

**1.7 FACULTY AND OTHER RESOURCES. THE SCHOOL SHALL HAVE PERSONNEL AND OTHER RESOURCES ADEQUATE TO FULFILL ITS STATED MISSION AND GOALS, AND ITS INSTRUCTIONAL, RESEARCH AND SERVICE OBJECTIVES.**

1.7.a A concise statement or chart defining the number (headcount) of primary faculty in each of the five core public health knowledge areas employed by the school for each of the last three years. If the school is a collaborative one, sponsored by two or more institutions, the statement or chart must include the number of faculty from each of the participating institutions. See CEPH Data Template 1.7.1.

**Table 1.7.a- CEPH Data Template 1.7.1 Primary Faculty by Core Knowledge Area**

<b>Department</b>	<b>AY 2013-14</b>	<b>AY 2014-15</b>	<b>AY 2015-16</b>
EOH	11	11	12
Epi/Bio	30	30	31
EXNS	10	11	13
GH	17	18	17
HP	38	N/A	N/A
HSML	8	N/A	N/A
HPM <sup>1</sup>	N/A	45	38
PCH	25	23	24
<b>TOTAL</b>	<b>139</b>	<b>138</b>	<b>135</b>

<sup>1</sup>The Departments of Health Policy (HP) and Health Services Management & Leadership (HSML) merged into one department called Health Policy Management (HPM) in AY 2014-15. N/A indicates no data available during these periods before, and then after, the merger. Does not include one LOA in EOH Department.

1.7.b. A table delineating the number of faculty, students and SFRs, organized by department or specialty area, or other organizational unit as appropriate to the school, for each of the last three years (calendar years or academic years) prior to the site visit. Data must be presented in a table format (see CEPH Data Template 1.7.2).

**CEPH Data Template 1.7.2 Student Faculty Ratios by Department  
Fall 2015**

	HC Primary Faculty	FTE Primary Faculty	HC Other Faculty	FTE Other Faculty	HC Total Faculty	FTE Total Faculty	HC Students	FTE Students	SFR by Primary Faculty FTE	SFR by Total Faculty FTE
EOH	12	11.1	10	0.3	22	11.4	59	41.3	3.7	3.6
Epi/Bio	31	30.5	15	0.9	46	31.4	166	140.7	4.6	4.5
EXNS	13	12.8	47	8.9	60	21.7	182	171.3	13.4	7.9
GH	17	14.3	9	0.7	26	15.0	113	70.3	4.9	4.7
HPM	38	34.0	47	6.3	85	40.2	331	237.5	7.0	5.9
PCH	24	23.2	35	2.6	59	25.8	169	135.3	5.8	5.3
MPH@GW	22	14.9	84	16.7	106	31.6	702	421.9	28.3	13.4
BS, PH	9	2.7	4	0.8	13	3.4	61	61.0	23.0	17.9
<b>SPH TOTALS</b>	<b>135</b>	<b>125.8</b>	<b>163</b>	<b>19.6</b>	<b>298</b>	<b>145.5</b>	<b>1783</b>	<b>1279.3</b>	<b>10.2</b>	<b>8.8</b>

Data collected from 2015 fall faculty data and 2015 fall student census. Does not include faculty on LOA. One additional student (.33 FTE) can be counted toward total student headcount (1784)- a Certificate in PH student who does not fit into any specific department.

**Fall 2014**

	HC Primary Faculty	FTE Primary Faculty	HC Other Faculty	FTE Other Faculty	HC Total Faculty	FTE Total Faculty	HC Students	FTE Students	SFR by Primary Faculty FTE	SFR by Total Faculty FTE
EOH	11	10.1	16	1.2	27	11.3	61	46.1	4.6	4.1
Epi/Bio	30	30.0	20	1.6	50	31.6	179	135.9	4.5	4.3
EXNS	11	11.0	42	7.9	53	18.9	181	169.7	15.4	9.0
GH	18	13.9	10	1.6	28	15.5	117	83.1	6.0	5.4
HPM*	45	40.0	16	4.2	61	44.1	258	196.7	4.9	4.5
PCH	23	20.6	24	2.0	47	22.5	165	130.9	6.4	5.8
MPH@GW	18	14.6	52	10.5	70	25.1	399	240.9	16.5	9.6
BS, PH	8	2.4	4	0.9	12	3.3	68	67.4	28.7	20.7
<b>SPH TOTALS</b>	<b>138</b>	<b>125.5</b>	<b>128</b>	<b>18.3</b>	<b>266</b>	<b>143.9</b>	<b>1428</b>	<b>1070.7</b>	<b>8.5</b>	<b>7.4</b>

Data collected from 2014 fall faculty data and 2014 fall student census. Does not include faculty on LOA.

**Fall 2013**

	HC Primary Faculty	FTE Primary Faculty	HC Other Faculty	FTE Other Faculty	HC Total Faculty	FTE Total Faculty	HC Students	FTE Students	SFR by Primary Faculty FTE	SFR by Total Faculty FTE
EOH	11	11.0	7	0.5	18	11.5	61	41.6	3.8	3.6
Epi/Bio	30	30.1	7	0.7	37	30.8	180	137.8	4.6	4.5
EXNS	10	10.0	45	8.5	55	18.5	175	166.6	16.7	9.0
GH	17	15.0	4	0.5	21	15.5	150	107.4	7.2	6.9
HPM	38	33.1	15	4.0	53	37.1	145	106.1	3.2	2.9
HSML	8	6.8	3	0.7	11	7.5	85	67.4	9.9	9.0
PCH	25	23.4	15	2.3	40	25.7	193	157.8	6.7	6.1
MPH@GW	11	6.8	15	1.8	26	8.5	107	67.4	10.0	7.9
BS, PH	8	2.4	6	1.2	14	3.6	60	60.0	25.5	16.9
<b>SPH TOTALS</b>	<b>139</b>	<b>129.4</b>	<b>96</b>	<b>17.1</b>	<b>235</b>	<b>146.5</b>	<b>1156</b>	<b>912.2</b>	<b>7.0</b>	<b>6.2</b>

Data collected from 2013 fall faculty data and 2013 fall student census. Does not include Faculty on LOA.

**NOTE:** The MPH@GW and BS, PH faculty headcount and FTE's are NOT included in the SPH Totals because these faculty are appointed to specific departments and therefore are already counted in the department totals. The purpose of showing MPH@GW and BS, PH as separate line items is to account specifically for the Student Faculty Ratio for these distinct programs.

\* **2014-15:** Departments of Health Policy and Health Services Management & Leadership have merged to Health Policy & Management

**LEGEND:** HC= Headcount FTE= Full time Equivalent SFR = Student/Faculty Ratio LOA = Leave of Absence

**1.7.c. A concise statement or chart defining the headcount and FTE of non-faculty, non-student personnel (administration and staff).**

The SPH has 187 staff members, with over 52% employed in research or research support functions within the individual units.

**Table 1.7.c Staff Headcount**

UNIT	HEADCOUNT		FTE	
	Research	Other	Research	Other
EOH	6	6	6.0	6.0
EPI/BIO	23	7	22.2	6.8
EXNS	2	4	1.5	4.0
GH	2	4	2.0	3.5
HPM	34	15	33.5	15.0
PCH	17	11	16.7	10.9
<b>Dean's Office/Operations<sup>1</sup></b>				
<i>Communications/Marketing</i>	0	7	0	7.0
<i>Development</i>	0	1	0	1.0
<i>Operations/Dean's Office</i>	0	12	0	12.0
<i>Admissions/Student Affairs</i>	0	13	0	12.6
<i>Technology</i>	0	6	0	6.0
<i>Research</i>	0	4	0	4.0
<i>Distance Education</i>	0	4	0	4.0
<b>OVERALL TOTAL</b>	<b>84</b>	<b>94</b>	<b>81.9</b>	<b>92.8</b>

Data from GW Human Resources Information System (HRIS) as of September 2015.

<sup>1</sup>Seven units shown here roll up to Dean's Office/Operations

**1.7.d. Description of the space available to the school for various purposes (offices, classrooms, common space for student use, etc.), by location.**

The SPH currently operates in three locations on the Foggy Bottom campus and on the GW Ashburn campus in Virginia. The majority of the faculty and staff and the teaching and study spaces are located at the main building at 950 New Hampshire Ave. Additionally, almost 100 faculty, staff and research personnel are located at 2175 K Street, 200 steps from the main building. In addition there are four wet laboratories located on 23<sup>rd</sup> Street at Ross Hall in the Medical School (also close to the main building). Further afield, there is an exercise science laboratory at the GW Virginia campus in Ashburn, Virginia. We are in the final planning stages to build out 30,818 feet<sup>2</sup> of wet laboratory, research, teaching and office space in the new GW Science and Engineering Hall located at 22<sup>nd</sup> and I street. Occupancy is planned for late July 2016.

## **The School of Public Health Building**

The SPH had a unique opportunity to create a building that would embody our values in the heart of Washington DC. The overall plan was to create a physical environment that would embody our commitment to inclusion throughout all eight floors of the new 115,000 feet<sup>2</sup> building. The building offers technologically advanced classrooms, laboratories for the EXNS department, athletic and yoga studios, offices, study areas, four auditoriums and a state of the art convening center, all designed with healthy and environmentally sustainable features throughout. Faculty and staff began occupancy in the spring of 2014, with classes in the new building beginning in the 2014 summer semester.

Within the building, there are 8,200 feet<sup>2</sup> dedicated to classrooms and interactive learning, with another 10,500 feet<sup>2</sup> dedicated to auditoriums for more lecture-style classes. The convening center can be partitioned into four distinct rooms with full audio visual technology capability. These can be used for educational purposes or as locations for health conferences for external public health audiences and community civic activities.

The building has 122 offices, 148 cubicle work stations, six conference rooms, 18 classrooms ranging in size from 20 to 50 student capacity. The main auditorium on the first floor holds 220 people while two on the lower floor have 97 and 102 seat capacity. The seventh floor is the location of the fourth large executive case-study room seating 75.

Furniture in the classrooms is conducive to interactive learning, with movable chairs and easy-to-use AV technology, providing an inspiring learning and teaching environment for students and faculty alike.

Opportunities for collaboration among students and faculty are evident throughout the building, highlighted by the student lounges with flexible furniture and white boards on every floor. Included in the building are:

- automated wheel chair accessible bathrooms and office suites on two floors;
- a transgender bathroom;
- a mother's room with a refrigerator;
- an abundance of private and public spaces for students to work together or individually, meditate or pray;
- kitchens for students on three separate floors, with refrigerators and microwaves so that students have the option of bringing, storing and preparing their own food. The school also has vending machines that only sell healthy food and snacks, the first of their kind on the campus and already popular with students as well as faculty and staff and;
- Over 400 lockers for students to have space to use each semester to keep personal items/ classroom supplies.

**2175 K Street:**

The SPH occupies 7,644 feet<sup>2</sup> on the second floor and 12,056 feet<sup>2</sup> on the fifth floor. The second floor houses the School's development, communications, project management, events and IT staff, in addition to eight research staff dedicated to the Prevention and Community Health Program. The fifth floor houses Health Policy and Management faculty and research staff.

**Ross Hall in the GW Medical School:**

The Milken Institute currently operates four wet laboratories under a shared service agreement with the medical school. These laboratories are approximately 4,000 feet<sup>2</sup> and are described in Criteria 1.7.e.

**Virginia Science & Technology Campus:**

The Department of Exercise and Nutrition Sciences houses a physiology laboratory at the Virginia Campus in Ashburn.

**GW Science and Engineering Hall:**

In July 2016, the School will occupy the 7<sup>th</sup> floor of the new Science and Engineering Hall. This 30,818 feet<sup>2</sup> space will include 15,260 feet<sup>2</sup> research laboratory space, a 3,002 feet<sup>2</sup> public health teaching laboratory, 26 private offices, 90 open workstations, 3 conference rooms, a 1,422 feet<sup>2</sup> BSL-level 3 laboratory and common space.

For more information, see **ERF 1.7.d. Additional Facilities Information and Science and Engineering Hall.**

**1.7.e. A concise description of the laboratory space, and description of the kind, quantity and special features or special equipment**

The SPH now occupies significant state-of-the-art laboratory space for the following groups and more is under construction:

950 New Hampshire Avenue Building (Foggy Bottom)-Department of Exercise & Nutrition Sciences (3,159 total feet<sup>2</sup>):

- Exercise Physiology Teaching Laboratory (400 feet<sup>2</sup>)
- Exercise Physiology & Metabolism Laboratory (441 feet<sup>2</sup> )
- Exercise & Nutritional Biochemistry Laboratory (310 feet<sup>2</sup>)
- Anatomy & Physiology (A&P) Teaching Laboratory (491 feet<sup>2</sup>)
- Prevention, Assessment, Care & Treatment Laboratory (657 feet<sup>2</sup>)
- Body Composition Laboratory (354 feet<sup>2</sup> )
- Exercise & Nutrition Sciences Laboratory (506 feet<sup>2</sup> )

Additionally, two large exercise rooms (1,375 & 1,079 feet<sup>2</sup>) and a yoga studio (639 feet<sup>2</sup>) are on the basement level of our main building.

Ross Hall (Foggy Bottom) (~4,000 total feet<sup>2</sup>):

- Department of Environmental & Occupational Health: Environmental Health- Laboratory & office space -M. Perry (794 feet<sup>2</sup>)
- Department of Environmental & Occupational Health: Antibiotic Resistance Action Center- L. Price (700 feet<sup>2</sup>)
- Department of Epidemiology & Biostatistics: Public Health Immunology-Laboratory- M. Ghosh (472 feet<sup>2</sup>)
- Department of Epidemiology & Biostatistics: Public Health Microbiology-Laboratory & equipment room-J. Jordan (1,820 feet<sup>2</sup>)

VSTC (Ashburn, Virginia):

- GW Weight Management and Human Performance Laboratory (3,000 feet<sup>2</sup>)

Science and Engineering Hall (SEH)- 7<sup>th</sup> floor-Occupancy scheduled for June 2016 (all Ross Hall Laboratories will move to this new space):

- Research and Laboratory support (15,260 feet<sup>2</sup>)
- Teaching and Laboratory support-(3,002 feet<sup>2</sup>)
- Private offices- 26 (3,156 feet<sup>2</sup>)
- Open workstations- 90 (3,269 feet<sup>2</sup>)
- Common space (meeting and break areas)

For details on space planned in the Science & Engineering Hall, see **ERF: 1.7.e.: Science & Engineering Hall**

Complete information about the SPH laboratory space is included in the **ERF 1.7.e.: Laboratory Space**.

**1.7.f. A concise statement concerning the amount, location and types of computer facilities and resources for students, faculty, administration, and staff.**

The GW Division of Information Technology provides computing, information, and network services to the entire campus community. A campus-wide network for data, voice, and video communication provides phones, data, and video connectivity for students, faculty, and staff. The University also provides many services for faculty, staff, and students, such as cloud-based email, calendaring, and document management from Google and Microsoft, and wireless network access covering nearly 100 percent of all George Washington University's campus locations. In addition, the GW Academic Technologies Division oversees the conference rooms and classroom technologies in Milken Institute SPH Building in conjunction with support from the SPH Information Technology Department. The rooms are equipped with AV systems that include a computer, projector/digital displays and sound systems. There is also access to a lecture capture system and Blackboard. There are several computing laboratory spaces that are available to students both in the GW Himmelfarb library and in the Milken Institute SPH building

itself. Licensed software freely available to faculty, students and staff through George Washington University includes: Microsoft Office 2010, Adobe Acrobat, EndNote, SPSS, and Symantec Endpoint Protection anti-virus software.

Every full-time faculty, administration and clerical staff member has a University computer personally assigned to him or her, which is routinely upgraded with current technology. Each unit is maintained by The Milken Institute School of Public Health IT staff. Faculty members have the option of selecting the type of computer (laptop or desktop) and features best suited to their teaching, administrative and research needs.

The SPH has established a state-of-the-art infrastructure to fulfill the research needs of our faculty, research staff and their students as it relates to high-speed data analysis, data storage, and collaborative data sharing. This service is customized for SPH researchers and provides a comprehensive suite of analytical software applications and a secure centrally managed, cloud-based data storage service. Researchers, including graduate students and post-doctoral fellows, may use the system to (a) store and preserve their research data for future research and “training” sets for students; (b) work with both small and large-scale research datasets, and (c) collaborate more effectively on research with colleagues and students across departments and other schools.

For research needs that use high-performance computing for data analysis, there is a shared high-performance computing cluster named Colonial One, which is implemented and managed by professional staff in the Research Services Group within the GW Division of Information Technology, Colonial One is housed in the GW's enterprise-class datacenter that is located on the Virginia Science and Technology Campus. The datacenter features professional IT management by GW's central Division of IT, including 24-hour on-premise and remote environment monitoring with hourly staff walk-throughs; redundant power distribution including UPS (battery) and generator backup; redundant cooling systems utilizing a dedicated chilled water plant and a glycol refrigeration system; and direct network connectivity to GW's robust 100 Gigabit fiber optic network.

**1.7.g. A concise description of library/information resources available for school use, including a description of library capacity to provide digital (electronic) content, access mechanisms, training opportunities and document-delivery services.**

### **Collections**

The George Washington University's extensive library collections are housed in the Melvin Gelman Library, the general academic library (<http://library.gwu.edu/>), the Jacob Burns Law Library (<http://www.law.gwu.edu/Library/Pages/Default.aspx>), the Paul Himmelfarb Health Sciences Library (<http://himmelfarb.gwu.edu/>), the Eckles Memorial Library on the Mount Vernon campus (<http://library.gwu.edu/eckles>), and the Virginia Science and Technology Campus Library (<https://virginia.gwu.edu/library>). These collections contain over 2 million volumes and over 20,000 serials and provide an extensive collection of general and specific volumes, periodicals, and papers in

health services administration, health policy, business, medical care, economics, operations research, law, human resources management, statistics, and basic sciences. All are important to the SPH and are readily accessible to students and faculty.

The Himmelfarb Health Sciences Library, the primary library for the SPH, is located in Ross Hall, one block from the school's new building, and also serves the School of Medicine and Health Sciences and School of Nursing. The Library currently provides electronic access to over 3,031 textbooks, 3,926 journals, and 100 major databases. Himmelfarb provides extensive on-site access to online, print and audiovisual collections, as well as access to computers and study areas. The Library's print collections include approximately 100,000 volumes, selected print journals for browsing, and access to extensive journal back files. Over the past two years, monographic holdings in public health subject areas were extensively reviewed and expanded. The Library's audiovisual collections include more than 400 current DVD and CD titles as well as applications software for word processing, publishing, spreadsheets, databases, and reference management and dozens of specialized software titles focused on medicine, the health sciences, public health, and statistical analysis. Key health sciences databases include MEDLINE, SCOPUS, Global Health, and Health Policy Reference Center. Students also have access to major interdisciplinary databases such as Business Source Complete, ABI/Inform Complete, and Academic Search Premier. The library provides electronic journals directly from publishers or through a vendor such as ABI/Inform, Clinical Key, Ovid, or LexisNexis. The full-text of electronic journals can be accessed from the library catalog, the e-journals page (<http://ck8gh5qu6z.search.serialssolutions.com/>), and via links within databases. The library uses the Libguides system to organize subject- and class-specific resources for students (<http://libguides.gwumc.edu/guides>). There are 92 subject guides available for public health areas of focus such as health leadership and management, health information technology, epidemiology, health statistics, long-term care, health care quality, health policy, and health economics. General study guides on topics such as citation styles and reference management are also available. The Himmelfarb librarians schedule periodic events to orient students and faculty to their resources and services.

The entire Himmelfarb collection can be searched using a web-friendly online catalog:

(<http://catalog.himmelfarb.gwu.edu/iii/encore/?jsessionid=85DC7B0167E482E38E091A0C59125359?lang=eng>). All electronic resources are accessible through the Library's home page at [himmelfarb.gwu.edu](http://himmelfarb.gwu.edu) from both on and off-campus through secure links. Faculty members are regularly surveyed for input on the collection-- most recently in spring 2013. There are also radio buttons entitled, *Request Library Purchase*, throughout the library's web page seeking patron input. A number of key resources are also available for mobile devices and can be downloaded through "the App Shelf" at <http://himmelfarb.gwu.edu/apps/>.

Off-campus access to electronic resources is available for all students and faculty members in one of three ways: 1) GW Virtual Private Network (VPN). The VPN is available to anyone with a login and password for the University e-mail system. It is maintained by the University's Division of Information Technology. 2) WRLC Library Services gateway—the proxy service provided by the Washington Area



Research Library consortium to its nine members. Faculty, staff and students access this service using their GWID number (a unique University identification number). 3) EZ Proxy—a subscription proxy service with passwords created by the Library. This last service is used primarily for faculty members with appointments who have not yet been fully processed by the University for access through the VPN or WRLC Library Services. All 3 systems have proved reliable and provide a certain amount of needed redundancy. Directions and tutorials for using these systems are available on the Library’s web page.

For additional information about the General Library Services, Computing Support and Access to Services Beyond the Library see **ERF 1.7.g.: Library Resources**.

#### 1.7.h. A concise statement of any other resources not mentioned above, if applicable

**Biostatistics Center:** <http://www.bsc.gwu.edu/bsc/index.php>

*Note: The Center, currently under OVPR, houses SPH faculty and is in transition to move administratively to the SPH. Most faculty are members of Milken Institute SPH Epi/Bio; grants are through the SPH.*

**University Student Affairs:** <http://students.gwu.edu/gw-student-affairs-departments>

*Includes University Center for Career Services, University Counseling Center, Student Health Services, International Services Office, etc.*

**University Writing Center:** <http://students.gwu.edu/career-services>

**Compliance Training and Skillport Online Learning:** <http://ode.hr.gwu.edu/online-learning>

**Disability Support Services-** <http://disabilitysupport.gwu.edu/>

**University Human Resources:** <http://hr.gwu.edu/>

**SPH Resources for Faculty:** <http://publichealth.gwu.edu/services/faculty>

1.7.i. Identification of measurable objectives through which the school assesses the adequacy of its resources, along with data regarding the school’s performance against those measures for each of the last three years.

**Table 1.7.i.: Assessment of Faculty and Other Resource Adequacy**

<b>Outcome Measure</b>	<b>Target</b>	<b>AY2013/14</b>	<b>AY2014/15</b>	<b>AY2015/16</b>
Student to faculty ratio	<b>&lt;10</b>	7.0 SFR (primary faculty) 6.2 SFR (total faculty)	8.5 SFR (primary faculty) 7.4 SFR (total faculty)	10.2 SFR (primary faculty) 8.8 SFR (total faculty)
Percent of undergraduate students satisfied or very satisfied with space	<b>Classroom – 90%</b> <b>Laboratory – 90%</b>	67% 58%	94% 95%	Data not yet available
Available Classroom space (% utilization for fall term)	<b>70%</b>	N/A (no building)	40%	43%
Percent of undergraduate students who are satisfied or very satisfied with library services	<b>90%</b>	88%	89%	Data not yet available*
Percent of undergraduates satisfied or very satisfied with career counseling services	<b>90%</b>	86%	81%	Data not yet available*
Percent of graduate students satisfied or very satisfied with career counseling services	<b>80%</b>	60%	58%	Data not yet available*
Percent of graduate students who use career counseling services	<b>80%</b>	54%	64%	Data not yet available*

\* This data is generally available late November – early December.

**1.7.j. Assessment of the extent to which this criterion is met and an analysis of the school’s strengths, weaknesses and plans relating to this criterion.**

This criterion is met.

**Strengths:**

- Growth in faculty numbers and expertise.
- Occupy own building for the first time ever.
- Student:Faculty ratio supports high level of engaged learning.

**Challenges:**

- Growth in School still necessitates a few additional locations, even after opening the new building.

**Future Plans:**

- Develop and complete build-out of laboratories and offices in the Science and Engineering Hall.