Facilities and other Resources

The project will be conducted at the [School/Institute/Department] at Boston University. The department provides a supportive intellectual community for research and training.

Computing and Information Services

The BU Research Computing committee provides strategic leadership and vision to accelerate BU research with leading research technology infrastructure and services. Committee members collaborate with IS&T to leverage industry partnerships or sponsored programs to enhance and expand the impact of BU research infrastructure. Committee scope ranges from advanced networking to high performance computing, big data, specialized research applications, and computationally intensive research support across a wide range of disciplines. This committee is a partnership between the faculty, IS&T and the office of the VP Research.

Boston University Library System

Mugar Memorial Library is the main humanities and social sciences library at Boston University and is located at the heart of Boston University's Charles River Campus.

Mugar Memorial Library opened in 1966 and since then, librarians at Mugar and its branches have continued to develop collections that support the research and instructional needs of the University community. The Mugar Library's print collections broadly support the arts, humanities, and social sciences. In addition, Mugar Library provides online access to 500 databases, 150,000 journals, and over a million eBooks.

Data management services are available through the BU Libraries. Research Computing Services provides computing, storage, and visualization resources and services to support research that has specialized or highly intensive computation, storage, bandwidth, or graphics requirements. Typical applications include bioinformatics, geographic information systems (GIS), statistics, data analysis, molecular modeling, scientific and engineering simulation, and visualization. Research Computing resources and services are widely used by researchers across both the Charles River and Medical campuses.

The primary computing resource is BU's Shared Computing Cluster (SCC), a heterogeneous Linux cluster with an array of storage options located at the Massachusetts Green High Performance Computing Center (MGHPCC). A broad selection of software for scientific research computing is supported.

Consulting and programming assistance are available from the scientific and visualization programmers and consultants and system administrators. Tutorials and training materials are also available for getting started and becoming more proficient with the resources.

COMPUTER: Boston University is a major research university and provides the most up-to-date computer technology. Computer workstations at Boston University's Department of Sociology are equipped with high-speed computers. [Principal Investigator] uses a Dell desktop and Lenovo ThinkPad laptop. These computers are networked to a high-capacity laser printer, and internet. The

Sociology Department also maintains a variety of software programs at its computer workstations. [Principal Investigator] requires straightforward statistical software like SPSS and Stata to carry out the proposed analyses; all are available at BU.

Research Computing Services manages the Shared Computing Cluster (SCC), a heterogeneous Linux cluster for the Boston University research community. The SCC is composed of both *shared* (completely subsidized by the University and available to all researchers at no cost) and *buy-in* (researcher owned with priority access) compute nodes and storage components accommodating a wide range of researchers' requirements and resources. The *Storage-as-a-Service* program is available for "renting" storage.

Over a petabyte of storage for research data is available in several configurations. All of it uses hardware RAID to protect against data loss due to disk drive failures and *Snapshots* to recover files that may have been accidentally deleted. A storage service called *STASH* provides an inexpensive means of maintaining a second copy of data off-site. Additionally, a limited amount of space which is automatically backed up an off-site location is provided for disaster recovery. All of the above configurations are offered with an option to conform to dbGaP requirements.

A wide range of programming languages, parallelizing compilers, mathematical and scientific libraries, graphics and visualization software, and discipline-specific software packages is maintained on the Cluster. Many help pages on this software are written specifically for getting started on the SCC.

Consulting and Training are available for the full range of Researchers' needs, from getting started to maximizing performance on the SCC.

Access to the SCC is via the campus and region's high-performance networking. The campus core utilizes 10-Gigabit Ethernet with multiple 10-Gigabit links to the Boston/Cambridge NoX node and two pairs of 10-Gigabit connections to the MGHPCC.

OFFICE: [Principal Investigator] has a large private office at Boston University with computer, filing cabinets, and landline telephone. No additional space or resources are required to carry out the Core C leader responsibilities. Boston University supports research with a variety of resources, including access to an extensive selection of library volumes and electronic journals, as well as newspaper databases. All of these resources are available to the investigator through her affiliation with the College of Arts and Sciences and Department of Sociology.

BU's Mugar Memorial Library and its branches provide materials that support the curriculum and research needs of members of the Boston University community. Since the late 1980's, electronic resources (e-resources) have become increasingly valuable tools for research at BU. E-resources include, but are not limited to, online journals, indexing and abstracting services, reference sources, and full-text books.

Visualization resources include graphics and virtual reality facilities and software as well as staff expertise to support a broad range of research application areas.