2013 City of Austin
Google Fiber Community Connections Program
Application and Instructions

Google has announced plans to bring Google Fiber to Austin residents. The plan calls for building an ultra, high speed broadband network with Internet speeds of one gigabit per second, up to 100 times faster than normal to Austin's homes.

Google has agreed to provide up to 100 sites with broadband Internet services through its fiber network free of charge until April 8, 2023 in addition to City Hall and the new Central Library. These Community Connections will be to public or non-profit sites in the City of Austin that provide access and services directly to Austinites through what is being called the Community Connections program. Under the agreement with Google Fiber, the City of Austin will create the proposed list of sites for the program.

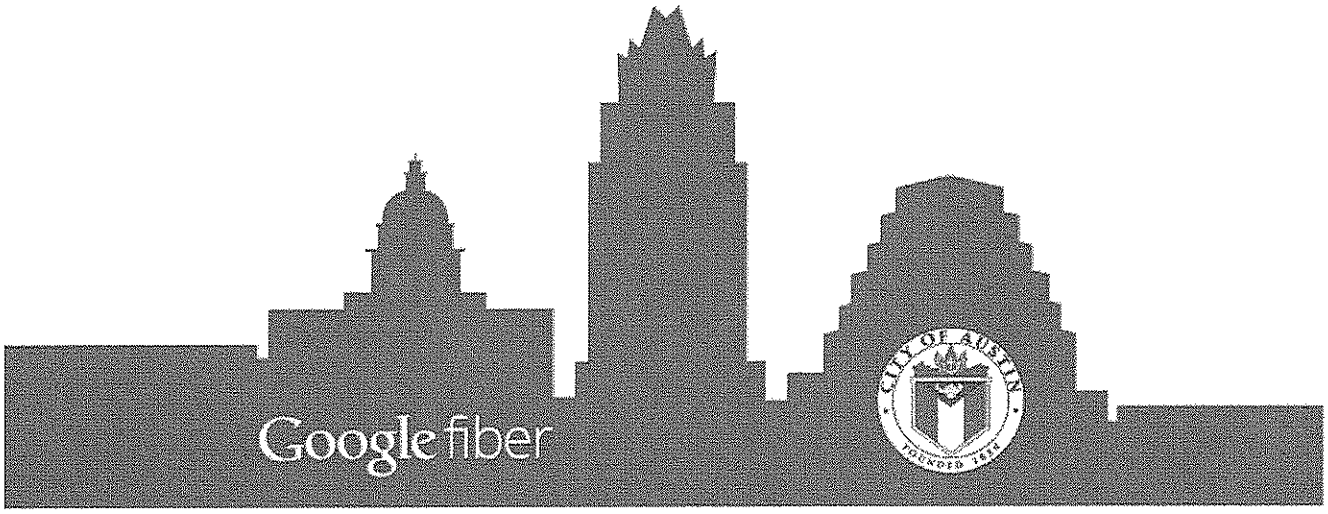
It is the City Council's goal to ensure an application and selection process that is transparent, available to all, and utilizes a clear set of selection criteria adopted by the City Council. Community Connections aims to provide fiber speed internet access directly to the public and will serve for innovation and digital inclusion, resulting in advancements unique to Austin's spirit.

Attached is the Community Connections Site Application, which is due by September 30, 2013.

Please direct questions to the City's Telecommunications & Regulatory Affairs Office at digital.inclusion@austintexas.gov or 512-974-2999.

For more information and application: austintexas.gov/digitalinclusion

Thank you for your consideration.



Community Connections Site Selection Application Form

The City of Austin will propose **100** public or non-profit organizations to receive Google Fiber connections at their locations.

Application Packet

In order to be considered for selection, please submit the following items:

- **General Application Form.** Complete this form (ensuring that it is signed and dated.
- **Criteria Form. Complete this form as fully as possible.** If the organization offers services at more than one location, the applicant should complete the Criteria Form for each location and prioritize the single location that will benefit the most from having a gigabit of service.

Application Submission

All applications are due in the Office of Telecommunications & Regulatory Affairs (TARA) before **4:45 p.m. on Monday, September 30, 2013**. Late applications will not be considered.

Submissions may be submitted by email or snail mail to:
Email: digital.inclusion@austintexas.gov
Address: City of Austin - Municipal Building -124 W. 8th Street, Suite 210, Austin, Texas 78701
Phone: 512.974.2999

Application Review Process

Community Applications

- August 26, 2013 - Community Site Applications Available
- September 30, 2013 - Deadline for Site Applications for Community Connections
- October 1-31, 2013 - Staff Review & Assessment

Site List Adoption

- November 6 , 2013 – Community Tech & Telecommunications Commission - Discussion & Input
- November 13, 2013 – Emerging Technology & Telecommunications Council Committee - Discussion & Recommendation to Council
- November 21, 2013 - Council Discussion & Adoption of Community Connection Site List
- End of 2013 - Google Fiber requested deadline for Community Connection Site List from City

Privacy Statement

This information is being collected and will be used to assist in determining your organization's eligibility and qualification for receiving a community connection on the City's proposed site list. This information provided may be published by the City. Any information collected, assembled, or maintained by or for a governmental body is subject to the Public Information Act.

Community Connections General Application Form

(Please complete this portion of application only once per organization if submitting for multiple sites)

General Application Form

Applicant Organization Name: Girlstart

Alias/DBA:

Program Name for Google Fiber Connection:

Girlstart: STEM Education for Girls

Organization Mission and Purpose:

Girlstart's mission is to increase girls' interest and engagement in STEM through innovative, nationally-recognized informal STEM education programs. By empowering more girls to continue STEM studies, we can help address our nation's STEM workforce inequities and impact innovation and economic development in America and across the globe. To accomplish its mission, Girlstart develops and implements a range of innovative, research- and standards-based education and mentorship programs designed to promote girls' early engagement and academic success in STEM, encourage girls' aspirations and persistence in STEM education and careers, and incubate a talented and diverse STEM workforce.

Organization Website:

www.girlstart.org

Contact Name: Lauren Bussiere

City: Austin	**State:** TX	**Zip:** 78757
Phone: 512-916-4775	**Email:** lauren@girlstart.org	

Location(s) applying for site selection (including physical address of location) and how long your organization plans on being at each location:

Girlstart STEM Center, 1400 W. Anderson Lane, Austin TX 78757. Girlstart owns this building free and clear and has no plans to move. Our permanent offices are housed here, and Summer Camps and Public STEM events are also held at this location.

Type of Organization: X Non-Profit ☐ Public Entity

Number of years in operation:	**Number of employees at location:**
15	**9 FTE, 35+ PTE**

Community Connections Criteria Form

(Please complete this portion of application once for organization in an electronic document and please explain each response, 1000 words maximum per response, please)

Criteria Form

Organization

1. What is your agency's vision? (*response required for all agencies*)

   The world's greatest challenges need new STEM (science, technology, engineering, and math) ideas and insights. Yet half of the world's ideamakers—women and girls—are discouraged from developing vital STEM ideas. We believe that more girls with more ideas will create more solutions to benefit us all.

   To address this, Girlstart increases girls' interest and engagement in STEM through innovative, nationally-recognized informal STEM education programs. At Girlstart, we cultivate a culture where risk is rewarded, curiosity is encouraged, and creativity is expected.

   Girlstart girls are connected, brave, and resilient. Girlstart makes girls more successful, and inspires them to take on the world's greatest challenges.

2. What is your agency's mission and purpose? (*response required for all agencies*)

   Girlstart's mission is to increase girls' interest and engagement in STEM through innovative, nationally-recognized informal STEM education programs. By empowering more girls to continue STEM studies, we can help address our nation's STEM workforce inequities and impact innovation and economic development in America and across the globe. To accomplish its mission, Girlstart develops and implements a range of innovative, research- and standards-based education and mentorship programs designed to promote girls' early engagement and academic success in STEM, encourage girls' aspirations and persistence in STEM education and careers, and incubate a talented and diverse STEM workforce.

   Founded in Austin, Texas, Girlstart is the only community-based informal STEM education nonprofit in the nation specifically dedicated to empowering and equipping girls in STEM through year-round STEM educational programming. Since 1997, Girlstart has served over 40,000 girls and 6,000 teachers and families with school-based programs, professional development for teachers, summer camps, STEM career conferences and expos, large-scale science events for families, and community STEM education outreach programs. Girlstart programs are open to girls K-16. We are focused on serving girls of

minority backgrounds, girls who live in low-income or nonurban environments, and/or are considered at risk of academic failure by the Texas Education Agency.

Our goals are to:

- Increase girls' competency in conducting scientific investigations and critical thinking/reasoning.
- Increase girls' facility and mastery in STEM skills.
- Increase girls' confidence and interest in conducting STEM activities.
- Increase girls' the understanding that there are multiple applications of STEM in everyday life.
- Increase girls' awareness of STEM careers and interest in pursuing STEM electives, subjects, majors, and careers.

3. Please list your organization's affiliations, community partnerships, certifications, and/or accreditations. (*response required for all agencies*)
Girlstart partners with more than 40 public elementary and middle schools throughout Texas to deliver our After School program, including schools in the following districts:
Austin ISD
Connelly ISD (Waco, TX)
Del Valle ISD
Hays CISD
Georgetown ISD
Mansfield ISD (Mansfield, TX)
McAllen ISD (McAllen, TX)
Northside ISD (San Antonio, TX)
Pflugerville ISD
Round Rock ISD
Taylor ISD
Gateway Charter School

We also partner with a number of community serving organizations to deliver our Summer Camps 'to Go' (Summer Camp programs offered for free in high-need communities outside of Austin):
Columbia Neighborhood Center, Sunnyvale CA
Boys & Girls Clubs of Bellevue, WA
Duck University of Taylor ISD
Good Samaritan Community Services Center of San Antonio
East Broad Outreach Center, Mansfield TX
Windcrest Elementary School, San Antonio TX

The Girlstart STEM Center is accredited with the State of Texas Health Services Department as a certified Youth Camp.

Girlstart's two core programs, Girlstart After School and Girlstart Summer Camps, have been recognized by Change the Equation in their STEMWorks database as "what works" in informal STEM education. Girlstart After School has also been recognized by the Afterschool Alliance in their STEM Afterschool Storybook as one of only a handful of effective informal STEM afterschool programs in the nation.

4. What is the total number of unduplicated clients served by your organization at this location last fiscal year? (*response required for non-profit agencies only*)
Girlstart Summer Camps 2012: 563
Public STEM events at Girlstart STEM Center 2012: 565
Other/ Guests who use our space (Austin Homeschool Alliance, Girls' School of Austin, Wooten

Neighborhood Association): 150
TOTAL FY12: 1,278

Girlstart has made recent improvements to our facility that allow us to serve more clients and do so more efficiently; as a result, we have already exceeded our 2012 number thus far in 2013. In 2013, we have welcomed 1,583 girls, parents, educators, and community members to programs held at the Girlstart STEM Center, and we are planning several additional programs to take place here throughout the fall.

5. Briefly provide an overview of your organization and the services it offers. (*response required for all agencies*)

Founded in Austin in 1997, Girlstart seeks to increase girls' interest and engagement in STEM and help build the STEM skills, knowledge, and confidence they will need to be successful in STEM activities, classes, majors, and careers. Through its comprehensive programming, Girlstart provides a year-round, intensive suite of STEM education programs for K-12 girls.

Girlstart's major programs include:

Girlstart After School: Fall / Spring Semesters (Elementary and Middle School)
Girlstart After School is an intensive intervention where we provide free STEM programming every week throughout the school year at our partner schools, as well as wraparound services to support STEM in each partner school. Girlstart After School involves sequential, informal, hands-on and inquiry-based activities across the STEM acronym. As of the close of the school year in fall 2012, Girlstart After School reached 705 3rd-8th grade girls through 36 after school programs in 35 schools. I

Girlstart Summer Camp: Summer Semester (Elementary and Middle School)
Girlstart Summer Camps are thematic, week-long STEM experiences for girls in the 3rd-10th grades. Summer Camp is designed to build STEM skills and increase participants' interest in STEM subjects and careers. In 2012, Girlstart delivered Summer Camp programming for 563 girls.

Girls in STEM Conference: Spring Semester (Elementary and Middle School)
Girls in STEM introduces girls to STEM careers through hands-on activities led by professional women working in STEM. At 2013's Girls in STEM, 576 4th through 8th grade girls and more than 200 volunteers participated. 62% of 2013's girls—girls from Girlstart After School—received a need-based scholarship and free bus transportation.

Community STEM Programs: All Semesters (K-12)
As a community outreach service, Girlstart provides free, family-friendly Community STEM programming that involve high-quality STEM activities for 5,000+ children and family members annually. These programs are free and take place in varied schools and community sites around Central Texas.

GAB: Girls' Alumnae Board: All Semesters (High School)
Girlstart's engagement program specifically for alumna—the Girls' Alumnae Board, or GAB—is a multifaceted way to reach, engage, and sustain the involvement of our alumna through high school and college. In addition to being a forum for providing feedback to Girlstart on key questions, GAB is also a forum for alumna as they seek to transition from Girlstart girls to college students and professional women in STEM.

STEM CREW: All Semesters (College)
To support the implementation of all its programs, Girlstart recruits and trains a cadre of pre-service teachers in its internship program, whom we call STEM CREW members (creative, resourceful,

empowered women). Our STEM CREW provides us with a consistent, talented, committed, and skilled group of program leaders at the same time we train them to conduct Girlstart programming. Through the STEM CREW, Girlstart improves the preparation of future teachers, particularly elementary and middle school teachers by providing them with pedagogical and practical sets of skills to engage students in STEM, as well as nurturing a personal framework that fosters their future development and growth as teachers.

6. Describe the community issues your organization is attempting to address. Include a description of the population most at risk of experiencing the issues described. (*response required for non-profit agencies only*)

   It is no longer conjecture that a workforce skilled in STEM is necessary for the US to regain a global competitive edge and maintain economic prosperity. American students' aptitude in science and math now lags behind students in advanced, as well as emerging, nations. Although bachelor's degrees as a whole are earned by more women than men, women earn a fraction of the total number of STEM degrees. Even fewer persist in STEM careers. Women hold only 12% of the nation's STEM jobs; at the same time, women—now half the nation's workforce—are more frequently their family's head of household, or co-breadwinner.

   Although there is significant reason to invest in STEM education, Texas public schools face significant challenges in nurturing a STEM literate population. In 2009, only 38% of Texas 4th graders met or exceeded the national standard for math, and 60% of Texas elementary school teachers spend less than two hours per week teaching science in their classrooms. In order to bridge this gap, Girlstart's year-round programs foster STEM skills development, an understanding of the importance of STEM as a way to solve the world's major problems, as well as an interest in STEM electives, majors, and careers.

   Texas schools serve a diverse population comprising inner-city and nonurban students as well as a high proportion of ELLs, first-generation college aspirants, and youth from low-income backgrounds—all groups that are at high risk for academic failure and that, along with women, are under-represented in STEM. This compounds the general trend that prompted Girlstart's founding, that girls, especially from the 4th grade, begin to lose interest in STEM. Because of this, Girlstart is focused on serving girls in 4th through 8th grade and particularly on girls who live in low-income or rural environments (and/or considered 'at-risk' of academic failure by the Texas Education Agency). Girlstart's approach to OST programs incorporates informal characteristics now widely recognized in the science education field as promising practices in STEM education for girls. Research has shown that employing such strategies can improve girls' interest in pursuing STEM courses and careers and reduce gender stereotypes and biases associated with STEM pursuits.

   The elementary and middle school years are a critical time to cultivate a life-long enthusiasm for STEM pursuits among girls. Under pressure to raise test scores in reading and mathematics, schools are often forced to de-emphasize technology and science, particularly at the elementary level. However, when girls miss out on STEM subjects in their primary school years, they are likely to miss out on these subjects at the secondary level. By introducing girls to rewarding STEM experiences and fostering a sense of self-efficacy in STEM subjects, Girlstart programs help girls make this essential step towards a brighter future.

   Girlstart is exclusively dedicated to STEM education programs for girls. Our programs are directly linked to the impact we seek to make: increase the number of women and girls in STEM electives, majors, and careers.

7. Describe the demographics (e.g. ethnicity, gender, age, and income levels) and geographic characteristics of the community members your organization serves. (*response required for non-profit agencies only*)

While 100% of Girlstart target participants—girls—are already underserved in STEM, we are particularly interested in changing the equation for girls who are also at-risk, live in a low-income or nonurban environment, or are of a nonwhite ethnicity.

Of our two core programs--Girlstart After School and Girlstart Summer Camp--73+% of our participants are considered economically disadvantaged, and 48% are Latina, 10% African-American, 33% Caucasian, and 5% Asian/Pacific Islander. We strive to make our programs accessible by girls who otherwise would never have access to high-quality STEM programming: Girlstart After School is free and more than 35% of girls attended Girlstart Summer Camp on scholarship in 2013. Girlstart participants are girls from the age of 8 to 14.

Girlstart programs reach high-need girls in urban, rural, and suburban neighborhoods throughout Central Texas (Austin actually has the second highest rate of suburban poverty in the nation), including Travis, Williamson, and Hays Counties. Of the 875 girls who participated in Girlstart After School in 2012-2013, 68% are considered economically disadvantaged (receive free or reduced-price lunch at school), 55% are first-generation college aspirants, and 33% are considered Limited English Proficient.

Girlstart's Community STEM Outreach programs reach a broad cross-section of the Central Texas population, including many children, parents, and other community members of all ages, ethnicities, and socioeconomic statuses. Girlstart's Teacher Professional Development programs also provide continuing education to in-service teachers across Texas and nationwide.

8. Describe your organization's accessibility (e.g. accessible main entrance, within blocks of a public bus stop, etc.). (*response required for non-profit agencies only*)

Girlstart's STEM Center is a secure location, and our main public entrance consists of an open lobby with a wheelchair-accessible front door. Program areas are accessed through a passcode-protected security door. Additional locked entrances are available at the end of each wing. Before Girlstart purchased our building at 1400 W. Anderson Lane, the building was a nursing home, so all interior doors and hallways are very wide. Girlstart is less than half a block away from a public bus stop (in front of Redeemer Lutheran Church on Anderson Lane), and many participants walk to our facility from the nearby Wooten and Crestview neighborhoods (Wooten Elementary is within sight of Girlstart).

9. If selected, how will your organization incorporate Google Fiber into the services it offers? (*response required for all agencies*)

All programs that take place at the Girlstart STEM Center feature a strong Technology (the "T" in STEM) component that makes use of Girlstart's technology toolbox, including our computer labs. Recent lessons have included app development, computer animation, 3d design and printing using Google SketchUp, and video game programming. The majority of these lessons rely on Girlstart's wireless internet connection either to run programs that require online access (such as AppInventor and GoAnimate) or to store girls' work to the cloud so they can access it later, either at Girlstart or at home. However, Girlstart's current wireless internet connection is weak and inconsistent, which creates significant problems, especially when two groups (up to 60 girls) are attempting to use the wireless simultaneously.

Replacing Girlstart's current weak wireless internet with Google Fiber would increase Girlstart's capacity to deliver our programming effectively and efficiently. Girlstart will be able to use our computer labs much more than we are currently able to do, and we will be able to integrate more programs that require online access into our STEM curriculum. We will be able to store more girls' work files (and files of

larger size) on the cloud, enabling participants to continue their learning experiences at home or the next time they come to Girlstart. Thus, if Girlstart is selected to receive Google Fiber, this new resource will enable Girlstart to provide more and better cutting-edge technology experiences to more girls. We will be able to deliver more technology-focused programs that will give more girls the opportunity to learn basic technological literacy, master programming and design concepts and skills, and feel a sense of authorship and ownership of their digital creations.

10. The City of Austin requires an annual report explaining how selected organizations and the community they serve benefit from Google Fiber. If selected, how will your organization measure the impact Google Fiber has on those served by your organization? Describe evaluation methods, goals, and objectives. (*response required for all agencies*)

    Goal 1: Offer high-quality digital learning opportunities to 1000+ Girlstart participants and community members.

    Evaluation method: Girlstart will track/ count all participants who engage in technology-focused digital learning activities at the Girlstart STEM Center.

    Goal 2: Launch Virtual Teacher Professional Development program. 80% of VTPD participants will report that Girlstart provided them with useful and relevant STEM teaching resources.

    Evaluation method: Girlstart will track/ count all VTPD sessions offered and participants. Participants will complete a survey designed to assess the usefulness and efficacy of our TPD programs.

    Goal 3: Increase # of participants using SaaS programs and cloud storage.

    Evaluation method: Girlstart will track/ count all program participants who use SaaS/ web-based software and/or cloud storage, using our previous year's numbers (Sept. 2012 through August 2013) as a baseline.

    Goal 4: Reduce number of internet outages/ overloads/ glitches. Improve user experience of Girlstart website, including program registration, increase website/blog content requiring high-bandwidth uploads, and reduce user errors & negative interactions with website.

    Evaluation method: Currently, Girlstart does not track the number of outages or problems with our internet connection, but Girlstart will establish a baseline for our current system beginning Oct. 1, 2013. We will continue to track outages, registration glitches, system overloads, upload errors, and website crashes after Google Fiber is installed to identify improvement.

Please include location if applying for more than one location (include priority rank if submitting for more than one location:

Community

(*responses required for all agencies*)

1. Briefly describe how Google Fiber will enhance public participation in your organization's service. Bringing Google Fiber to the Girlstart STEM Center will enable Girlstart to offer more free and low-cost programs to high-need girls, and to improve the programming that we already offer by integrating more web-based applications and Software as a Service programs into our curriculum, improving our ability to store girls' projects, connecting girls with more STEM professionals through Google Hangouts, and allowing more girls to use our internet connection at any given time. Girlstart's facility and computer labs are open to members of the public (girls) during Girlstart's STEM Saturday workshops, but STEM Saturday programs would be dramatically improved with the addition of not just a strong and reliable internet connection (which we currently lack), but also enhanced program content such as Google Hangouts with STEM role models, high-quality streaming video, and SaaS programs. We may also be able to develop curriculum that integrates the Google Nexus tablet, giving girls a new platform to

develop and create new ideas. It may even be possible for Girlstart to find digital content online or develop new content for use in our recently opened Mini-Planetarium.

Google Fiber would also help Girlstart improve our other program offerings, such as our DeSTEMber initiative, and our organizational data management. DeSTEMber is an online connection of hands-on STEM activities, Google Hangouts, and videos designed to keep kids engaged in STEM throughout the winter school holidays (there is one activity or event for each day of the month). With the addition of Google Fiber, Girlstart could offer higher-quality program content, more Google Hangouts, and allow more people to access DeSTEMber content. Google Fiber would improve Girlstart's ability to manage our website (including our public blog full of hands-on STEM activities), which currently suffers due to very slow upload speeds. Additionally, Google Fiber and Google Drive would make it possible for Girlstart to digitize our parental consent form for our 550+ Summer Camp participants and 1000+ Girlstart After School participants, with parents able to sign these forms online. Streamlining this process and our storage of these files would greatly improve Girlstart's organizational efficiency, allowing us to devote more time and resources to developing and delivering high-quality STEM educational programming.

2. Briefly describe how your organization promotes digital inclusion.
   Girlstart is exclusively dedicated to providing STEM education to girls, and heavily focused on creating STEM education opportunities for girls in underserved and high-need communities. A major focus of Girlstart program curriculum is Technology, which includes topics such as robotics but consists mainly of computer- or tablet-based lessons in topics such as game development, app development, and 3d design. Thus Girlstart programs promote the inclusion of girls in digital activities and in fields where women are strongly underrepresented—computer science, programming, and web and software development. In 2012, 95% of participants in Girlstart programs participated at no cost.

3. Will bringing Google Fiber to your organization help the underserved? Please explain.
   100% of Girlstart participants—girls—are underserved in STEM, but Girlstart is especially focused on reaching girls in low-income, minority, or nonurban communities. Many Girlstart participants do not have access to computers or internet connections at home, much less to cutting-edge technologies and high-quality networks. Selecting Girlstart to receive Google Fiber would mean creating more opportunities that our participants may otherwise never have: opportunities to engage in hands-on digital learning activities in a variety of technology disciplines, which will help them build the skills they will need to be successful in the tech-oriented workplaces of the twenty-first century.

4. How much of your community will benefit from the Google Fiber connection?
   The 1,278 individuals who engaged in STEM learning activities at the Girlstart STEM Center in 2012 represents only 11% of the total number of individuals served by Girlstart in 2012; many Girlstart programs take place at high-need schools or at various locations throughout the community. Nonetheless, bringing Google Fiber to Girlstart will benefit more than just those individuals who come to the Girlstart STEM Center.

   Girlstart estimates that Google Fiber at the Girlstart STEM Center would benefit at least **9,810** community members (**82%** of our total 2012 reach). Google Fiber at the Girlstart STEM Center would benefit all girls and community members who participate in programs at the Girlstart STEM Center (estimated **1,500+** individuals in 2014), as well as the following direct and indirect beneficiaries:
   - Google Fiber would allow remote Girlstart STEM CREW members (leaders of Girlstart 'to Go' programs in McAllen, San Antonio, Waco, Dallas, and other communities) to participate in training sessions with Austin-area staff, improving their preparation for the classroom (**10+** program leaders; indirect benefit to **100+** girls in 'to Go' programs).
   - Google Fiber would improve the experience of all Girlstart After School participants (**1000+** girls)

and Community STEM participants (**7,000+** girls and community members) by allowing Girlstart staff and STEM CREW to develop new curriculum, gain access to new teaching materials, and improve our storage and management of files of all kind, from curriculum and materials to educational videos, program evaluation data, and registration and permission forms.

- With Google Fiber, Girlstart would be able to develop and launch Virtual Teacher Professional Development programs, discussed in more detail below. Girlstart would be able to reach an additional **200+** educators each year with this program.
- Additionally, Google Fiber would allow Girlstart to improve the user experience and content of our current online initiatives (Girlstart blog and DeSTEMber initiative). These two extremely popular initiatives reached more than **178,000** girls, parents, teachers, and other community members in 2012 (this number is not included in the 9,800 estimate above nor in our general description of total program reach). Girlstart would also be able to develop new online learning initiatives using Google Fiber.

5. Briefly describe how your organization will offer a new community service as a result of the Google Fiber connection.
If Girlstart is awarded a Google Fiber connection, we would be able to implement a Virtual Teacher Professional Development program, something that Girlstart has long envisioned but currently lacks the resources to do. Girlstart currently conducts Teacher Professional Development for more than 400 educators annually, including training sessions at local partner schools, and at state and national education conferences. Topics include gender equity in the classroom, bringing informal methods into the formal classroom, and specific curriculum topics such as digital microscopes, underwater robotics, and app development. Girlstart is currently unable to offer Virtual Teacher Professional Development because the current internet connection at the Girlstart STEM Center cannot support a sustained connection with many outside participants, and our current upload speeds prohibit us from making large video files (of past training sessions, etc.) available on our website. With the extra speed and bandwidth of a Google Fiber connection, Girlstart would be able to use Google Hangouts to conduct these training sessions virtually with a large number of participants, and also to save them and post them online for additional participants to access at their convenience. Girlstart estimates that we could reach at least an additional 200+ educators through this program in 2014.

Innovation

(responses required for all agencies)

1. Please describe the potential innovative applications that could be developed with a gigabit connection.
If Girlstart had a gigabit connection, we could use our Google Fiber connection to develop any number of program components: girls could stream HD video from digital microscopes to our Promethean Boards or computers, complete robotics challenges by programming and controlling robots that are in a separate room, watch HD educational video content, and connect with STEM role models and other Girlstart participants anywhere in the world through Google Hangouts. Girls could create and program interactive game environments using SaaS programs currently unsupported by our wireless connections, and they could create new applications for the Google Nexus tablet that rely on real-time data input. Girlstart could expand and improve our digital media production activities and make the girls' videos available to remote audiences (their parents or friends).

Girlstart's program philosophy is based on the idea of giving girls the tools they need to build their own skills and exercise their capacity for creativity and innovation. Although Girlstart's staff works ceaselessly to develop new program components and activities, we believe that the most innovative applications that could be developed with a Google Fiber connection will come from the minds of our participants

themselves.

2. Does your organization have or foresee high bandwidth applications?
Girlstart's program content, program registration, cloud storage of data files, streaming video, website uploads, and Google Hangouts, currently surpass our bandwidth limitations. This leads to significant problems, especially if we attempt to run multiple programs or applications simultaneously. With Google Fiber, not only would our problems with system outages, lags, and slow upload/download speeds be solved, but we would be able to implement many new high bandwidth applications, including large-scale Google Hangouts, streaming HD educational video for participants, and real-time data backup for girls' work files, program evaluation data, and administrative data.

3. Briefly describe how your organization is interested in advancing your technology.
Girlstart is exclusively dedicated to STEM education for girls. Because STEM is all we do, we have a strong interest in expanding and maintaining our status as an innovator in STEM teaching, and in continually advancing the technology that we use. Technology is an integral part of STEM, not just as a core discipline itself, but because it also has wide-reaching applications in science, engineering, and math. As the state of current technology changes, Girlstart must also continue to update our curriculum and tools, so that the educational opportunities and experiences that we offer to underserved community members keep pace with those available to students who have more resources open to them.

   Girlstart works constantly to advance our technology, both in terms of the software and applications and the hardware and variety of platforms used in our curriculum. In recent years, Girlstart has added 3D design and 3D printing, cloud storage, computer animation, and app development using tablet devices to our technology toolbox. We have also dramatically increased the amount of online content we offer at no cost through the Girlstart blog and DeSTEMber. However, Girlstart must continually develop new program content, using new technologies as they become available to us, in order to sustain girls' interest in STEM and prepare them for the increasingly tech-oriented workplace. Girlstart works hard both to keep our technology (hardware and software) current, and to identify and utilize new technologies, programs, and systems to improve the quality of our programming. We would be extremely grateful for the opportunity to advance our technology—including our computer labs, website functionality, data management, and program content—to the cutting-edge level offered by Google Fiber, and to explore all the additional potential opportunities created by Google Fiber.

4. Does your organization have the capacity and resources to advance your technologies? Please explain.
Girlstart has many important resources necessary to advance our technologies: knowledgeable and capable staff, strong relationships with donors who can help us obtain the necessary hardware (Google, Dell, National Instruments), room in our budget for equipment & facility upgrades, many dedicated volunteers (including many from our corporate partners in the technology sector) who help set up and troubleshoot our computer systems, the support of our Board, staff, and community members, and experience transitioning to new technologies. Moreover, Girlstart program staff are continually seeking new ways to advance and improve our technological capabilities—having the capacity to do so is part of their job description—and our organizational culture is based on principles of innovation, creativity, and forward thinking.

Practical Pragmatic

(responses required for all agencies)

1. Will the connection help your organization financially? How?
   Google Fiber would provide significant budget relief to Girlstart by reducing our current telecom/internet expenditures ($9000 budgeted for FY14), but more importantly, it would represent a major technological upgrade at a very low (or no) cost. Since Girlstart continually invests in technology upgrades, this momentous step for Girlstart would greatly increase the value of all other technology investments we may make in future years.

2. Will this be the organization's primary or secondary connection?
   If Girlstart is connected through Google Fiber, we would prefer to use Google Fiber exclusively and would terminate our current connection. However, since Google Fiber would be primarily used to enhance program content, if Girlstart's administrative and office use began to detract from Google Fiber's use in our programs, Girlstart would switch back to a basic connection for office needs, and use Google Fiber exclusively for our programs.

3. Does your organization have (or will it have) equipment necessary to connect?
   Girlstart has all the equipment necessary to support our current connection, and we have strong relationships with community partners and supporters who can help us identify and obtain any additional equipment we may need. We currently have two dedicated computer labs with internet connections, as well as a third, mobile laptop "lab," which we take to other program sites but also use at the Girlstart STEM Center, and several tablet devices. We anticipate investing in additional tablets, as our app development lessons were very popular during our 2013 Summer Camps. We also have budget allocations to support any necessary technology upgrades. The benefits to Girlstart of having a Google Fiber connection would far outweigh any equipment costs, so Girlstart does not foresee any problems in justifying these expenses to our Board.

4. Does your organization currently have access to a high bandwidth connection?
   Girlstart currently uses a Time Warner Cable business class connection, at 7 Mbps downstream x 768 Kbps upstream (or "up to" 15 Mbps downstream x 2 Mbps upstream). Higher bandwidth connections are available through TWC but are cost prohibitive for Girlstart; we upgraded our bandwidth temporarily to support our online DeSTEMber initiative in 2012, but even the 75 Mbps x 5 Mbps connection offered at $320/month did not provide sufficient bandwidth for our DeSTEMber traffic and content.

Applicant's Statement

I certify that answers given herein are true and complete to the best of my knowledge. I understand that false or misleading information given in my application will result in disqualification. I understand and agree that I am required to abide by City of Austin ordinances, policies and rules.

I understand if selected to receive a Google Fiber connection that the organization I represent may be required to:

☒ submit an annual report to the TARA Office explaining how the organization has benefited from the free service.

27 Sept 2013

Signature | Date

Title

Please submit this form to TARA by 4:45 p.m. on Monday, September 30, 2013.

Email: digital.inclusion@austintexas.gov

Address: City of Austin – TARA - Municipal Building
124 W. 8th Street, Suite 210
Austin, Texas 78701