



Steps to Establishing an RDC

Microdata Access Division

Statistics Canada

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This document supersedes all previous documents

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Preface

This document describes the steps required by Statistics Canada for establishing a Research Data Centre (RDC). The document lists the general requirements for all RDCs. The information provided in this document is intended to assist universities beginning to plan for the establishment of an RDC, after the Canadian RDC Network has approved their proposal. A host university needs to consult with Statistics Canada concerning the requirements discussed in this document before committing funds or resources to a new RDC facility. Statistics Canada is solely responsible to determine if a facility and system meet the requirements for hosting Statistics Canada data.

The standards and procedures applied by Statistics Canada continue to develop and be refined to ensure continuing effective risk management of the RDCs and to meet evolving Treasury Board and Shared Services security requirements and policies. Statistics Canada consults with universities and other stakeholders in the continuing development of standards and procedures. However, Statistics Canada will implement standards and procedures necessary to manage risks in the RDCs as identified through regular audits and in response to emerging threats.

This document is based upon Statistics Canada documentation which provides detailed standards, criteria and policies for establishing, inspecting, operating and auditing of an RDC. Please see the relevant documents listed in Appendix B for specific details. Statistics Canada specifications and standards are to be considered as minimum requirements for establishing an RDC. The host university can exceed these specifications. To request consultation with Statistics Canada or detailed documentation, please contact:

Research Data Centres Program
Email: MAD-HOOU@statcan.gc.ca
Tel: 613-951-1472
Fax: 613-951-4942

This document does not provide information on the Canadian Research Data Centres Network (CRDCN) process for submission and review of a proposal for development of an RDC. This document also does not discuss the funding, budget matters and related considerations for establishing and operating an RDC within the CRDCN. Please contact the CRDCN to request information on these topics. The CRDCN contact information is available at: <http://www.rdc-cdr.ca>.

Statistics Canada's mandate and objectives

Our mission: Serving Canada with high-quality statistical information that matters

In Canada, providing statistics is a federal responsibility. As Canada's central statistical office, Statistics Canada is legislated to serve this function for the whole of Canada and each of the provinces and territories. Under the Statistics Act, Statistics Canada is required to "collect, compile, analyse, abstract and publish statistical information relating to the commercial, industrial, financial, social, economic and general activities and conditions of the people of Canada."

Access to trusted statistical information underpins democratic societies, as it supports evidence-based decision-making in the public and private sectors, and informs debate on public policy issues. One of Statistics Canada main objectives is to provide statistical information and analysis about Canada's economic and social structure to develop and evaluate public policies and programs and improve public and private decision-making for the benefit of all Canadians. The RDCs contribute to meeting this objective by extending access to microdata to researchers across the country for statistical analysis of economic, health and social conditions in Canada.

The Role of the Research Data Centres

The RDCs are part of an initiative by Statistics Canada, the Social Sciences and Humanities Research Council, and university consortia to help strengthen Canada's social research capacity and to support the policy research community. RDCs provide researchers with access, in a secure university facility, to microdata from population and household surveys. The RDCs are staffed by Statistics Canada employees. They are operated under the provisions of the Statistics Act in accordance with Statistics Canada's policies and Treasury Board standards for security and confidentiality. RDCs are accessible only to researchers with approved projects who have been sworn in under the *Statistics Act* as 'deemed employees' of Statistics Canada. RDCs are located throughout the country, so researchers are not required to travel to Ottawa to access Statistics Canada microdata.

Part 1: The Comprehensive and Integrated Approach to Confidentiality and Security in the RDCs

Statistics Canada is committed to the privacy of individuals. Statistics Canada’s commitment to maintaining the confidentiality of the information obtained from the Canadian public is enshrined in the Statistics Act and the Agency's various policies and practices related to data collection, analysis and dissemination activities as well as the Privacy Act. All information provided to Statistics Canada through surveys, the Census or any other source is confidential.

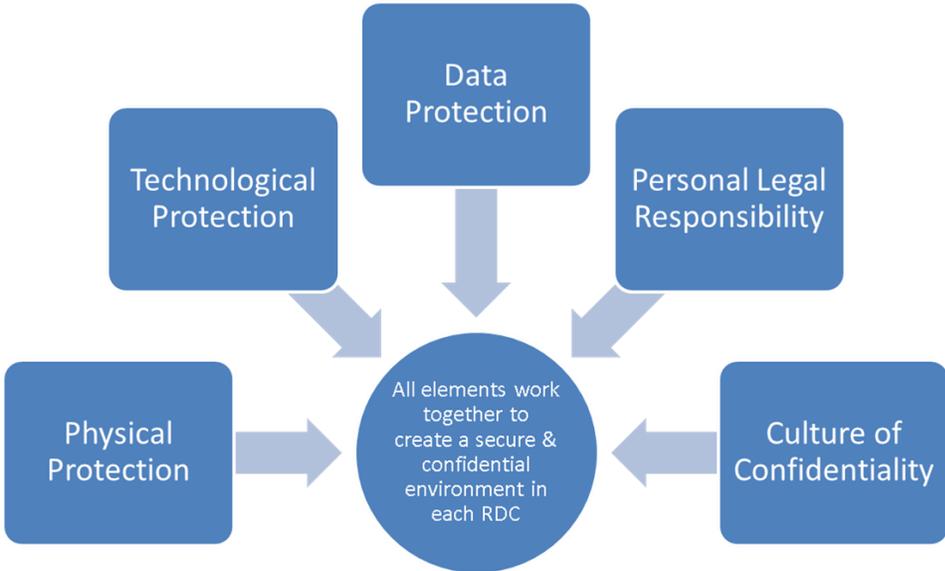
The RDCs have developed and maintain a multifaceted approach to data confidentiality and security to ensure the RDCs uphold Statistics Canada’s commitment to maintaining the confidentiality of personal information. Security and confidentiality in the RDCs needs to be understood holistically as a comprehensive and integrated framework of controls and responsibilities within an established culture of confidentiality.

The RDCs’ integrated approach to protecting data confidentiality and security comprises five elements:

- Physical protection
- Technological protection
- Data protection
- Personal legal responsibility
- Culture of confidentiality

The five elements¹ complement each other and in combination create an integrated comprehensive approach to confidentiality and security within each RDC (Figure 1).

Figure 1: The integrated comprehensive approach to confidentiality and security in the RDCs



¹ The security controls of each element are described in the Communiqué on Active Monitoring.

Physical protection in each RDC facility includes: security controls for door entry and document storage; prohibits use of personal data storage devices in the RDC (e.g., laptops, cell phones, and USB drives); and follows protocols and monitors activities such as visitor access, printing and shredding of documents. Statistics Canada employees are trained to maintain and actively monitor the physical protection controls in the RDCs.

Technological protection includes the: prohibition of any external connection to the RDC secure network; locked storage of the server within the RDCs; and researcher workstations which do not allow storage of data or transfer of files to external storage devices or media (e.g., laptops, USB drives). Statistics Canada employees authorize and manage researcher network accounts based on Microdata Research Contracts signed with Statistics Canada.

Data protection is ensured because Statistics Canada Analysts review all information researchers request for removal from the RDCs for potential confidentiality risk based on established rules and procedures. All information including statistical results and all notes or documents must pass the vetting process controlled by RDC Analysts to ensure any potential risk to confidentiality is substantially mitigated.

Personal legal responsibility of each researcher as a deemed employee of Statistics Canada is established through the swearing or affirming the Oath of Secrecy, security status accreditation, and signing the Microdata Research Contract and the Values and Ethics Code. Statistics Canada paid employees have these same legal responsibilities established through swearing or affirming the Oath of Secrecy, and signing agreement with the obligations and terms of their employment contract and the Values and Ethics Code.

Culture of confidentiality is the conduct of each researcher and Statistics Canada employee to abide by and not contravene the Statistics Act and the policies and procedures of Statistics Canada. The culture of confidentiality is established in the RDCs through the initial training of each researcher during an orientation session and provision of the Researcher's Guide. The training of researchers is maintained and enhanced by Statistics Canada employees through ongoing discussions and interactions during all stages of the research project life cycle. A researcher may be required to participate in another orientation session if an RDC Analyst deems it necessary to repeat this training for the researcher. Statistics Canada employees are trained and supervised to establish and maintain the culture of confidentiality within the RDCs.

The long term relationships between Statistics Canada and many researchers in the RDCs is integral to the maintenance and enhancement of the culture of confidentiality within the RDCs. From the beginning of the RDC initiative at universities, Statistics Canada focused on developing long term partnerships with leading and respected academics at each university to act as role models for other researchers in the RDCs. The Academic Directors and other key academics in leadership roles as research supervisors and mentors contribute to the maintenance and enhancement of the culture of confidentiality in the RDCs.

Risk Management for the RDCs

Collectively these elements are mutually re-enforcing. The extent of risk management for the RDCs is enhanced by the integrated nature of the security and confidentiality framework summarized here. Risk management for the RDCs needs to be understood in terms of the whole framework for data protection and confidentiality. A narrow focus on specific elements will miss the mutually re-enforcing quality of the overall framework.

Part 2: The Development Path of an RDC

The host university for the new proposed RDC site should establish a steering committee to coordinate the development of the new RDC site and the longer term development of the RDC. It is advisable to include stakeholders and partners from across the university community on this committee. Experience has demonstrated that the RDC steering committees can be instrumental in identifying resources for the RDC, finding solutions to challenges as they arise, developing promotional activities and materials, and implementing training for skills and knowledge relevant to research in the RDC.

Each new RDC is established as a branch site of an established RDC referred to as the RDC main site through this document. There are important advantages for establishing a new RDC as a branch site:

- 1) A branch RDC can be established with reduced operating hours and fewer workstations than is common with a main RDC site. This can be an important advantage for universities where the initial or ongoing level of research activity is expected to be relatively less than at main RDC sites. The relatively lower number of operating hours and smaller number of workstations in a branch RDC will allow for a more modest commitment of funds and resources than is required for the operation of larger more developed RDCs. This is a more sustainable long-term approach for some RDC sites where the level of research activity may not be expected to support the larger commitment of resources associated with a main RDC site with a full-time RDC Analyst.
- 2) The initial development of a new RDC site is more effectively facilitated when connected with a main RDC site. An RDC Analyst at a main RDC site will train and supervise the Statistical Assistants at the branch site. This supervision from an RDC Analyst at a main RDC site ensures the operations and services at the branch site are consistent with Statistics Canada standards and procedures.

The branch RDC is staffed by one or more part-time Statistical Assistants employed by Statistics Canada. The Statistical Assistants are trained and authorized to provide nearly all the RDC standard services delivered by Statistics Canada. The important exceptions are that Statistical Assistants are not authorized to administer the Oath of Secrecy, deliver orientation sessions to new researchers or university IT staff working in the RDC, or release researchers' results and other documents from the RDC. These services are provided by the Statistics Canada RDC Analyst at the RDC main site. The Statistical Assistants are directly trained and supervised by an RDC Analyst through the main site.

Over time, as an RDC branch site develops, the number of weekly hours of operation and research workstations can be increased to meet research demands. There is also the option to locate a Statistics

Canada RDC Analyst at the RDC branch site to provide all services. The decision to locate an RDC Analyst at an RDC branch site is dependent upon funding, and the level of research activity at the branch RDC and in the regional network of the main and branch RDCs.

Part 3: The RDC Facility

The RDC includes a university computer laboratory, secure server room, and office(s) for Statistics Canada employees within a single secure facility. The Statistics Canada general requirements for physical security, server room security, and employee workspace are described below. The Statistics Canada documentation with detailed specifications are referenced as appropriate. Health and safety general requirements are also briefly described in this section. There are also optional workspaces such as meeting and instructional rooms described in this section which may be considered. Finally, consideration should be given to planning for the future workspace needs as the activity increases in the RDC over time.

3.1 Physical Security

Statistics Canada physical security requirements listed in the security audit report and physical inspection checklist encompass the physical features of the RDC such as: external perimeter; door entrance; entry control and monitoring; alarm system; workstation layout; document storage; and other physical features. Below are general descriptions of the physical security elements common in the RDCs. Please consult with Statistics Canada for detailed specifications of Statistics Canada's requirement for each of these components (documents listed in Appendix B).

3.1.1 The External Perimeter

The RDC facility must be wholly enclosed within an external security perimeter. The external walls, ceiling, windows and door for the RDC must meet the physical security specifications of Statistics Canada.

3.1.2 The Door Entrance

The physical features of the door must meet the Statistics Canada requirements for external door construction, installation and lock mechanism. In general, the door is recommended to be a solid core or steel panelled construction. Hinges should be protected or tamper-proof. The door will require key lock mechanism to manually lock and unlock the door if the electronic door entry control system fails to function. The key lock must use a high-rated security lock. Statistics Canada will provide signage for the door exterior indicating that access is restricted to only authorized personnel.

It is recommended to locate a door bell button at the exterior door entrance into the RDC facility. The door entrance remains locked at all times. During RDC operating hours, only individuals with a valid authorization pass for the door entry system will be able to enter without staff assistance. The door bell is convenient for notifying the Statistics Canada employee when an individual requiring assistance is waiting outside the RDC facility without a valid authorization pass.

3.1.3 The RDC Security Alarm System

The minimum components required by Statistics Canada for the RDC security alarm system are the door entry control system and a motion sensor system. Other security alarms such as fibre optic wiring for equipment may also be used in the RDC, but are not required by Statistics Canada.

The security alarm system for the RDC facility is to be monitored at all times by the university security service or a private alarm monitoring service under contract with the university. An alarm must be signalled to the monitoring service when there is unauthorized access through the door entrance or when motion is detected in the RDC facility outside RDC operating hours. It is recommended that an alarm also be signalled to the monitoring service when the door remains open for a prolonged period of time at any time during RDC operating hours or outside of RDC operating hours.

3.1.4 Door Entry Control and Monitoring

The facility door access must be managed and monitored through a door entry control system. The door entry control system must be capable of restricting access to only specific individuals authorized by Statistics Canada to enter the facility. The door entry control system and lock mechanism must restrict access to the RDC facility by researchers and university staff (excluding university security officers) to only RDC operating hours when a Statistics Canada employee is on site. The door entry control system and lock mechanism must be capable of granting access to the RDC outside of RDC operating hours only to Statistics Canada employees and university security officers.

The door entry control system must be monitored at all times by the university security service or a monitoring service contracted by the university. Door access privileges can be administered by the university or the Statistics Canada employees in the RDC; however the individuals authorized for access and their access expiry dates must be specified by a Statistics Canada employee.

The door security system must be capable of producing regular reports of all door entries into the RDC facility. The regular door entry monitoring reports must provide the person's name or identification number, date and time of each person who enters the RDC at any time. The door entry reports must be produced for review by Statistics Canada employees on a regular basis consistent with Statistics Canada's security monitoring standards.

3.1.5 Physical Layout and Design of Workstations in the RDC

Statistics Canada requires periodic visual monitoring of the door and all researcher workstations by the Statistics Canada employee during RDC operating hours. The office workstation for the Statistics Canada employee should have clear sight lines of the RDC entrance door and all researcher workstations. The use of video cameras may be an acceptable means of visual monitoring in some facilities.

A researcher while at work should not have direct view of another researcher's computer monitor if these researchers are working on different RDC projects. This requirement can be accomplished by the: layout of workstations to prevent direct view of other screens from each workstation or from another work area; placement of dividers between workstations; or the use of privacy screens on monitors. The university must consult with Statistics Canada concerning the proposed layout and design of workstations in the RDC facility prior to construction or renovations.

3.1.6 Document Storage

The researchers' materials including printouts and handwritten notes produced in the RDC are deemed by Statistics Canada to be confidential material. As confidential material, all researcher printouts and handwritten notes must be stored in a secure cabinet. The Statistics Canada employee will have sole access to this cabinet to retrieve and return documents for researchers. It is recommended to have a separate cabinet for documents used by Statistics Canada employees. It is important to consult with Statistics Canada concerning the location of cabinets and the minimum requirements for lock and security mechanisms for the cabinets.

3.2 Employee Offices in the RDC

A secure office within the RDC facility is required for the Statistics Canada employees. It is recommended that the university IT services staff also have an office or dedicated workspace in the RDC. A secure lockable door is required for each office in the RDC. The Statistics Canada employee is required to lock the office when she or he is outside the RDC. The configuration of an office or offices in the RDC needs to be determined in consultation with Statistics Canada to ensure that the security, operational, health and safety requirements are met. The Academic Director and other university employees (excluding IT staff) should not have office space in the RDC.

The number of offices in the RDC should be based on the number of Statistics Canada and university IT employees working concurrently in the RDC. It is possible for employees to share an office if it is a sufficiently large space for multiple workstations. Public Works and Government Services Canada provides recommendations on the minimum office workspace allocation for employees. However, it is recommended that each employee have a separate office to facilitate meetings with researchers for orientation sessions, discussing requests for releasing results, and asking questions concerning data, contracts or other matters. A private office² is also necessary for meetings with Statistics Canada supervisors and other colleagues. It is important to consider additional office workspace to meet future needs for additional employees as research activity increases in the RDC over time.

Each RDC staff office should have a workstation area including an Internet computer and a computer connected to the RDC server. These must be two separate computers as described in the information technology section below. The Statistics Canada employees will require at least one office telephone line and a printer.

The RDC staff office and another secure lockable room in the RDC should include scanning and photocopying equipment. This equipment will be shared by all RDC staff. This equipment is required in the RDC for the scanning or photocopying of documents protected by government policies on information access and privacy. This equipment must not be located in the RDC laboratory area. Statistics Canada at its sole discretion may authorize use of photocopy, fax, and scanning devices outside the RDC facility in a university office area. However, this could limit the range of operation activities and thus services available in the RDC.

² Existing RDCs that do not have a separate office must add one when renovating, moving or expanding the facility.

3.3 The Secure Area for the Server and Related Equipment in the RDC

The RDC will require server equipment for data storage and network administration. The RDC will also require encryptor and network switch equipment authorized for use in the RDC by Statistics Canada. The server and encryptor equipment will be located in a secure area within the RDC facility that is within the external perimeter of the RDC. This secure area within the RDC facility can be a server room or a server cabinet. The server room or cabinet must meet the IT security requirements specified by Statistics Canada. The secure server and encryptor area must have a secure lock to restrict access to only Statistics Canada employees and authorized deemed employees (i.e., university IT personnel). It is an expectation of Statistics Canada that the secure server room or cabinet will meet applicable health and safety requirements for heat exhaust and acoustic protection for all persons using the RDC facility. The server will not be located in the Statistics Canada employee's office.

3.4 Meeting Room in an RDC

A meeting room can be a useful facility within an RDC, although it is not required by Statistics Canada in an RDC facility. A meeting room improves the functionality of the RDC for researchers and employees. The meeting room can be used by research teams to discuss their project within the RDC facility. Researchers can bring output and notes into a meeting room for discussions. When similar meetings are organized outside the RDC facility, the output and notes must first be vetted by an RDC Analyst to ensure the information meets Statistics Canada rules for protecting confidentiality. The requests to release such documents may not be completed for several days or longer depending on the queue of requests, the characteristics of the requested output, and other operational constraints. Additionally, requesting release of output for intermediary results is generally discouraged. When the RDC facility includes a meeting room, the need for vetting intermediate outputs can be reduced and thus lowers the potential for confidentiality concerns related to releases over the course of the research project which could restrict the release of some final results. Controlling the volume of intermediate outputs to be vetted also contributes to the operational efficiency of the RDC.

A meeting room can also be useful for orientation sessions and other meetings between a Statistics Canada employee and researchers. This can be particularly important if the RDC office will have multiple workstations for employees to concurrently work or where the office space is limited in size.

A meeting room can also facilitate teaching and training in the RDC. Workshops, short courses, or semester courses can be facilitated in the RDC. Statistics Canada has developed procedures for facilitating teaching and training in the RDCs. It is important to consult with Statistics Canada if the host university is interested in designing the RDC facility to support teaching and training activities.

When a meeting room is being considered for an RDC facility, Statistics Canada must be consulted for details on appropriate layout and visual monitoring sight lines.

3.5 Internet Access for Researchers

Statistics Canada prohibits Internet access by researchers within the RDC computer laboratory, staff office, and meeting room areas. Internet access may be provided for researchers outside the workstation area in a separate room in the RDC or outside the RDC facility. If the host university intends

to provide Internet access for researchers, it is necessary to consult with Statistics Canada to confirm operational constraints and requirements.

3.6 Lockers for Storage of Research Personal Equipment and Material

Statistics Canada recommends that lockers be provided for researchers to store personal equipment and material while working in the RDC facility. Researchers are required to keep equipment such as personal computers and cell phones in a locker, a personal bag or pocket. The use of lockers improve the security of personal equipment and material. If lockers are located in the RDC facility, it is important to consult with Statistics Canada on the specifications for approved lockers and locks, as well as the location and use of lockers for RDC researchers.

3.7 Health and Safety Standards

The university is responsible for providing a healthy and safe work environment for the Statistics Canada employees. Statistics Canada has the responsibility and the right to remove Statistics Canada employees from a hazardous or unsafe work environment. It is an expectation of Statistics Canada that staff work areas, and the RDC facility in general, meet the applicable health and safety standards for employees at the host university. The applicable building standards for fire safety need to be met for: fire alarm; fire sprinklers; fire extinguisher; emergency lighting; and emergency exit access and signage. The health and safety standards applicable for university office workspaces need to be met for: regular cleaning services; air quality, ambient temperature control, lighting; acoustic levels; adequate workspace; and emergency facilities and materials. The RDC facility and offices should be considered an employee workspace when evaluating health and safety matters. However, Statistics Canada procedures and restrictions on facility access must be respected at all times. Please see the section below concerning university cleaning and custodial services for further information.

It is common for only one Statistics Canada employee to be on site in the RDC facility. The emergency and safety protocols used for university employees working alone in an isolated area should be applied to the RDC facility within the constraints of the Statistics Canada access restrictions for the RDC facility. It is preferable to locate the RDC facility in a public area within sight of university employees to improve RDC employee safety and security. It is recommended to install an emergency alert button in the RDC facility to alert other staff in the building or the campus security to an emergency.

The standard university workplace medical and emergency materials are expected to be provided by the host university for the RDC facility. At a minimum, these materials should include the standard medical supply package for an office workplace, and a flash light for safe exit during a power outage.

3.8 Future Growth Capacity

It is important to design the RDC facility to enable a substantial increase in research activities and employees over the long-term. It has been the experience of many RDCs that the research activity and the associated employee complement have increased substantially more than had been expected at the initial planning of the RDC facility. Designing the RDC facility to accommodate a substantial increase in research activity and employee workspace over the long-term is important. If the RDC facility is not capable of accommodating substantial increases in research activity and employee office workspace, the

operational constraint could significantly limit the number of projects and researchers which could be serviced in the RDC over the long term. It is important for the host university to consider what future functionality may be required in the RDC facility such as meeting rooms.

Part 4: RDC Information Technology and Network

This section describes the information technology (IT) architecture, network and administration within and between RDCs. The IT security documents listed in Appendix B provide details on Statistics Canada's security requirements for IT equipment and systems.

4.1 RDC IT Network

The RDC IT network is comprised of the local network within each RDC, and the network for secure communications between RDCs and Statistics Canada. The IT network between RDCs and Statistics Canada is referred to the wide-area network (WAN). The WAN is the secure network through which confidential microdata and information are transferred between RDC sites and Statistics Canada's head office.

Each new RDC (where the Canarie Network exists) will be added to the central active directory on the rdc-cdr domain. Three back domain controllers have been established to minimize loss of authentication service. Each RDC site has the option to configure a read-only domain controller to further mitigate the risk from WAN communication interruptions.

4.2 RDC IT Architecture and Approval Process

Each new RDC must submit an IT Architectural proposal that follows the current Treasury Board security requirements to the Chief of the RDC Program for review and approval by Statistics Canada and Shared Services Canada (SSC) IT security. Each proposal must follow the standard template which includes detailed descriptions and diagrams of the RDC site's internal network and how it will connect to the WAN. The Chief of RDC Program will provide the template and diagram listed in the Appendix.

A branch site may choose to arrange to use the server at the main site to reduce IT equipment and service costs. If the branch site will connect to the main site server, rather than directly connecting to the WAN, then this architecture must be indicated in the template.

The IT architecture inside the RDC facility is composed of three areas: the operations, restricted and access zones. The operations zone includes all workstations in the laboratory area and staff offices along with printers. In a thin client environment the VDI server sits in the operations zone as well. The restricted zone includes the file server, the processing server and the domain controller. There is a communication switch between the operation and restricted zones. The access zone includes: the encryptor which encrypts data leaving the centre and decrypts data entering the centre; and a communications switch which connects the internal network with the secure external network. Statistics Canada staff will coordinate the provision and configuration of the encryptor and switch for the access zone. Costs for this will be determined for each new centre.

4.3 Workstations for Researchers

Researchers are permitted to access, manipulate and analyze microdata only through specified computers in the RDC laboratory area. The researcher computers are used for accessing and working with their RDC project files stored on the RDC server. Only authorized and licensed software is installed on computers for use by researchers. The researcher computers have extensive security controls to ensure network and data security. These security controls are specified in Statistics Canada's IT security documentation. Some of the significant restrictions on researcher computer use through the security controls include preventing storage of researcher files on the computer's local drives and file transmission to or from the computer and external media or devices. These IT security policies are implemented centrally by Statistics Canada on the central domain.

The location of researcher computers is an important consideration. The capacity for visual monitoring of activity at researcher workstations is a component of the active monitoring of security controls by Statistics Canada employees. A researcher working at one workstation should only be viewing her or his own screen. Barriers should be used to restrict the view of other screens while working at a workstation. Please consult with Statistics Canada on the location of workstations and security controls for computers.

4.4 Workstations for Staff

The office computers are only authorized for use by Statistics Canada employees and the deemed employee university IT personnel. Staff computers must be protected through placement in a secure staff office or as otherwise authorized by Statistics Canada.³ Each staff workstation will have one staff computer connected to the RDC server and a second staff computer connected to the Internet.

The Internet computer is required for email and Internet services. The host university is responsible for providing a university email address for the RDC and Internet service for staff use. A web camera is required for the Internet computer to facilitate Internet video calls between the RDC Analyst at the main site and researchers for completing the personnel screening application, oath of secrecy and the orientation session. The placement of the web camera must comply with Statistics Canada security requirements.

4.5 Printer, Shredder, Scanner, Photocopier, and Fax Equipment

Printer and shredder equipment should be located in the RDCs in accordance with Statistics Canada's configuration and access specifications. The Statistics Canada employees will also require scanning, photocopying, and faxing services. It is recommended that the host university provide equipment for scanning, photocopying, and faxing in the RDC staff office or another secure lockable location in the RDC facility. This equipment cannot be located in the RDC operations area where it is accessible by researchers. Scanning, photocopying and faxing services can be provided in another office in the building if this is operationally efficient.

³ Statistics Canada has the discretion to authorize placement of staff computers into secure cabinets if staff office space is not available. This will only be considered by Statistics Canada in exceptional circumstances.

4.6 Telephone and Fax Services

The host university will provide at least one telephone line with voice messaging and long distance services for Statistics Canada employees' use. The telephone will be located in the RDC facility for staff use for teleconference meetings and contact with other employees and researchers. The host university will also provide a facsimile service for use by the Statistics Canada employees. It is recommended that the facsimile service be provided within the RDC facility. However, the facsimile service can be provided through another office in the building if this is operationally efficient.

Part 5: RDC Facility and IT Inspections Required Prior to Beginning Operations

Statistics Canada will conduct physical and IT inspections of the RDC branch site prior to opening the RDC branch to researchers. The criteria for the inspections are outlined in the checklists listed in the appendix. Each Statistics Canada inspector will produce a report with requirements that will need to be met before confidential microdata can be placed in the centre and then be opened to researcher. The Statistics Canada RDC Program Regional Manager or an equivalent representative will attend the inspections as they will be responsible to work with the Academic Director to resolve any outstanding requirements that need to be met. The travel costs for these inspections will be reimbursed to Statistics Canada by the university.

Part 6: Statistics Canada's Supervision, Human Resource Management, and Staff Roles and Responsibilities in the RDC

This section describes Statistics Canada's staffing practices, roles and responsibilities in the RDCs. Statistics Canada places a high priority on the selection, training, and supervision of employees to ensure the maintenance of effective security controls, delivery of high quality services, and efficient operations in the RDCs.

6.1 Roles and Responsibilities of the Regional Manager, Analysts and Statistical Assistant

All Statistics Canada employees affirm or swear the oath of secrecy, and thus employees are required to protect respondent confidentiality and abide by the policies of Statistics Canada. Statistics Canada employees in the RDCs are trained and supervised to maintain and verify the security controls in the RDCs.

The RDC Regional Manager is a Statistics Canada supervisor who is generally responsible for multiple RDC sites and specific portfolios in the RDC Program. The RDC Regional Manager directly supervises the RDC Analysts located at the RDC sites for which he or she is responsible. The RDC Regional Manager works with the Academic Director for each RDC site to arrange the requested number of operational hours, and resolve facility and operational issues at each RDC site. The RDC Regional Manager will work with the Academic Directors for the main and branch sites to determine the number of full-time and part-time RDC Analysts and the hours and numbers of Statistical Assistants at the main and branch sites.

The RDC Analyst at the main RDC site is responsible for the daily scheduling of work in the main and branch sites such as supervision and training of Statistical Assistants, active monitoring of security controls, confidentiality vetting, orientation sessions and other meetings with researchers, and related duties. When a RDC Analyst is located at a branch RDC, the RDC Analysts at the main and branch sites may coordinate work activities between the main and branch RDC sites in accordance with any agreements between the host universities for the main and branch RDC sites.

The Statistical Assistants are responsible for daily operations in the RDC as assigned by the RDC Analyst. Statistical Assistants are trained and authorized to perform all standard operations in the branch site with the exception of: staff supervision, administering the oath of secrecy and orientation sessions for researchers, and confidentiality vetting. Generally, Statistical Assistants refer questions on data and documentation to the RDC Analyst unless the Statistical Assistant has knowledge of the data source.

Statistical Assistants are hired by Statistics Canada as part-time employees to enable maximum flexibility with weekly hours of work and to minimize hiring cost and time. It is recommended to employ at least two Statistical Assistants at a branch site. This provides greater continuity of operations with fewer disruptions in scheduled operating hours due to staff absences and turnover.

6.2 Relationship between the Academic Director and Statistics Canada Employees

The Statistical Assistants and RDC Analysts reported solely to the Regional Manager. Statistics Canada is the sole employer for these employees. The supervision, training and remuneration of these employees are provided by Statistics Canada. Statistics Canada is contracted to provide services to the RDC site for each host university. The Regional Manager will work with each Academic Director to ensure sufficient staffing is provided for the requested number of hours of operations at each site, and to address facility and operational issues. The Academic Director will work principally with the Regional Manager.

6.3 Statistics Canada's Hiring Process

Statistics Canada will hire Statistical Assistants for the RDC branch, who demonstrate a high level of dependability and relevant knowledge and experience for RDC operations. A valid security status with Statistics Canada is a condition of employment. The hiring process is supervised by the RDC Regional Manager. The hiring process used is compliant with the appropriate Statistics Canada, Public Service Commission and Treasury Board staffing regulations and policies.

Staff turnover in the RDCs is costly for Statistics Canada and host universities in terms of supervisory time, training, operational efficiency, and service quality. There can also be interruptions in RDC operating hours if staff availability is insufficient. Statistics Canada places high priority on reducing staff turnover. RDC Analysts are usually permanent Statistics Canada employees who work full time, are highly skilled and well trained and are making careers in the Public Service. However, our experience has been that Statistical Assistants are generally graduate students who leave the position following graduation. A branch site can reasonably expect to hire a new Statistical Assistant approximately every 18 months or more frequently.

6.4 Statistics Canada's Training for Employees

Statistics Canada employees in the RDCs participate in standardized course instruction, job-specific instruction on-site, and an annual training workshop in Ottawa. Employee participation in these training activities varies with their respective positions in the RDCs. RDC Analysts participate in standardized course instruction to ensure Public Service standards of excellence in the RDCs and facilitate professional development. RDC Analysts also participate in an annual training workshop designed to advance job specific skills and expertise. Participation in these training activities requires the RDC Analysts to be absent from the RDCs during scheduled periods. On-site training for RDC Analysts is provided through teleconferences, webinars, and on-going supervision from Regional Managers.

Statistical Assistants receive training from RDC Analysts using standardized training itineraries and resources, and site specific instruction for the RDC Analyst and/or an experienced Statistical Assistant. RDC Analysts provide on-going supervision and instruction to Statistical Assistants. Training for Statistical Assistants is generally provided at a distance by an RDC Analyst through telephone or Internet video calls. It is recommended to have at least one day of in-person training with an RDC Analyst when a Statistical Assistant is initially hired. In-person training will require the Statistical Assistant to travel to the RDC main site or for the RDC Analyst to travel to the RDC branch site. These costs are the responsibility of the university.

6.5 Statistics Canada's Human Resources Administration and Services

Statistics Canada provides comprehensive human resources administration and services for all employees. Employees can access harassment complaint, conflict resolution, and employee assistance services as necessary.

Regional Managers monitor work time reports to ensure hours worked are consistent with budgeted hours of work over the course of the year.

Part 7: University Services, Roles and Responsibilities

The host university will provide services which are critical to the successful operation and security of the RDC. This section describes the services which the university will be responsible for providing to the RDC.

7.1 Academic Director

The host university will designate an Academic Director for the RDC. The Academic Director is required to obtain and maintain the necessary Statistics Canada security status. The Academic Director is generally a faculty member of the host university. The Academic Director will be the liaison between Statistics Canada, the university and the CRDCN. The Academic Director will ensure university services are provided to the RDC as required for the effective operations and security of the RDC. The Academic Director for the RDC branch site is responsible for negotiating the MOUs between:

- Statistics Canada and the their university for the RDC branch site to reimburse Statistics Canada for start-up related expenditures

- The RDC branch site's host university and the RDC main site's host university for on-going services and finances.

Please refer to section 8 for further information on the MOUs

The Academic Director will primarily work with the Statistics Canada Regional Manager to address issues concerning the RDC facility, operations and services.

The Academic Director is also responsible for ensuring the annual progress reports and final products are delivered for each RDC project by the respective principal investigator. Annual progress reports and final products are important measures of research activity in the RDC. These research activity measures are a component of the funding allocation for the RDC.

7.2 University IT Services

The host university is responsible for providing a university email address for the RDC staff use. This will be the email contact address to be used by the RDC staff for communications with Statistics Canada and researchers. The host university is also responsible for designing and maintaining a university website for the RDC branch. The website will be designed and administered by a university employee. The RDC can decide not to maintain a website and instead use the CRDCN website. This arrangement is organized with the Knowledge Transfer Office for the CRDCN. The university should consult with the CRDCN regarding best practices and recommendations for an RDC local website. The Statistics Canada employees can assist in providing content for the RDC website.

The host university is responsible for provision, installation, configuration and maintenance of the IT equipment and software in the RDC facility including the server, laboratory and employee workstations, printer, and related technology. Statistics Canada will provide the IT security specifications which must be maintained and verified on a regular basis. The university's IT service is responsible for working with the RDC employee(s) to ensure equipment and software meets Statistics Canada's IT security specifications at installation and during regular verification of the IT security controls in the RDC. This includes regular updates to operating systems and all software including antivirus applications

Statistics Canada will provide configured encryption and network switch devices to connect to the RDC wide-area network (WAN). The installation of this equipment will be the university's responsibility.

The university IT services are responsible for the regular back-up of user files on the RDC server. The back-up procedures will comply with Statistics Canada's IT security requirements, and should be consistent with best practices for backing-up user files. The Statistics Canada IT security specifications will always take precedent above the university's practices.

The university is responsible for purchasing, installing and maintaining software for the RDC. The university will ensure that software is installed and updated in accordance with Statistics Canada's IT security specifications. Maintaining and regularly verifying compliance with Statistics Canada's IT security controls is important for protecting data security both in the local RDC and across the RDC network.

The university IT employee(s) who provide IT services in the RDC are required to be a ‘deemed employee’ of Statistics Canada. The deemed employee status is a legislative and Statistics Canada policy requirement for access to a system with confidential microdata. The university IT employee(s) will be required to obtain and maintain a valid security status with Statistics Canada. Statistics Canada is not responsible for reimbursement of any expense, such as fingerprint documentation, incurred by any individual who applies for a Statistics Canada security status. As well, the university IT employee is required to affirm or swear to the Oath of Secrecy and attend an orientation session provided by the RDC Analyst.

7.3 University Security Services

As outlined in Section 3.1.3 the host university is responsible for providing an alarm monitoring service for the RDC facility, which is connected to Campus Security to ensure that a security patrol service will respond to an alarm at the RDC facility. The RDC facility will have an alarm system to alert an unauthorized entry into the RDC facility outside RDC operating hours. The host university is responsible for providing a service to monitor the RDC alarm system at all times outside RDC operating hours. The alarm monitoring service may be provided through a university service or a commercial alarm monitoring service under contract with the host university.

The host university will also provide a security patrol service which will respond to all alarm incidents in the RDC facility. The security patrol service will have authorization to enter the RDC facility outside RDC operating hours for the purpose of responding to an alarm incident. The patrol security service will ensure the RDC facility is properly secured and the alarm system activated before leaving the RDC facility after responding to an alarm incident outside RDC operating hours. The patrol security service will use the emergency contact procedure and list provided by Statistics Canada for reporting an alarm incident in the RDC facility. The security patrol service is generally a university service, or it may be a commercial security patrol service under contract with the host university. It is the expectation of Statistics Canada that the security patrol officer who responds to alarm incidents have training, supervision and security status appropriate for a security patrol service in the university’s jurisdiction.

7.4 University Custodial Services

The host university is responsible for providing custodial cleaning and maintenance services appropriate for a computer laboratory and employee offices at the university. These services should be provided regularly and include as a minimum: vacuuming, garbage and recycling disposal, desk cleaning and dusting, cleaning of carpets and blinds, replacement of light bulbs and ventilation filters as appropriate. All custodial services in the RDC facility will be provided by the host university while a Statistics Canada employee is present in the RDC and available to escort the custodial workers. The host university is responsible to schedule these services during RDC regular operating hours. Custodial workers are not authorized to enter the RDC when a Statistics Canada employee is not in the RDC facility to escort them.

7.5 University Facility Management Services

The host university is responsible for providing facility management and services appropriate for facility repair and renovations as needed for maintaining a healthy and safe work environment for Statistics Canada employees.

7.6 RDC Furniture and Office Supplies

The host university will provide furniture such as chairs, desks, filing and storage cabinets, and tables as appropriate for a computer laboratory and employee office(s). The host university will also provide all stationary supplies and equipment for the efficient operation of the RDC facility and delivery of services by Statistics Canada employees. It is recommended to establish a purchasing account at the university bookstore or other commercial supplier to supply the RDC facility.

7.7 University Mail and Courier Services

The host university will provide standard mail services for the RDC. Statistics Canada will provide courier slips for shipment of contracts, applications and related personal documentation, media such as physical drives for disposal by Statistics Canada, and other material. Generally, the RDC employees will send signed documents by courier to minimize delays in providing data access to new researchers or for new research projects.

7.8 Educational, Training, and Promotional Activities for the RDC

Many universities organize educational, training, and promotional activities associated with the RDC. Typically, these activities are organized by the RDC local steering committee, Academic Director or other university employees. It is recommended that the host university organize annual or more frequent as necessary general information presentations to increase the academic community's awareness of the RDC and the range of research projects which are feasible in the RDC. Educational and training activities ranging from one hour seminars, week long research skill camps, to full credit courses are organized in association with some RDCs to support RDC researchers and further promote use of the RDC.

Statistics Canada employees are responsible for the comprehensive range of services provided to researchers and the RDC facility as described in section 9 below. Statistics Canada employees will have limited time available to assist with these educational, training and promotional activities. The Regional Manager would need to approve the role of a Statistics Canada employee in working on the activities.

Part 8: Memoranda of Understanding

Two separate memoranda of understanding (MOU) form the contractual agreements for establishing a new RDC branch site. The first MOU is a one-time agreement between Statistics Canada and the university hosting the new RDC branch site. The second MOU is a longer term agreement between the universities hosting the new RDC branch site and the RDC main site.

8.1 MOU Between Statistics Canada and the Host University for the Branch RDC

The MOU between Statistics Canada and the host university for the new RDC branch site is for a specified period of time during the establishment of the new RDC branch site and its operations. There are two principal components of this MOU. One component specifies the host university's role and responsibilities for the provision of the RDC facility and equipment, and the services required to support the effective operations of the RDC. The host university agrees to provide the facility, equipment, and

services which meet the security standards and operational requirements of Statistics Canada. This includes, but is not limited to, providing:

- the facility for the RDC which meets the Statistics Canada physical security specifications;
- the facility with an appropriate layout and staff offices to meet Statistics Canada's operational requirements and applicable health and safety standards;
- IT technology and equipment which meets the Statistics Canada IT security specifications;
- office equipment, furniture, software and supplies required for effective operations of the RDC branch site.

Another component of this MOU specifies the host university's responsibility for reimbursement of Statistics Canada's expenses related to the establishment of the new RDC branch facility and operations. These expenses to be reimbursed to Statistics Canada will include, but are not limited to:

- employee hiring and training for the RDC branch site, and supervisor training at the RDC main site
- site visits by a Regional Manager for related staffing, training, inspections, and operational issues
- facility security inspection
- IT security inspection
- head office operational costs related to the establishment of the RDC branch site

8.2 MOU Between the Host Universities for the Main and Branch RDCs

The MOU between the universities hosting the RDC main site and branch site will be a longer term agreement. This MOU will specify the arrangement between the universities for financing the RDC operations at both the RDC main and branch sites. Statistics Canada will submit one invoice to the host university for the RDC main site for annual expenses at the RDC main and branch sites. The MOU between the universities should provide for regular visits by the RDC Analyst from the main site to the branch site for training of new employees at the branch site and other operational matters. The arrangement should provide for at least one annual visit by the RDC Analyst to the branch site, and more often if staff turnover or other operational matters at the branch site require.⁴ The MOU may also specify other arrangements between the universities. For example, the RDC Analyst at the main site provides to the branch site:

- supervision and training of Statistical Assistants
- support for addressing facility, security and operational issues
- orientation and oath of secrecy sessions
- confidentiality vetting of release request and other researcher services.

⁴ Regular supervisory visits from the RDC main site are necessary if an RDC Analyst position is not located at the RDC branch site.

Part 9: RDC Operations

RDC standard operations begin following the signing of MOUs, connection to the WAN, inspections, and hiring and training of employees. Microdata storage and access at the RDC can only begin following Statistics Canada's confirmation that physical and IT security requirements are met at the RDC facility. RDC operations comprise:

- Statistics Canada services in support of the RDCs
- Statistics Canada services for researchers
- University services in support of the RDC
- Research project activities
- Educational and training activities
- SSHRC proposal and application system

This section describes the Statistics Canada services delivered to researchers and in support of the RDCs, the SSHRC application and review services, and the researchers' roles and responsibilities associated with RDC projects. The Statistics Canada human resources and supervisory services provide in support of RDC operations are described in part 6. The university services provided to the RDC are discussed in part 7 above.

9.1 Statistics Canada Services for the RDC

Statistics Canada provides the following services to support the RDC operations. Integral to Statistics Canada's role in the operations of the RDC is establishing, maintaining and monitoring the comprehensive and integrated security framework for the RDC. Part 1 of this document describes the comprehensive and integrated security framework in the RDCs.

9.1.1 Active Monitoring of Security Controls

Statistics Canada employees actively monitor security controls in the RDC. Active monitoring is defined as the regular review of effective controls. For the RDCs, this means that Statistics Canada employees are verifying the security controls often enough to detect any potential security problems.

Regional Managers discuss active monitoring regularly during regional calls to assist RDC Analysts and Statistical Assistants with questions to do with active monitoring for their centres and once a year the Regional Manager visits each site and conducts a review to ensure that controls are effective.

9.1.2 Data Development and Management

Statistics Canada provides the RDCs with a large and diverse range of microdata from household surveys, Census of Population, and increasingly administrative data for populations. Statistics Canada provides documentation and formatted datasets for most of these data sources. Statistics Canada continues to: improve documentation through the data documentation initiative (DDI) and the Information and Technical Bulletin; greater consistency of data management across all data sources through the data repository initiative; and highly secure data stewardship.

9.1.3 Information Management System and Reporting

The RDC Program maintains and continues to develop a comprehensive information management system (CRMS) for the efficient and accurate administration of research projects and researchers in the RDCs. The CRMS ensures that Statistics Canada employees are able to efficiently monitor the expiry dates of contracts and security statuses important for minimizing disruptions in microdata access by researchers. The CRMS is also critical for providing the CRDCN and the host universities with detailed and accurate bi-annual reports on the research activity measurements in each RDC, and across the CRDCN. This information is important for determining required staff levels and planning for future staff requirements. The CRDCN also uses this information as a component of the CRDCN's funding allocations to RDCs.

9.1.4 Business Continuity Services

Statistics Canada is required to manage human, physical, technological and information resources with care and due diligence. This includes developing, maintaining and, if necessary, implementing business continuity and resumption plans. Business resumption planning ensures the return to normal operations for Statistics Canada services in the RDC following a business disruption.

For each RDC site, Statistics Canada develops and implements a business resumption plan in collaboration with the Academic Director. Statistics Canada takes responsibility for business resumption planning for the RDCs by:

- developing a business resumption plan for each Research Data Centre and ensuring that it is integrated with institutional plans of the universities where the centres are located;
- ensuring the safety and security of Statistics Canada employees and deemed employees using the RDCs during any business disruption and recovery period;
- maintaining the security of all confidential data holdings during any business disruption and recovery period.

9.2 Statistics Canada Services for Researchers

Statistics Canada provides comprehensive professional services to researchers. Services are provided to researchers from the beginning steps in preparing a research proposal, through obtaining the required Statistics Canada deemed employee status, orientation to the RDC, contract administration, expert consultation on data sources and concepts, and confidentiality vetting of information requested for release from the RDC.

9.2.1 Application and Proposal Consultation

When a researcher or research team is considering statistical analysis of the microdata available in the RDC, the principal investigator (PI) should consult with the RDC Analyst to determine the:

- relevant data sources for the intended study
- appropriate access service (i.e., RDC, DLI, CDER, etc.)
- appropriate application process (i.e., SSHRC, government focal point)
- clarify information in the proposal to minimize delays during the proposal review
- appropriate time frame the PI should indicate in the proposal for completion of the project.

9.2.2 Security Screening and Oath of Secrecy

As described above, each researcher must sign a Statistics Canada microdata research contract (MRC) as one of the requirements for permission to access confidential microdata in the RDC. Another requirement for microdata access, is to obtain and maintain deemed employee status with Statistics Canada. Statistics Canada is authorized through the Statistics Act to provide access to confidential microdata only to Statistics Canada employees and deemed employees. Researchers are required to become and maintain their deemed employee status with Statistics Canada as one of the conditions for microdata access in the RDC. A researcher may apply for deemed employee status by meeting with a Statistics Canada RDC Analyst in the RDC to complete the Statistics Canada personnel screening application, oath of secrecy, and related documents. Statistics Canada can provide this service to researchers at a branch site through an Internet video call between the main and branch sites.⁵

9.2.3 RDC Orientation Sessions

RDC Analysts provide each new researcher with a comprehensive orientation session and detailed documentation on working in the RDC. The orientation session and documentation focuses on the researchers responsibilities for protecting data confidentiality, maintaining security controls and the culture of confidentiality in the RDC, and meeting her/his other contractual obligations with Statistics Canada.

9.2.4 Contract Administration

A Statistics Canada MRC is required for each RDC project. This contract stipulates the terms and conditions for microdata access in the RDC. The Statistics Canada employees in the RDC prepare the MRC in accordance with RDC policies and procedures. Statistics Canada administers the signing and processing of the contract. RDC policies and procedures specify under what conditions the contract may be amended to add or remove investigators, add data sources, or extend the contract. Following expiration of the MRC, Statistics Canada can consider renewal of data access for the purpose of completing revisions requested by an academic journal for a submitted manuscript from the RDC project. Statistics Canada has developed comprehensive and efficient procedures for contract administration and processing.

⁵ In exceptional circumstances, an Internet video call may be scheduled to complete these documents with a research at a location other than an RDC branch site if travel to the RDC is prohibitively expensive for a short meeting. Statistics Canada will decide when such an arrangement is warranted.

9.2.5 User Account Administration

Statistics Canada employees are responsible for user account administration in the RDCs. Each researcher will be assigned a separate user account and login name for each separate RDC project. Each researcher's user account permissions and expiry date for data access are defined by the legal authorizations provided in the signed MRC for the respective RDC project.

9.2.6 Data Source Documentation and Consultation Services

Statistics Canada provides comprehensive consultation services to researchers on data sources and concepts. RDC Analysts and other experts in Statistics Canada are available to support researchers to answer questions and help identify solutions to complex issues. RDC Analysts have extensive knowledge of the data sources and documentation available in the RDCs. The RDC Program also receives support for researchers' questions on data and concepts from Statistics Canada survey analysts and methodologists. For example, RDC Analysts can work with Statistics Canada colleagues to answer questions from concepts used in the data to data quality.

9.2.7 Confidentiality Vetting for Release of Statistical Output and Other Information

All information requested for removal from the RDC main or branch must be reviewed by the RDC Analyst at the main site to ensure the information meets Statistics Canada's rules for the release of information. The procedure for reviewing information used by the RDCs is referred to as confidentiality vetting. The RDC Analyst will only release information such as statistical outputs, syntax, documentation, notes and other related documents which meet Statistics Canada's confidentiality vetting rules. Statistical Assistants at the branch and main sites are not authorized to release any information from the RDCs such as statistical outputs, syntax, documentation, notes or any other document in printed, written or electronic form.

In general, the release requests from the main and branch sites are managed by the RDC Analyst as a single queue. However, release requests from the branch site may require additional time for release. For example, if the researcher is required to provide additional supporting documentation and the limited hours at the branch site delay the researcher from producing this documentation in the branch site.

9.2.8 Design-Based Analysis and Methods Consultation Services

Researchers are expected to have sufficient expertise in statistical analysis to work independently in the RDC. Students and researchers without expertise in statistical analysis should have one or more team members with the RDC project who are capable of providing training and support in the RDC. However, even researchers with advanced expertise in quantitative methods may have limited or no knowledge or experience in the specialized methods appropriate for estimation using household survey and Census microdata. The RDC Analyst can provide documentation and guidance to assist researchers in choosing appropriate methods for estimation with Statistics Canada's complex multi-stage design datasets.

Statistics Canada's Data Analysis Resource Centre (DARC) also provides expertise to support researchers with complex problems on: the use and adjustment of survey weights; and the survey design-based estimation of variances. DARC can provide critical information to researchers on many aspects of survey data analysis with specific reference to Statistics Canada data.

9.3 Researcher Role and Responsibilities

Each RDC project follows a general path from its initiation to completion. Researchers involved with the project have roles and responsibilities over the course of the project. Researchers are required to submit a study proposal and application for microdata access in the RDCs. Before submitting a proposal and application for microdata access, the principal investigator (PI) should consult with a RDC Analyst to determine the appropriate application process, and to clarify the proposal to minimize delays in the review process. The principal investigator (PI) is responsible for the completeness of the proposal, and the submission of all required documents through the appropriate application process.

The PI and each co-investigator who will require access to the RDC for any component of the project work are responsible for contacting the Statistics Canada employee(s) in the RDC to schedule an appointment to apply for the required Statistics Canada security status, swear or affirm the oath of secrecy, and complete related documents. Each researcher is responsible for submitting all required documents for the personnel screening application process.

Each researcher is responsible for reading and understanding the documentation on their responsibilities and obligations to Statistics Canada. Researchers are required to participate in an orientation session provided by the RDC Analyst which covers the researcher's responsibilities and obligations. Each researcher will swear or affirm the oath of secrecy which is a life-long legal commitment that the researcher makes to Statistics Canada to not reveal any confidential information. The researcher will also sign the Statistics Canada MRC which stipulates the researcher's obligations and responsibilities as a deemed employee of Statistics Canada. Each researcher is responsible for fulfilling the obligations and responsibilities stipulated in the oath of secrecy, MRC and other related documents. An important responsibility of each researcher is to participate in, and contribute to sustaining, the culture of confidentiality in the RDC as discussed above in part 1.

The researchers are responsible for working together and with the RDC Analyst to schedule and prepare complete and correct requests for the release of statistical findings when necessary. Principal investigators (PI) and co-investigators are expected to work together in the RDC rather than requesting the release of results for the purpose of meeting outside the RDC.

Each research is responsible for acquiring and developing the necessary skills and knowledge for using the statistical software and analysing data. The PI or other experienced are responsible for providing any required training or support needed by less experienced and lower skilled researchers on their project team. The Statistics Canada employee(s) in the RDC are not responsible for providing training to researchers on the use of software or statistical analysis.

An annual progress report is required from the PI for each RDC project until the project is completed. The PI is responsible for fulfilling the production and submission of a product as specified in the Statistics Canada MRC. When the proposed product cannot be produced, the PI is responsible for providing a statement confirming a product cannot be produced. Academic output from the RDC projects is an important measure of research activity in the RDC. It is the responsibility of the Academic Director to ensure that annual progress reports and final products are delivered.

9.4 Microdata Access Application and Review Services

The Social Sciences and Humanities Research Council (SSHRC) provides the web application system for microdata access in the RDCs for university researchers who are not under contract with government for their proposed research. The majority of project proposals for microdata access in the RDCs are submitted through the SSHRC web application system. SSHRC provides technical support to researchers for the use of the web application system and updates on the status of their application review.

Applications for microdata access for research contracted by a government department or agency must be submitted through the government focal point review process. Statistics Canada administers this process for government contracted research. Researchers should consult with an RDC Analyst if they have any questions on the appropriate application process to use for their proposed research.

Part 10: Ongoing Facility and IT Inspections and Audits

The Treasury Board of Canada introduced the Management Accountability Framework (MAF) in 2009. A key component of the MAF is risk assessment and risk management. As part of the MAF each senior management team is required to assess all of its programs to identify those with the highest level of risk. The RDC Program was identified as one of the higher risk programs at Statistics Canada because deemed employees are accessing confidential microdata. One of the outcomes of this assessment has been that an annual audit is to be conducted to ensure that the RDC Program has established adequate procedures and requirements to ensure the confidentiality of our respondents is protected. One of the outcomes of the first audit in 2010 was the implementation of site inspections of each RDC site to ensure that the RDC is compliant with the established procedures and security requirements. Each RDC will be inspected every 4 years.

The following chart describes the types of site visits, the purpose and the participants.

Visit Type	Purpose	Required Attendees	Schedule	Outcome
Site Visit	Discuss level of services provided in the local RDC	Academic Director; RDC Chief or Director of MAD; Regional Manager; RDC Staff	Yearly or every other year	Action Items
Site Inspection	Inspect physical and IT security compliance of RDC	Representatives from Departmental Security Divisions, Statistics Canada; Regional Manager; RDC staff	Each RDC every 4 years	Report on recommendations for improvements to physical and IT security to Chief of RDC Program
Audit	Detailed 2 to 3 day	Representatives	1 RDC and	Report on

	audit of physical security; storage of sensitive statistical information; data access start and end dates. Focus of audit can change over time.	of the Audit Division, Statistics Canada; Academic Director; Regional Manager; RDC staff	associated branches every year	recommendations to the Director MAD and then to the Chief Statistician
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Audits and inspections are important for assessing how well procedures and standards are implemented in the RDCs. These regular reviews of the RDCs contribute to identifying how procedures and policies can be better refined and implemented. These reviews also identify where changes are required in the RDC facility and systems to meet Statistics Canada’s security standards. The host university is expected to make specified changes in the facility or with equipment within time periods specified in an inspection or audit report. The findings in the report need to be addressed within the time period specified by Statistics Canada.

Appendix A: Definitions

Academic Director is the host university's official designated to liaise between the host university and Statistics Canada concerning university services and equipment supplied to the Research Data Centre (RDC). The Academic Director is responsible for the host university's financial accounts designated for contract, service, and material expenditures for the operations of the RDC. Typically, the Academic Director is a faculty member the host university. The Academic Director is required by Statistics Canada to attain a "deemed employee" status.

Canadian Research Data Centre Network: The CRDCN is the organization of university partners, funding sponsors, and Statistics Canada that coordinates the network's policies and funding allocations. Universities interested in establishing an RDC will need to follow the application process established by the CRDCN.

Deemed employee status with Statistics Canada is the accreditation required for each individual, who is not an employee of Statistics Canada, to work in the Research Data Centre. Each researcher, Academic Director, and university employee who needs to work in the RDC for academic or business purposes must be a deemed employee of Statistics Canada before beginning work in the RDC. The Statistics Act limits access to confidential information to employees and deemed employees of Statistics Canada. To become a deemed employee of Statistics Canada an individual must obtain the required security status through Statistics Canada, swear or affirm the Oath of Secrecy, and agree to uphold Statistics Canada's policies and the Values and Ethics Code. Each deemed employee assumes the same legal obligations and responsibilities as Statistics Canada employees. Before beginning work in a Research Data Centre, each deemed employee must complete an RDC orientation session. In addition, researchers with access to confidential microdata in the RDC must also sign a Microdata Research Contract with Statistics Canada.

Microdata research contract (MRC) is the legal agreement signed between each researcher and Statistics Canada for a specific research project which states the terms and conditions for microdata access in the RDC and the obligations and responsibilities of each research authorized to access confidential microdata.

On Site: In this document for the purpose of defining when deemed employees are authorized to work in the RDC, a Statistics Canada employee is considered to be on site when she or he is present at the work site or local vicinity. The work site includes the RDC facility and the building where the RDC facility is located or other buildings where normal duties for RDC operations are performed. The Statistics Canada employee is considered to be on site when in the local vicinity of the work site during paid personal breaks and the unpaid lunch break.

Operating hours The RDC operating hours are when a Statistics Canada employee is on site during scheduled work hours. Operating hours include: (1) scheduled hours for researcher work in the computer laboratory, and (2) scheduled IT maintenance hours, visits or meetings when the computer laboratory is not available for researcher use. There may be other periods when the RDC is not available for researcher use due to operational issues and availability of Statistics Canada employees.

Research Data Centre (RDC) includes both main sites and branch sites. A main site RDC is staffed by at least one RDC Analyst and may also have one or more Statistical Assistants. A branch site RDC is staffed solely by Statistical Assistants who are directly supervised by an RDC Analyst at a main site RDC.

Research Data Centres Program: The RDC Program is the unit in Statistics Canada responsible for managing and delivery Statistics Canada services in the RDC facilities. The RDC Program provides microdata access, comprehensive and integrated data and confidentiality protection, and other services described above in the RDCs. The RDC Program is one of the units of the Microdata Access Division.

Researcher is a principal investigator (PI) or co-investigator (CI) of a Research Data Centre research project. Each researcher assumes the legal obligations and commitments as a 'deemed employee' of Statistics Canada through swearing or affirming the Oath of Secrecy, attaining the required security status with Statistics Canada, and signing the Microdata Research Contract, and the Values and Ethics Code.

Statistics Canada employees in an RDC include all RDC Analysts and Statistical Assistants. These employees are solely hired and supervised by Statistics Canada. Other Statistics Canada employees involved with the RDCs include the RDC Program Regional Managers and head office employees.

University personnel include all university staff employees and contractors who provide services or support to the Research Data Centre. All university employees who require access to the RDC are required to be a deemed employee of Statistics Canada with the exception of custodial personnel who provide cleaning services and university security officers.

Workstation: A work area in the computer laboratory or in a staff office. Each workstation will include a computer, monitor(s), keyboard, mouse and physical workspace. The workspace for employees needs to be sufficient to meet operational requirements.

Appendix B: Relevant Documentation

This document summarizes many of the requirements, procedures and policies for the establishment and operation of an RDC. However, it is important to consult the relevant documentation for specific detailed information on requirements, procedures and policies. Below are some of the principal documentation relevant to the establishment and operations of an RDC.

RDC Program Communiqués

IT Verification Guidelines

Statistics Canada – Security Audit Report

Statistics Canada – Security Audit Report: Computer Networks and Connections

Statistics Canada – Proposal for High-Level Network and Security Architecture template

Business Continuity and Resumption Planning Directive

Other relevant information is available from the following sources

CRDCN website: <http://www.rdc-cdr.ca/>

Statistics Canada RDC Program website: <http://www.statcan.gc.ca/rdc-cdr/index-eng.htm>

Social Sciences and Humanities Research Council RDC application website:

https://webapps.nserc.ca/SSHRC/faces/logon.jsp?lang=en_CA

RDC Program Manager’s Report (bi-annual)