be made up of all non-member visitors to the portal. They will have access to all public facing informational pages. They will be able to search all data that has been cleared by administrators for public access.

ACCESS Portal Structure

The portal will consist of the following site structure:

- Home/Splash Page: A visually appealing welcome page for the portal
- About Page: Information regarding the ACCESS organization
- People Page: Profiles of ACCESS leadership team and member organizations
- Survey Page: Password protected online survey for authorized members
- Public Database Search Page: A search page that will allow all users to search data that has been cleared by portal administrators for public access
- Contact Page: Contact information for ACCESS

Site administrators only will have access to a hidden dashboard page:

- Interactive Dashboard: This page will allow the sites administrators to view and interact with the collected data. They will be able to authorize collected surveys for addition to the publicly available database for searching.

Student Participation

This proposal includes funding for several student interns to be involved in the creation of the portal. This will provide the students with valuable experience and ensure that a significant amount of the resources that are allocated to the creation of this portal will be directly supporting students who are pursuing careers in a STEM field.

The five years of ongoing maintenance for the ACCESS portal will enable 10 semesters of High Point University students to benefit from participation in the project. The ability to expose early career students to real world experience and add the all-important first professional job to their resume will be enormously beneficial.

ACCESS Portal Implementation

ACCESS Portal Web Site

A portal design prototype will be presented to the client and refined based on received feedback. Upon approval of the design concept by the client, all components of the portal will be created based on the design concept. The client will be responsible for providing:

- The text content for each of the pages mentioned above describing the ACCESS organization and the purpose of the portal
- The survey will be created based on the question list which has been provided by the ACCESS organization
- Photos of members of ACCESS leadership team to accompany short biographical descriptions
- If possible, photos of ACCESS project activities and participants. If photos cannot be provided, stock photos will be used

ACCESS Portal Data Processing Technology

Foremost, development will employ modern web application technology that provides administrators, participants, and the general public with a familiar interface similar to common web sites. Furthermore, the web application will be usable across platforms- from personal computer to mobile device so as to facilitate responsiveness and usability.

The web application will support public searching of shared data, private submission of data by participants, as well as user and data management by administrators. The public will be able to search based on defined ACCESS data fields and data relationships. Participants will be able to create an account and, upon approval from an administrator, complete the questionnaire and attach documentation. Administrators will be able to approve participants, remove participants, as well as manage submitted data.

Overall, the design will follow common standards and best practices to ensure stability in the web application as well as security. All access will be encrypted using industry standard technology. As well, all data transactions will be logged to ensure accountability.

ACCESS Portal Hosting

We recommend a hosting service external to the computer science department be used to host the Web portal. The portal will be fully installed on the external server and can still be maintained in place for a five-year period. There are several advantages to an external hosting service:

1. Regular automated backups of collected data
2. Redundant power supplies and Internet connections to avoid downtime
3. Most importantly, a dedicated security team to ensure that the data is maintained as securely as possible.

The High Point University IT department would be a viable option, external to the computer science department, for hosting the site.

Cost Estimate

Item	Cost
Design & Development	\$19,000
Testing	\$5,000
Implementation	\$2,500

Ongoing Maintenance Costs

Ongoing maintenance for a five-year period will be conducted by a High Point University student with appropriate faculty supervision. This ongoing maintenance would be billed at \$225 per month over a period of five years. This ongoing maintenance would have the substantial ancillary benefit of providing ten semesters of extremely valuable professional work experience to students.